

Terror from the Skies



I know the Peregrine as an enemy, whose vivid dark appearance in the sky has often meant death to my stock. When I was a boy and fancied Tumblers, I have seen Peregrines take the pick of my kit high up in the heavens; and afterwards, when I turned to Homers, they killed my young birds right over the loft. Over many years of pigeon keeping, in many places, I have learned to recognize the natural foes of the birds and to guard against them. A good loft and the native wariness of pigeons do much to minimise the risk from vermin and predatory creatures. The danger is when they are in the air: only their wings and wits can save them then.

There are other birds of prey, hawks and hawk-eagles and eagles. The larger of these are rare near town and city, and Homers crossing countryside fly direct and fast and get through. Pigeons have little to fear from the short-winged hawks, because they are such fine fliers and even the Goshawk does not care for the sustained pursuit of a fast-flying quarry that takes to the air. It is only the Peregrine (and its cousin, the smaller but no less deadly Shahn) that will enter into a relentless chase and claim its victim by sheer superiority of flight.



No bird is better equipped for rapine. The Peregrine is so compactly built and balanced that its power and reach are not apparent in repose. See it strike down its prey in the air, and you will have witnessed one of the most impressive sights in nature. The close-flying kit of Tumblers you are watching breaks suddenly, and the birds fly wildly, with the speed and dispersal of terror. High above them you can see a slaty grey speck that circles lower, inexorably, effortlessly. The pigeons are too high up to seek the refuge of roof or loft, and the scatter-brained birds make no attempt to fly away in a bee-line—perhaps that would be futile, with the falcon's far swifter speed (reckoned at 180 m.p.h. by competent observers!).

Then the Peregrine descends on its victim in a breath-taking stoop, wings held pressed against its sides, diving sheer through the thin, hissing air with incredible velocity. The

murderous talon of its hind toe strikes with the rending force of all that momentum and nicely calculated aim, killing instantly. The sound of the impact as it hits its quarry can be heard two furlongs away, and at times the pigeon's head is severed cleanly, as if cut with a knife.

Rarely does the falcon miss its aim, and when it does it zooms up to the clouds, or climbs on quick-beating wings, and resumes the chase. I have seen Tumblers escape with minor injuries, though. In particular I remember a Tumbler that jinked (yes, Tumblers can jink in the air) from under the claws of doom. The Peregrine clutched sideways at it, and for a split second I thought my bird was lost—then it flew clear, and the falcon unclenched its talons to release a floating shower of long feathers. That pigeon had escaped, like Tam O'Shanter's mare, with the loss of its tail!



Only after seeing the awe-inspiring spectacle of a Peregrine's stoop do you realise how perfectly the bird is made for slaughter. The big head and thick-muscled, heavy breast are suited ideally to aid the headlong impetus of its stoop, the long, curved toes can clutch and grasp killingly when the rending stroke of the hind claw cannot be used, and the long, tapering wings and full tail help in its superlative mastery of the air. Add to these an utterly fearless temperament, fierce skill, and real versatility and you have an idea of the Peregrine's equipment for its life.

Hunting birds that fly comparatively low, like Homers, the Peregrine adopts different methods. It takes Homers when they are circling to gain height or when young birds are flying exuberantly around the loft. It does not make its attack from high up then, but steals in sideways and makes a dash at its quarry from near, like a short-winged hawk. Only, its speed on flapping wings over the brief distance is amazing, and it

by M. KRISHNAN

flies in from a slightly higher level, slanting down diagonally for the strike. The sound of the impact as the Peregrine closes in testifies to the velocity with which it strikes, even on such raids, but the prey is rarely killed outright. It is killed soon enough, though, with a quick squeeze of the talons. The victims escape with injuries more frequently in such low-level hunting and if it misses the falcon does not, usually, persist in the attack—this is strangely similar to the behaviour of short-winged hawks when they miss, and the hunting is also similar to their methods. Perhaps the ease with which the fugitives find cover, close to the earth, has something to do with the matter.



Of course it is not only pigeons that the Peregrine hunts. It hunts in the air, and can kill practically any bird of its size or a little larger, at times much larger birds. Strong-flying birds that keep at a fair height in the air often fall a prey to it. The Rose-ringed Parakeet is often taken, and, occasionally, the crow. The Peregrine has a partiality for water and the seacoast, and many water birds are among its victims. It is a great wanderer, as its name implies, and has a world-wide range. The Americans call it the Duck Hawk, and even here that name has validity, for the Peregrine comes to us in the cold weather, in the wake of migrating duck. How I wish it would merit the name more literally, and confine itself solely to duck!

Country Notebook

Voice Of Spring

FOR the past week it has rained steadily and drearily each evening and night in Madras. The summer, which stayed with us till last month, is definitely spent now. Spring begins, in these parts, with the middle of summer (about mid-April) and ends with it—all around, the soggy earth, the clammy air, and the trees which have returned to a vegetative phase, bear ample witness to the end of spring. But the voice of spring is still with us. Every morning the turbulent, fervid calls of the koels announce the dawn, and throughout the day, and even late into the night when there is a moon, the birds are to be heard. Two pairs of house-crows are building their nests in trees near my house, and from this fact, and from the constant presence of koels in the neighbourhood, I infer that the vernal urge still lingers here, wet though it is.

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The koel is associated with spring inseparably in every Indian language. No bird has its voice more celebrated in romantic literature. There are other songsters in our country with more musical natures and more melodious throats, many others. I have heard the Shama and the Racket-tailed Drongo in the same patch of forest, sweet, rich, liquid melody poured out in passionate song, and the Drongo's high, clear greetings to the sun. The Magpie Robin, Laughing Thrushes, and the Pied Wagtail, familiar birds all, have exceptional musical gifts and sing freely and charmingly. The skylark's fragile, pure voice comes down on field and fallow land in the countryside, the Fantail Flycatcher sings its tinkling little song in mango groves, and even the homely Bush Chat, sitting atop one's gate, is capable of a wild, welling, joyous melody. How is it that in a land where such birds abound, the koel, musically far less accomplished, has had its voice so celebrated?

The answer lies in the association between koel and spring, and love and spring. Surely it is not musical virtuosity that typifies spring, but a certain restlessness

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ness of body and mind, a fevered burgeoning of the spirit. The cock koel's loud, mellow crescendo of kuil-kuil-kuil-kuil-kuil and the hen's torrent of kokarees and kiks, and the many abrupt, startled calls that follow the passage of both birds from tree-top to tree-top, have that quality of unrest and disquiet that permeates the air in spring. And in the persistence of its calls from dawn till darkness, and during the enervating heat of noon when all other life is silent, the voice of the koel further echoes vernal unrest. No wonder, then, that it has been so unanimously recognized and acclaimed as the voice of spring. However, romantic poetry seems to know the black cock koel only—the barred and mottled hen, with a no less eager voice, is not mentioned in any verse that I know of.

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To my mind, there is a deeper significance in the literary tradition associating koel and spring, though it seems unlikely that the poets who observed the tradition were aware of this significance. The koel, as everyone knows, is not burdened with the consequences of spring, as almost every other bird and animal is. There is no nest to build, no eggs to hatch, no clamouring young to be fed and cared for. The koel foists its eggs upon foster parents, house-crows being the usual victims. The male koel induces the nesting crows to chase it, and while they are engaged in pursuit, the hen lays its eggs in the crows' nest, leaving their hatching and the care of the progeny to the foster parents. This being so, it seems to me that no other bird is better suited to typify spring, the season of love and desire. For a love unburdened with domestic cares at the end must be the freest and most spontaneous love, and in the koel's springtime we find this rare freedom.

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Country Notebook

RAILROAD MONKEYS

by M. KRISHNAN

INSIDE the compartment it was crowded and close, and outside too the afternoon was muggy. I bought a "sweet-lime" at Jalarpet Junction to assuage thirst and lassitude, and balanced it speculatively on my bent knee. Would it be bitter, would it be weak and watery, or would it be sharply satisfying? A hairy grey arm slid over my shoulder, lifted the fruit off my knee, and disappeared, all in one slick, unerring movement.

I jumped out of the compartment, and there perched on the roof of the carriage, was the new owner of the sweet-lime, a trim, pink-and-grey she-monkey, eating it. My gestured threats had no effect on her, squatting securely out of reach, and she ate on unconcernedly. She jerked the rind free of the top of the fruit with her teeth and detached it in pieces, and having exposed the pulp, bit into it daintily, eating it in small mouthfuls, removing the white, pith-like core with her fingers and spitting out the pips.

I should have felt annoyed, I suppose, but it was the first time I had seen a macaque eat a sweet-lime and I was interested. Years ago an American lady had lectured me on the right and only way to eat an orange; how one should take the bitter rind with the pulp as nature had intended a citrus fruit to be eaten. I had never been able to eat any citrus fruit that way, and I felt gratified to note that this macaque ate the fruit just as I do, rejecting rind, pith and pips with care.

A big, thick-muscled dog-monkey came stalking along the carriage tops, and my she-monkey leaped lightly on to the galvanised iron roof of the platform and from there to the security of the slender upper branches of a neem where the dog-monkey would find it hard to follow, the half-eaten fruit clutched securely in one hand. She did not stuff it into her mouth, to be stowed away in her cheek-pouch till danger had passed, as macaques are apt to do—apparently the acrid rind was as distasteful to this daughter of nature as it is to me!

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There are many suburban stations along South Indian railways that hold their colonies of Bonnet monkeys. I could name a dozen such places off-hand, and these have sustained their individual macaque colonies from ever since I can remember. This partiality of macaques to railroad stations is not peculiar to the south—in North India, the Rhesus takes the place of the Bonnet monkey along railways. Both are macaques, and look and behave very similarly, the flat, tousled crown of hair and longer tail distinguishing the Bonnet monkey from his northern cousin. The Langurs, no less sacred and therefore equally suffered by men, are rarely colonists at railway stations, though they will settle down in the neighbourhood of suburban shrines.

At these railroad colonies you can see every stage in the evolution of macaque society; the infants at their mothers' stomachs, the big dog-monkeys living as largely by plundering their fellows as by their own pickings, the carmine-faced lepers,



the shrinking elders well past their prime. I have noticed that such colonies contain many more individuals than do troops of feral macaques, and I believe these railroad settlements are usually built up of several troops which have discovered that slick hands can come by more things on a congested platform than in the jungles.

There is no recognised leader among them, as there is in a feral troop, and I have often felt amused at the behaviour of two equally powerful, dominant dog-monkeys when their paths happen to cross. Each ignores the other studiously then, and affects some urgent preoccupation, preferring to live and let live rather than fight for mastery. Democracy is an institution that requires one to be unmindful of his individuality at times.

Strangely enough, though naturalists have studied macaques in the jungles, where they are nomadic, there does not appear to be any detailed record of these railroad settlements, semi-parasitic on passing humanity. A study of such a colony would, I feel, amply repay the effort, and perhaps some day an observant stationmaster will give us an authentic account of the social behaviour and habits of these settled macaques.

BULBULS' NEST

M. Krishnan's
COUNTRY
NOTEBOOK

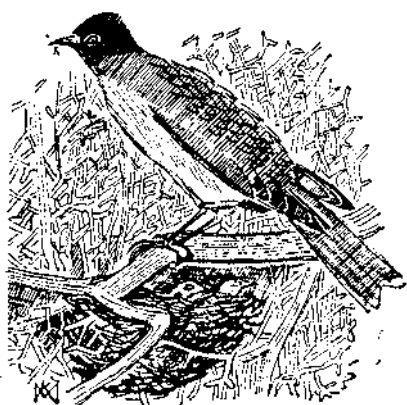
AN eight-foot high Kalli hedge limits the eastern boundary of my compound, and serves to keep the goats and cattle out. No beast can force its way through without getting spattered all over with the thick, white, corroding milk from the fragile phyllodes, that burns and irritates the skin, but birds with their insignificant weight and covering of feathers have no fear of the Euphorbia. My neighbour's hens sit under the Kalli hedge all day and scratch in its shade, dozens of sparrows roost in it each night, and some time ago a pair of Red-vented Bulbuls built their nest in it, in a green fork level with my head.

Bulbuls are not specially talented architects. Some of them nest in tree-tops at safe elevations, and some are careless even with regard to height. The Red-vented Bulbul is content with any site it can find, and usually nests in bushes and hedges, not far from the ground. The nest in my Kalli hedge is typical of the bird—a few thin twigs and stringy roots twined together in a shallow tea-cup lined with fibres and grass. The nest is placed within the hedge, with a branch of the Kalli overhanging it, but otherwise there is no attempt at concealment. An unremarkable nest, and now deserted and broken by the wind and rain, but it has a story to tell.



I first noticed this nest early in August, when there were four little speckled eggs in it, and by the last week of the month there were three naked, squirming squabs in it—the fourth egg disappeared, cleanly and without trace. From the easy chair on my verandah I could see the bulbuls coming in with food for their young. Every few minutes, the intervals depending on the quickness with which they could catch an insect, one or the other parent would come flying in, perch on the overhanging bough, dive under to the nest, and emerge a moment later with nothing in its beak. The weather seemed to be a decisive factor in food supply. High winds and heavy showers are frequent in August and during spells of rain I noticed that the bulbuls kept to the nest. Obviously it was futile to seek prey then, and one of the birds would stay with the young in the nest, sheltering them with fluffed plumage and slightly spread wings.

When I saw the nest it struck me that it was hardly the time of year for perpetuating the species. Mid-monsoon months, with tearing winds and downpours in the offing, is no time to rear young, especially in a nest placed in a Kalli hedge. But I

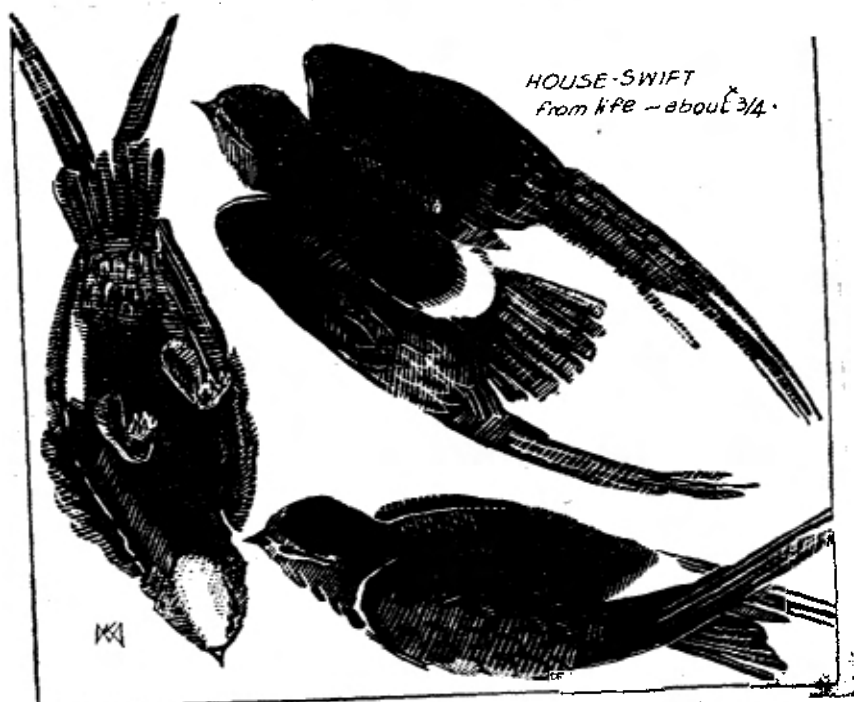


revised my opinion when, with each visit to the nest, I could see the young growing apace and gaining in size. They seemed to have a native hardiness that I had not allowed for, and the nest did give them a measure of insulation. Their bodies were now covered with dark, incipient plumage, though their eyes were still closed, and on sensing my approach they would open their disproportionately large mouths to the extent of their gape, squirm about and clamour for food. This violent reaction to any approach to the nest is instinctive, and I suppose it gets the young an adequate supply of food, since normally only the parents with food come to the nest. But I wonder if this does not serve, in some measure, a protective function as well. The sight of a nestful of agitated fledglings with enormous, gaping, raw, red mouths might well have a discouraging effect on a prospective predator,



Some days ago the weather took on a cold edge all of a sudden, and that night there was torrential rain, followed by a stiff wind. Next morning I noticed that the bulbuls were no longer visiting their nest with food, and when I went to it the three fledglings were lying stretched in it, cold, stiff and unresponsive. By evening some bodysnatcher had removed them.

Only the bedraggled nest remains now to bear witness to this unhappy story. The nesting pair have left the hedge and might well be one of the dozen pairs of bulbuls around my house that enliven each day with their rattling, buoyant, cheering calls. Later on, no doubt, they will rear another brood, in the milder and more even weather of November. It is not strength or wisdom or courage that survives, but persistent domesticity, and these bulbuls, that breed through the year, will live for ever, assuredly.



HOUSE-SWIFT
from life - about 3/4.

Marathon Flyers

ALL day long, over town and countryside, House-Swifts scour the heavens on tireless wings, hawking their aerial prey. No other common bird is so constantly in flight, for these swifts are out with the peep of day and nothing short of a thunderstorm drives them home before dark. Kites are a feature of Indian skies, and in places vultures circle and soar for hours on end, but all of them come down to earth or tree-top some time, and their airborne flight on still wings has a passive, mechanical quality—only the swifts whirl round in mounting spirals or cruise along on flickering wing-tips, without any rest till nightfall. All the four toes of their feet are turned forward, and cannot be reversed, so that they cannot sit in bushes or hop along the ground like other birds. But then House-Swifts do not hop about or descend to earth—they are in the air all day, and when light fails they fly straight to their roosting shelters, to crevices in old mortar or stone, or to their communal nests built of feathers and straw and fibres cemented together with their saliva.

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Once I had a closer look at these birds than one has usually. A pair of House-Swifts were roosting every evening in a deep fissure in the plaster of my verandah roof—they were not nesting then, but only using the crevice to sleep in. One night I climbed a ladder and hooked them out of their cosy retreat with my forefinger and took them into my bedroom. The way they hung on to my fingertips, their clasping, curved, pin-pointed toes pinching and digging into the skin, was a painful revelation of the clinging powers of their feet.

Often enough I had watched them come in to roost, flying right on to the mouth of the shelter and clinging for a moment to its lip before creeping in, and no doubt tight-grasping toes are essential to them, but I had not thought that such tiny birds (no larger than sparrows, and slimmer) could hold on so powerfully. I put them down on the white counterpane of my bed, where they were as helpless as beetles on their backs, and sketched them by

the glare of a 60 c.p. lamp. For a while they struggled to gain wing, but their sharp nails got entangled in the weave of the fabric and they could not even creep along. When turned on their backs they lay quite still, and seemed to go to sleep, for they closed their eyes.

In the hand these swifts felt very unlike what one might suppose they would feel like. They were, of course, astonishingly light, as all small birds in the hand are, but they seemed to be made up of iron-hard muscle and fluffy down, with hardly any soft flesh except at the wide gullet. The pile of down was thick around the throat, and above and below the root of the tail, in the tail-coverts, but elsewhere the feathers lay close, especially over the wings. I noticed that in spite of the fact that these swifts cannot preen themselves frequently as other birds do, being so much in the air, their plumage seemed well-oiled and sleek. I noticed, also, that they were free from external parasites, to which swifts are singularly prone because their aerial habit precludes dust baths and attention to toilet. All the same I gave them a dusting of a patent insecticide (which I use for my pigeons) before I put them back in their crevice.

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Late in the evening, just before roosting, House-Swifts will band together, and go whirling up into the sky in a close, shrill, hilarious kit. This "balling" of swifts is a thing that everyone who has watched them, from Gilbert White onwards, has commented upon, but no one has explained it. Can it not be just a liking for company before parting for the night that moves these swifts? They are highly sociable birds, and one sees them in pairs and kits always; they often roost together, and they have communal nests. I think it reasonable to suppose that it is a social instinct that draws them together at the end of the day, and since they cannot sit in company, they go whirling up in a compact, wittering group. Even otherwise a view should not society have an exhilarating effect and induce strange antics among the lower orders of creation as well?

King of the hedgerows

M. KRISHNAN'S
Country
Notebook

YESTERDAY, coming home in the evening, I saw a mongoose in a field by the road and he saw me, for he raised his head, stared briefly at me, and disappeared into the thick thorn hedge that fenced the plot. I hid behind a roadside tamarind and peered through its forked bole, taking good care to keep as wooden as the tree itself. Nothing rewarded my prompt immobility at first, but after a minute or two a sharp, grey head looked out of the thorn fence, some ten yards from where the mongoose had gone in, and then he slid out of cover.

He was a big, full-grown mongoose, grey and thick and strong-looking,

grown out of the pretty slimness of youth. For a while he kept running alongside the fence and doubling in his tracks, as if he were looking for some little thing he had dropped in the grass. Then he came ambling into the middle of the field, where I could see him plainly, stopping every now and again to sit up on his haunches, or scratch in the earth, and once to make a quick, sideways snap and crunch at some small prey, probably a grasshopper. Obviously he was not hunting anything in particular, but just mooching around. Mongooses have a purposive air when they go hunting, in pairs at times, and they keep a sharp lookout then and quarter the ground systematically.

showed myself he was off, in a long, undulating, grey streak, that fled to the fence and vanished into it.

Outside the pages of story-books mongooses do not live on a diet of poisonous snakes. Beetles, grubs, grasshoppers, eggs (they can climb when they like), lizards, snakes, birds, small mammals—nothing they can catch and conquer comes amiss to them. They have been known to eat from a tiger's kill, and once I saw a mongoose among the creatures gathered at an ant-hill when the termites swarmed. It was comic, the way he jumped into the rustling air and snapped at the winged prey, and the way the other termite-eaters kept a safe distance from him even in the excitement of the orgy. I suspect that mongooses in the scrub eat a variety of fruit and seeds—especially the dark, twinkling berries of the Lantana.

I have nothing to say on the mongoose-versus-cobra topic, and confess that I have never seen the contest except when it was staged by snake charmers. But recently I came across something in a book, concerning this, that surprised me. No doubt you have seen the mongoose-cobra motif as executed by taxidermists, the snake with three coils wound securely round its adversary's body, and its hood spread right above the mongoose's open, toothful mouth and scarlet-beady eyes. And no doubt you have wondered, as I have done, if a slight relaxation from the rigid, formal symmetry of the composition would not make it seem less impossible and unreal.

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Well, in this book, full of thrilling reproductions from real wild life photographs, there is also a picture of this stuffed, unreal piece, set in an aloe-fringed ground, and illustrating a battle to the death between the celebrated Indian slayer of the cobra, and the no less known Indian cobra. I do not recall if the caption says that both combatants died eventually, (which would be strictly true!) but this picture proves that it is not enough to be careful in one's observation of the mongoose, or any other wild creature. One has to be honest as well.

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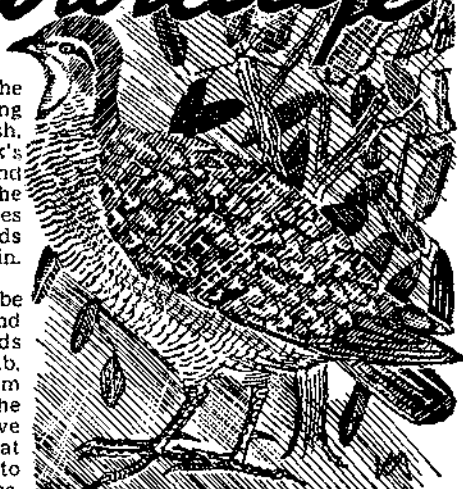
He came nearer and nearer my tree, and finally dived into an ant-hill with many mouths, through an opening that seemed hardly wide enough to take his head—much of a mongoose's thickness is only harsh hair, and few creatures are so adept at squeezing through crevices. He was out again almost immediately, through the same opening. Apparently he had found space to turn in beneath the mound, and for a while he stayed with his head and forefeet out of the ant-hill and the rest of him within. Coming upon him just then, one might have supposed that he was emerging from his earth, and that the ant-hill was his earth—which goes to show how cautious one has to be in surmising from one's observation of animals, and how little we know about the domestic arrangements of the mongoose. For all that I know, that ant-hill might have been that mongoose's earth; I have known other mongooses use ant-hills as retiring rooms, but that, of course, proves nothing. Give a mongoose a dark burrow or hole anywhere, and sure enough he will investigate it.

I had felt things that I hoped were not ants, creeping down my neck, and now a nip in the small of my back confirmed my worst fears. One cannot be part of the trunk of a tamarind for long without the ants knowing about it. I whistled shrilly, twice, and the mongoose froze at once and looked about him cautiously, but when I



Country Notebook

Grey Partridge



THE millet stands nine feet in the fields, and the heads are ripening in the sun. The scrub has a fresh, newly-washed look after last week's downpours, the skies are clear and the air crisp. Each morning the brave, resounding calls of partridges answer one another in the fields around, and at sunset they call again. November is here.

Another month, and the crop will be razed to the ground and the corn and culms harvested. The dried up fields will merge into the outlying scrub, and one will see partridges in them every day, picking the grain in the stubble. Watching them then I have seen a minor miracle happen at times, a partridge vanishing into thin air right in front of my eyes. The brown earth and the sun-bleached stubble provide these birds with an ideal stage for the disappearing trick, for their colouring blends perfectly with this background, and they have only to put a few cut culms between themselves and the watcher to lose all outline and definition.

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There was a time when I used to wonder why a bird with amber and buff plumage, pale mottlings on the back and pencilled black bars across the breast, brown pinions and red legs, should be called the Grey Partridge. I know the reason now. The "grey," of course, does not specify colour, but denotes the indistinct, broken-toned appearance of the bird—a certain lack of sharp, entire shape. The typical scrub of the countryside is also grey, especially in summer, for it has a streaky, non-descript character. No large mass of colour dominates it, and it is broken up with ridges and depressions, stones and burrows, wiry much-branched shrubs and thorn and desiccated grasses, and an occasional patch of sand or rock or some succulent xerophyte. And the authentic spirit of this scrub is the Grey Partridge, skulking along in the undergrowth, running over broken ground in a brown blur, greeting the light and bidding it farewell with loud, challenging calls. To my mind the bird typifies the roving, chancy life of the scrub as no other creature does, and is part and parcel of it.

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As everyone knows, partridges take reluctantly to wing when danger threatens, preferring their sturdy legs and the refuge of the bush-covered earth. Even when flushed, their whirring, low flight takes them only to the next bit of cover. But in places where the cover is continuous, it is almost impossible to flush them. There is a long, depressed seam of sand in the scrub here, a miniature river-bed along which no water flows except during torrential rains. On either side of it the bushes grow thick, spiky Carissas, the string-leaved Dodonea viscosa, stringy grasses, and Lantana in its ranker reaches, featuring the growth. This cover holds partridges. I have

vivid recollections of two beats along this sand-stream. The birds kept dodging from one bank of scrub to the other, and neither a terrific din nor flung stones could get them to rise. They seemed to know, only too well, how safe they were in the cover and that flight would expose them.

Not long ago I came across an even better instance of this terrestrial bias of partridges. I was walking across a flat stretch of ploughed land, keeping to the firm, grass-bound boundaries between the fields, when I saw a pair of partridges about fifty yards from me. I walked towards them casually and not too directly, and they walked away from me. It was clear that my ruse would not work, for they had seen me and were, obviously watching my movements. There was no cover anywhere around except for an occasional thorn-bush.

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Wishing to see how soon they would take to wing if I advanced on them, I walked openly and briskly towards them. They broke into a trot and ran ahead of me, keeping the distance between us undiminished. I increased my pace and so did they, trotting ahead in a close brace. For a furlong this absurd position was maintained and at the end of it I stopped dead, restraining an unmanly impulse to pick up a clod and throw it at the cussed birds. They pulled up, separated a few yards, and began to scratch in the earth. After a while I recommenced the chase, and again they trotted demurely ahead, keeping their distance. Finally, I gave up when I noticed that a cultivator was watching me from a distance, and the unreasonable conviction grew in me that he was smiling at me because I reminded him of a housewife herding chicken down a lane—it was a fact that he did smile. Of course if I had broken into a run and waved my arms about, shouting, I could have got those partridges to rise, but that did not seem a fair way of experiment. And perhaps, at the back of my mind, I had the uneasy feeling that such a course would only have moved them to a canter!

M. Krishnan

Rural Cousins

I HAVE just returned to the country from a seacoast city from a heavy, still, moisture-laden atmosphere. Here, too, the horizons are blocked, not by square architecture but by a ring of hills, and here, too, it is close and humid with unfallen rain. But I sense no longer that pent-up feeling in the air that oppressed me in the city. I think it is the sight of open, green fields and hill-slopes that gives me this relief, the eye compensating in some measure for the closeness sensed by the skin. Anyway, this feeling of spaciousness and freedom from circumscription is something very real, and something peculiar to the countryside. It affects not only me, but the creatures that belong here as well, and tones their behaviour. Even the crows are influenced by it.

I know that these birds, both the all black Jungle Crow and the slimmer House Crow, are the same zoologically as the slick, audacious thieves of town and city, but their ways are different here. They are far less dependent on humanity than in urban areas—strangely enough, the few crows that come into the village to pick refuse are usually Jungle Crows, and not grey-necks. They are a hardflying, industrious lot, these countryside crows, and one meets them oftener in cultivation and in the jungles than in human settlements. They forage for their living, instead of scavenging for it, and go about in flocks as a rule, the grey-necks being noticeably more gregarious. They are not shy of men, but neither are they insolently unmindful—they keep their distance. And they find their food.

They are busy all day, hunting for food. Jungle berries, fruit, seeds, insects and other small fry, eggs, nestlings, carrion—few things come amiss to them. I have seen a crow fishing in a puddle, and it was not wholly unsuccessful! They will pull up sprouting millet, seed by seed, but soon tire of this laborious mode of feeding. Nests and young life provide them with substitutes for the household refuse of towns, but of course these involve active hunting. Carrion is an important source of food for these crows. Jungle Crows, especially, devour dead flesh with an almost vulturish rapacity and speed. Motoring to Ootacamund last June, we saw a mass of Jungle Crows in the middle of the road, completely covering the carcass of a newly-dead dog, the victim of some preceding motorist. The birds rose thickly from their feasting just in time to let us pass, and by the time we had gone on twenty yards they had hidden the carcass again with their packed bodies. It was not a pretty sight.

However, these birds can make a pleasing picture also. I know a deep gorge over which the home-going crows of the place fly each evening, on their way to roosting trees miles beyond the circuit of these hills. They fly low crossing the gorge, keeping just above its sides, and then dip down to maintain the same height from the flat land beyond. Hundreds of crows fly past this narrow pass in an almost continuous stream every evening, and the swish of their wings, amplified by the gorge walls, is like the sighing of heavy winds against tree-tops and telegraph wires. Framed sharply within the sides

of the pass and silhouetted against the fading light, the steady, onward flow of grey-necks makes as beautiful a picture as one can hope to see outside a Japanese print.

Rural crows fly long and far, getting to their feeding grounds at dawn and flying home by nightfall, to roosting trees, maybe 20 or 30 miles away. Flying home they keep low and very much together. There is safety in their close formation, and efficiency and economy of movement in the way they paddle past on broad wings. They keep

a sharp lookout on these flights, and on the least suspicion of danger from the earth they rise steeply in the air, well out of range. They follow their leaders, and there is wisdom and strength in their clannish flock, for their elders are canny old birds, and have the experience of decades to guide them.

I believe that crows can see much better in the dark than most other birds. They are on the wing before sunrise, while the light is still uncertain, and fly home through obscure dusk.

On moonlight nights crows are up and about till a very late hour. Being somewhat of a night-bird myself, I have often watched them flitting from tree-top to tree-top in the moonlight, but the light has never been good enough for me to know just what they were doing. Perhaps they were looking for nests—and supper.

M. Krishnan



Frog's Farewell

M. Krishnan's
Country
Notebook

DECEMBER brings in the harvest, and evening skies no longer dramatic with massed clouds, but limpidly beautiful—and the frogs again. Of course the frogs were there long before the month, but they were less vocal then. I hear the chirping of slim-waisted, olive brown tree-frogs now, and meet them unexpectedly in the house at times, perched on the top shelf of the book-case or creeping easily along the walls. And at night the land frogs rejoice in song, from every ditch and drain. The chorus begins abruptly, shortly after nine o'clock, and goes on for hours. Every frog has its peculiar tonal pitch and keeps a time of its own—trying to follow each insistent voice in the pandemonium of quick trebles, persistent baritone, deep quavers, and guttural croaks, you feel confused and almost dizzy.

Each tireless reveller seems to keep repeating a particular phrase. You can almost make out the words after a while. Naturally, the words and the phrases will vary with the mood and mental associations of the listener, but Aristophanes has a rendering that summarizes all frog-song:

"Brekeke-kesh, koash, koash," it is the voice of love.

And it is the voice of a spent love, for the roadside puddles and ditches are squelching with the last of the tadpoles. So far as I know, the breeding season is over, for the local frogs at any rate. Soon after the monsoon, when frog-song dominated the nights, they bred, and then they were silent. Their nocturnal chorus is heard again, but I think no ardent spirit prompts them now. It is the male frogs that are heard after dark, and it is true that their song is, primarily, an expression of love, but what I hear has no sexual significance. It is the farewell of the frogs to the rains, and the firm earth.

Soon the ditches will be dry, and the uneven scrub around will hold puddles no longer. The frogs must leave the solid land over which they have spread during the past five months, and retire to marshes and ponds. They cannot live for long without water, for their thin, porous skins are poor insulation against surface evaporation, and with no water to soak in, they would soon get desiccated and die. Till the monsoon comes once more, and the drains are turned to miniature flood streams, these Dutch nightingales will not assail the darkness with their voices around human dwellings. Perhaps, unconsciously, they are aware of this, and that is what moves them to song. Farewells, in nature, are often emphatic. The last rains of the year are downpours, and the frogs retreating to distant water are loud and long in their good-byes to terra firma.

That may seem a premature and hasty surmise, considering that long after the rains, mottled brown frogs hop about the steps and verandahs, even invading the house when the lights are turned on. But these friendly "frogs" are not frogs at all—they are toads: house-toads, if you prefer to call them that. Toads

have a tough skin that keeps their bodily juices well within, and so they have no fear of dry places. In fact, the majority of toads prefer dry places, except when breeding. The line of demarcation between frogs and toads is not rigid, and at times it is extremely tenuous. I confess that in spite of a misspent youth, when I cut up large numbers of frogs and studied their interiors, I am not always sure of the difference. Broadly speaking, the

difference is this. Frogs have smooth, and often vividly coloured, skins, and sensuous, bulging thighs: they revel in the water and leap over the land. The male frogs are much given to serenading.

The toads, on the other hand, are not fond of the energetic life, and have brown

and sober skins, often warty. Their bearing is quiet and portly, and they go about their loves with reticence. The difference between them and the frogs is the difference between a gentleman and a bouncer. However, there are exceptions on both sides, and it is not always easy to say whether a given specimen is a frog or a toad by observing its conduct. But there is a better way. When in doubt, call the specimen a frog, and you are safe. For I have it, on excellent authority, that "the term frog is acceptable when speaking of the frog and toad group in general!"



COUNTRY NOTEBOOK POSTBAG

CAT V MONGOOSE

WHEN I was very young I eagerly sought the opinion of a patient but perplexed father on various points of natural history that then seemed important to me. At times there were evasive replies, and one vexed question, whether a hippopotamus or a rhinoceros would win in a fair fight, remains unanswered to this day. G.L., Calcutta, raises a somewhat similar issue when he asks if a large, tough cat can kill a mongoose with ease.

I am tempted to follow in my parent's diplomatic footsteps, and reply that much would depend on the age, early training and feeding, and current fitness of each animal; but on second thoughts I see no need for caution. A large, tough cat (var-domestic) cannot kill a full-grown mongoose easily. The Common Grey Mongoose is not a large animal: nearly half of its yard-long adult length is tail, and much of its bulk is harsh hair. A big mongoose weighs about six lbs. But neither is the common or garden cat a large animal. A big specimen weighs about 8-10 lbs. no more. The cat would get severely bitten before it could overpower its lighter but equally agile and hard biting opponent. Perhaps even fatally bitten.

G.L.'s doubts over the prowess of mongooses is due to the ease with which his dog killed a sub-adult mongoose with one bite through the back. He is surprised that an animal, reputed to be so formidable with snakes, should have succumbed so tamely. I do not think the incident proves that mongooses die easy, or enjoy a false reputation. It only shows that G.L.'s dog (no description given but I should be surprised if it weighs under 30 lbs. or is of the Cocker sort) has a quick, powerful bite. I have had more than my fair share of dog bites, but think that we are apt to underrate canine jaw power because dogs, snapping at men, bite half-heartedly as a rule. Moreover, I think every allowance should be made for the fact that that mongoose was sub-adult. As with all hairy creatures, a half-grown mongoose looks three-quarters-grown because its hair is as long as that of an adult.

Other instances of a dog killing a mongoose are on record. The wild life photographer, Cherry Kearton, lost a pet mongoose to a dog, and went in for a pet that could hold its own against most dogs, a Serval cat. Years ago a dog killed a mongoose (also a pet, and juvenile) in the barracks at Fort St. George, Madras, with more dramatic consequences. The owner of the mongoose shot the dog's owner dead.

P.C., Calcutta, reports a curious bit of bird behaviour. His attention was drawn, by his dog barking at

it, to a hawk that had come into the front hall of his ground floor flat. The bird toppled over and seemed on the point of death "the head hung loosely and the body was limp." He took it outside and placed it on the lawn, when it got to its feet, and with a warning, hissing sound flew 200 feet into a large tree, and was seen no more. P.C. asks, "Is there any explanation for its strange behaviour?"

Two explanations occur to me, but what occurs to me, more readily, is that it is a pity P.C. did not come upon his hawk sooner, and note its condition on entry. That would have given us a valuable clue. I think it quite likely that alarmed by a large dog barking at it, and unfamiliar surroundings, the hawk flew about frantically and knocked itself silly against a wall or some piece of furniture. That would account for its subsequent behaviour. Birds unfamiliar with indoor conditions get flurried when they find themselves in a room, and seem blind to obvious exits at times. I have seen a House-Swift (in spite of the name!) ignore an open window and fly into walls, coming down to the floor repeatedly, when released in a room in daylight. Why did that hawk come in at all? I do not know, but the most unlikely birds do come into the house occasionally.

An explanation that may seem less likely, at first, is that the hawk felt faint, and following the impulse of a bird losing its controls, came down to earth and crept to the nearest cover. Other animals, in an enfeebled state, have been known to enter houses. Fainting is due to organic causes, of course, but I believe that sudden fright can induce a swoon in some beasts and birds as readily as in men.

Miss L.V.M., Ranchi, wants to know if a Kalli hedge will keep out cattle, and how it should be raised.

The Kalli (*Euphorbia tirucalli*, the Milk Hedge), is a xerophyte common in the South, and no animal will eat it because its much branched phyllodes are full of a caustic latex. It is raised from cuttings, and makes a cattle-proof hedge when planted a foot apart.

[Inquiries from readers on natural history subjects are welcome.]

M. K. KRISHNAN



JACKALS AT PLAY

IT is generally thought, in scientific circles, that playfulness is characteristic of the juvenile stage of animal life, when it serves not only as an outlet for overflowing spirits, but also to equip the young with the skills essential to adulthood. Of course it is known that some adult creatures also indulge in play, but scientific writers are apt to pass over such things quickly, as if it is not good



form to comment on the lapses of grown-up life. Please note that I specify writers with a theoretical bias—naturalists with a less academic background have set down what they have seen, and sometimes what they have heard of, with no restraint.

Even so, looking back upon more than twenty years of avid reading of every book and magazine article on animals I could lay hands on, I can recall only a few passages about the play of grown-up animals. On the contrary, the literature on juvenile play is considerable, and that wise and charming classic "The Childhood of Animals," by Chalmers Mitchell, features this aspect of animal behaviour.

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Squatting on a culvert one night, in the dense shade of an aged tamarind, I wished these men of science had been there with me. And I wished that a certain pedagogue, who had explained to me the play method of teaching children now so much in vogue, had also been there.

Below the culvert was a drain

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and beyond it bush-fringed acres of harvested groundnut, bare to the brilliant moon. Two jackals were playing in the field, crouching, running, leaping, twisting and turning without pause, with no aim or object beyond the obvious enjoyment of the pastime. It was cold, and I had no coat. It was late, and the cosy comforts of my house were near-by. I had watched jackals in a frolicsome mood many times before, by daylight and at night, but never had I seen any play so intense and self-centred, so almost infectious in its élan, as the play of these moon-struck beasts; and I sat on, still and huddled.

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They chased each other in giddy circles, then shot off to different corners of the field and disappeared into the bushes, to come prancing back to the middle of the plot and recommence the game. With open mouths and lolling tongues they whirled and frisked about, and I could hear the sharp intakes of breath, but not their footfall. It was like watching some fantastic shadow-play, the shadows distinct and deep, with silver highlights, when they came near, and suddenly blurred when they went out of focus to the far end of the field: their movements objectless as the flurry of leaves in a breeze, but voluntary and conforming to some zestful pattern of joy, unfamiliar to me.

Presently the jackals separated and lay down apart, panting. After a while one of them got up and trotted over to the other, and when quite close darted several lengths backwards abruptly. This move, an invitation to resume the game apparently, was repeated three or four times, and when it failed to elicit any response the jackal gave it up, and began to play by itself. It was with difficulty that I contained my laughter as the mad thing spun round and round, twisting about in the air so much that it seemed likely it would tumble clean over, utterly absorbed in its solo performance. All at once the other jackal sat up, lifted a lean snout, and let out a series of staccato yelps. The lone reveller froze in its tracks and turned towards the sound. It walked across to its companion in a tentative way, with a halt after every few stiff-legged steps, and then they wheeled around together and trotted away in a close couple, as if they had just remembered an important engagement.

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There was nothing educative about the play of those jackals, no instinctive, play-way equipment for the stern needs of life. Nor was it a courtship display that I had witnessed. It was play: aimless, adult enjoyment of good health and spirits. I do not suggest that the games of young creatures do not serve to shape their adult efficiency, but even grown-up animals play, just for the fun of it. All

their waking hours are not occupied with the business of getting enough to eat and avoiding being eaten. They have "time to stand and stare" (they do not spend hours in regret and apprehension), time to feel bored, time for a little fun and frolic when the mood takes them. Naturally, this mood rarely touches captive animals, whose behaviour we have studied and know best. The jackal is not alone in its penchant for play, but we see other wild animals far less commonly and so know little about their games and pastimes.

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But, perhaps, the jackal is more given to playfulness when grown than many other creatures. Apparently, it gets a kick out of being chased and chasing. Pairs will go scampering across the hillsides in an amazing display of light-footed agility, taking on the rôle of fugitive by turns; and anyone who has done a lot of motoring over country roads must have come across a jackal that chose to run on ahead, instead of getting out of the way. It is not the blinding glare of the headlights, behind it, that make it act in that way, and I do not think it is fear—it is a playful whim, and a touch of devil.

Where they are sure of their ground, jackals will, occasionally, have a game of catch-me-if-you-can with the local dogs in the dusk: I have seen one repeatedly baiting a reluctant dog to chase it, coming up to within five yards of its heavy-limbed cousin each time. I have even heard stories of canny old jacks that love to lead the hounds on a wild-goose chase—but these are based, possibly, on an uneasy conscience!

THE SCRUB'S NEW YEAR

ONE afternoon in the last few days of 1949 I was explaining to a Belgian, unfamiliar with the country, how all over India the New Year did not synchronise with the Western calendar, but was more naturally associated with spring. I was careful to add that 'Sankaranthi' and other mid-January celebrations, so important to an agricultural nation, marked, not the new year, but the conclusion of the harvest. The trees on the hillside where we stood were in thick leaf, and the millet fields below newly reaped. I pointed to them to make my meaning clear, and remarked that the jungle now in a vegetative phase, would bloom in April to welcome our new year. The Belgian nodded his comprehension, and with an equally economical gesture indicated the scrubland spread out at our feet. "Spring there?", he asked me.



He was right. Spring was about to arrive there. The herbs and shrubs of open land, with their shallower reserves of water and root systems, do not wait till summer to celebrate their spring. The scrub is in bloom now and at its best, in January. The grass is past the vivid green of eager, rain-fed growth and its tall scapes are coming up. Rhizomes and tubers and bulbs which grew succulent leaves above ground during the rains, are sending up flowering shoots. Even the shrubs, washed clean by the monsoons and green with new leaves, are no longer thin and sharp, and many of them are in flower already. And in rocky, dry places the xerophytes,

Another Page From M. Krishnan's Country Notebook

turgid with sap, wear an opulent look.

If you want to know the plants of the scrubland, this is the time, for the way to know any plant is to get acquainted with its flowers. However, you must look for their bloom; unlike the forest, the scrub does not bloom with theatrical emphasis, with a blaze of massed colour and a spread of scents. Its flowers are small and inconspicuous, as a rule, but you will find beauty enough here if you seek it now. I will not attempt any description of its flora except to mention the commonest plants, for nothing can be more tiresome than a crowded list of Latin names, or give a drearier impression of a land of rich character. Moreover, no one who knows the variety and profusion of the Indian scrub will attempt its ecology in a brief note.

It is among the herbaceous plants and twiners that you will find the loveliest scrub flowers. Where it is cool and not too dry, the *Tradescantia* spreads its carpet of tender green blades and bluish-violet flowers. In the drier reaches you will find other carpets, no less lovely—a purplish green, minute-leaved plant growing in a velvety patch, studded with tiny red flowers, and the carpet of procumbent grasses and *Justicias*. *Ruellias* also grow in patches, and carry pretty flowers, but they are too woody to form carpets. *Ipomeas* creep along the ground, or display their showy, bell-shaped flowers on pliant stems draped about the woody shrubs, and the *Thunbergia* and *Clitoris* also festoon the shrubs with their beautiful blue flowers. The *Abrus* is another climber that is decorative, with its split-pod display of black-eyed coral seeds; and in places where the scrub merges into hillside jungles you may get the pleasantest of surprises meeting the gorgeous red, superlatively-named scendent lily, *Gloriosa superba*.



Naturally, water supply, soil and climate all influence the flora of the scrub profoundly. Alongside river beds the larger, tree-like shrubs are common. Oleander, the rank, sweet-scented *Hiptage madablota*, fragrant screw-pines and *Bauhinias* grow along the banks, and other large shrubs with showy flowers. This riparian scrub jungle varies much with locality and holds many true trees. The drier area, scrub proper, has its perfumes and colours, too. The henna (*Lawsonia*) and the wild jasmine are found here infrequently, and are worth the finding. The wild indigo (*Tephrosia*) and yellow-flowered, minor *Cassias* grow here, and the modest *Cephalandra* with white flowers and crimson fruits setting off its shapely, dark green leaves, climbs among the thorn. It is this tough, spiky scrub that I love—this is where I feel at home, with the thorn-clad *Carissa* and *Caparis*, coarse grasses, and wiry, woody, short shrubs like the *Dodonea*. The *Dodonea* has uninteresting, greenish flowers—but see it by moonlight, the bush gleaming and glistening with its leaves, and you will get to like it.

It is not by oversight that I have left the *lantana* out of the picture so far. This handsome shrub deserves special mention. Never, in the long and turbulent history of this ancient country has invader or conqueror, flood or famine, overpowered the land with the ubiquitous speed of the *lantana's* conquest. Originally brought from South America to Ceylon as a curiosity, the *lantana* annexed India overnight, and is now firmly established here as one of the commonest and most typical plants of the scrub, wasteland, and forest undergrowth. The secret of its success lies in the clubbed heads of abundant, dark,

twinkling berries that it bears through the year. These have an irresistible appeal to birds and beasts, and so the *lantana* is broadcast over the land. I have wanted, for years, to find some excuse for the *lantana* (not that it needs my championship) and at last I have discovered something in its favour that should appeal to men. *Lantana* leaf has been used as green manure for paddy in Mysore with success, and I hope other States will be equally successful in this use. I cannot imagine the scrubland without *lantana*.

BIRDS FROM A FAIRY-TALE

A DOZEN coconut trees stand around the house I live in now, and to them come creatures that like straight twigless boles. Bloodsuckers climb them in clumsy-legged corkscrews, squirrels race up and down the columnar trunks, and there is a squat, mottled gecko that is very much at home here.

Naturally, few birds ever come to the palms, except to perch on the great leaves, but recently a pair of Golden-backed Woodpeckers have taken to visiting their trunks. They do not stay for long on any tree, but fly from one coconut to another, settling squarely on the vertical boles as casually as other birds hop on to boughs. I find these woodpeckers fascinating. They look so ornate and outlandish, like birds out of a fairy-tale; and as they run easily up the sheer surface, or slip down it, with no change in their rigidly held pose but for quick, sideways transpositions, they do not look like birds at all. Their movements have that quality of change of place, without obvious, free use of limbs, that suggests clockwork. But whoever heard of clockwork birds that also call to each other in long, harsh, chattering laughs, and have the plumage and mannerisms of the creatures of the fantastic brothers Grimm!

Actually, these woodpeckers represent no exotic, romantic survivals,



but only extreme adaptation to a way of life. Their chisel-tipped beaks sound bark and crevice for grubs and wood-boring insects most efficiently, and their stiff tail feathers serve as props in their precarious stance. At first it may seem strange that things as flimsy as feathers should bear body weight, but the weight of these woodpeckers (like the weight of most birds) is surprisingly little, and the tail feathers only help, in an adventitious manner, as a third leg. Woodpeckers are so used to vertical surfaces that movement along them is normal and easy for them—they have even been observed asleep, stuck on to a tree trunk.

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THE woodpecker clan is much given to contrasty colour, but no other member of this specialist family has the barbarous splendour of plumage of the Golden-back. The gold of its back is deep and glints in the sun, its crest is a pure crimson, and its bib of white-dotted black and dark wings set off these rich tones emphatically. And its broad-winged, dip-and-rise flight, direct from tree to tree, is not what one would expect from a bird of its size, almost a foot long.

Twenty-five years ago, when I was a schoolboy in these parts, there were many spacious, rambling gardens here and tall trees, and Golden-backed Woodpeckers were common in them. Those gardens are built up now and the woodpeckers are gone. Highly specialized birds need much scope for their limited ways of life, and the Golden-back is, perhaps, the most specialized among the woodpeckers. The pair that visits my compound now represents the last of these birds here, so far as I know. There is nothing surprising in this. With the disappearance of broad belts of trees from an area, birds that need extensive sylvan feeding-grounds can no longer find a living in the place. No doubt the woodpeckers said to themselves "Tomorrow to fresh woods and pastures new," and flew away on broad, undulating wings.

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BUT did they find them? There are plenty of wooded tracts within a few miles of this place, but with resident birds like woodpeckers that get used to a particular locality one cannot say that a change of environment can do no harm. They do not take kindly to such changes, and ousted from familiar grounds, especially suited to their extremely specialized way of life, they may not even survive the change. A woodpecker of another country, the Ivory-billed Woodpecker now practically extinct in America, is an example of this rigid adherence to habit and habitat. Surely there is woodland enough not too far from its original homes, but this bird was unable to adapt itself to new territories when driven out of its own, and so perished. I do not suggest that the Golden-backed Woodpecker is threatened with extinction, or is a rare bird today, but I apprehend that it is one of the birds that will suffer by our progressive civilization, and I think that I have been a witness to the passing of these quaint and splendid birds from one of their strongholds.

M. KRISHNAN

FRIENDLY HOBGOBLINS

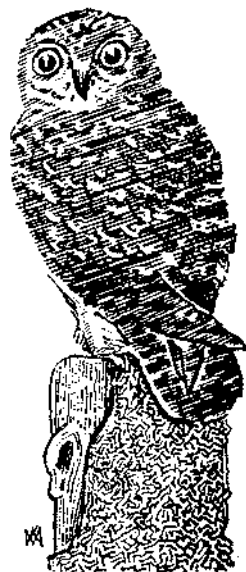
OTHER birds fly away. Or else they go about their business, unmindful of you, or sit passively on, not knowing you are there. But the Spotted Owlet resents your prying into its affairs, and takes pains to let you know that it does. It glares malevolently at you from round unwinking eyes, and bobs its round head up and down, the baleful yellow eyes still upon you, and a torrent of gurgling, voluble swearing pours out at you from its squat, softly-barred form.

All the owls are apt to resent close scrutiny but none so expressively as this owlet, though it is never dangerous as some of the larger members of the tribe can be. The Spotted Owlet's intimidatory display has been called clowning, because it is so small we can afford to feel amused at its impotent anger and bowing, bobbing clock-face. Imagine the bird magnified to the size of its larger cousins, and the demonstration would seem funny no longer; it would serve to scare people then all right.

Everyone knows this little owlet, by far the commonest of our owls and equally at home in town and country. In Madras, mosques and old public buildings, with towers and spires, offer ample hospitality to these birds, and I suppose other cities are not lacking in homes for them. Where there are aged trees, with knots and holes in their trunks, the owlet prefers a nice, dark hole in the wood, sufficiently deep for daytime retreat and siestas. Not that it has the traditional owl's intolerance of light. Spotted Owlets come out at noon sometimes to hunt prey, and it has been rightly said that they are crepuscular because they fear, not the sun, but the mobbing to which other diurnal birds subject them when they show up in daylight.

I have seen these owlets in broad daylight on several occasions, atop exposed perches, and though there were other birds about they took no notice of the owlets. That proves nothing, of course: no doubt other birds do mob them at times. But once I had a striking demonstration of how little the Spotted Owlet minds the glare. I was waiting in a railway retiring room for a belated train on a blazing February day, and just outside the window was an owlet, sitting on a telegraph post right out in the sun. For three-quarters of an hour, from 11-15 a.m. till 12-30 p.m., it sat stolidly on, turning its clock-dial face right over its back to glare at me from time to time, but otherwise static. When I went out to the foot of the post it flew away, but I remember I had to shade my eyes with my hand in spite of my tinted glasses, so intense was the glare.

Owlets clutch at their prey with their comprehensive talons, and catch them that way. Insects form their staple food, hawked in the air or pounced down upon from a lookout post, but they take minor lizards also, and even little birds and mice. I do not know why such a useful bird should be so widely abhorred, but the curse of the owl tribe is upon it, and even today there are quite a number of people encompassing its destruction when it is incautious enough to take up residence near their homes. A decrepit gateway in a mansion I



used to know was a favourite place with these birds, though they were sternly discouraged with a gun. I think quite half-a-dozen owlets were shot by the sentry on guard there during the four months I knew the place, without appreciably affecting its attraction to the local owlets. The man was always careful to make sure that a bird he had shot was finally dead before he would pick it up, and assured me that the clasp of its feet was a thing not lightly forgotten.

I am afraid we do not know our friends. I find the quaint, semicubist looks of the Spotted Owlet charming, and its noiseless flight and bold behaviour interest me. Others may not have my tastes (maybe mine are depraved) but surely a bird so useful about the house and garden, and such an efficient check on obnoxious insects, deserves to be encouraged—and shooting it on sight is no way to encourage any bird.

M. KRISHNAN

COUNTRY NOTEBOOK POSTBAG

A Question Of Locality

I HAVE been contradicted authoritatively over my suggestion that spring comes to the scrubland with the calendar year (January) and not with the official year (April). Mr S. Percy-Lancaster of Calcutta, the well-known horticulturist, asks: "Am I wrong in supposing that these paragraphs refer to plants that flower in spring i.e. January? If so, I fear I must challenge Mr Krishnan; he will never find flowers on *Gloriosa* till June at the earliest as the tuber is dormant till the early hot weather. *Abrus* may have last year's seed pods hanging on to it, *Thunbergia alata* and fragrans will be in bloom, but it is doubtful about *Justicias* and *Ruellias*. The Henna waits for the hot months; so too do *Carissa* and *Capparis*." He thinks I am about a month or six weeks out for spring.

I have always felt a powerful reluctance to enter into arguments with Doctors and Professors and the secretaries of learned societies. Not that I am awed by their status, but such men have the most discouraging and unfortunate habit of being in the right, and their knowledge is ponderous and precise. However, I do not think I was mistaken in my observation—where I went wrong was in not making it clear that I wrote of a particular area, in the heart of the Karnatak, and that my observation was local.

Moreover, I pointed out that "water supply, soil and climate all influence the flora of the scrub profoundly." I feel that Mr Percy-Lancaster has not made sufficient allowance for the wide climatic and soil variations that obtain in this varied country. Another botanist from Bengal, Cunningham, says "in respect to the rainy season; the time of its onset and the amount of water which it brings vary greatly in different areas, so that no description of the climatic events in any particular region can be regarded as applicable to the country at large." I am not seeking to justify careless observation with quotations. I admit straightaway that Mr Percy-Lancaster is right about the *Gloriosa*. The aerial parts die down after fruiting, and sprout again only after the rains.

*

Had Mr P-L challenged me to find the *Gloriosa* in flower in December-January, I think I could have found it, for I have seen this plant in vivid bloom on the Ramgad foothills in the Sandur area late in December, and in the first week of January—but of course what he says is that the plant flowers only after June. The question is, when does it cease to be in flower? This serves to make my point about climatic variations. Maybe the *Gloriosa* flowers in July-August-September in Bengal, as I believe it does in Ooty, but in the Madras area it starts flowering late in October and fruits late in December. I have, naturally,

verified these statements before making them.

I too have seen the Henna (*Lawsonia alba*) in flower in summer, but in the southern scrub it starts flowering before the onset of hot weather. The bush in my garden burst into abundant, fragrant bloom in mid-January. I mentioned the *Carissa* and *Capparis* only to say they were thorny and typical of the drier scrub; that they are all the year round.

Ruellia tuberosa is in flower in Madras—many of the plants are also in fruit in January. *Justicia procumbens* (I did not write in January, of garden varieties) is at its flowering peak and forms lovely patches where it grows together, with its pale violet, tiny flowers against its tiny leaves. Other minute-leaved, herbaceous plants at their flowering peak in December-January that are commonly found in the scrub in patches are *Euphorbia rosea*, and the gorgeous, blue-flowered, creeping *Evolvulus alsinoides*. Beauty is much a question of tastes, but I think the loveliest of them all is *Indigofera enneaphylla*, which forms carpets a yard each way at times, and has dark rose, irregular flowers studding the green of its spread—the flowers turn an indigo blue as they shrivel and fade.

My point was that in January it is spring in the scrub, especially in its herbaceous undergrowth. That may not be true of all India—it cannot be—but generally the less woody of the scrub's flora, and many of the woody ones too, do come into their flowering peak in December-January.

*

From Fr. Rosner, Ranchi, comes a most interesting account of close association between birds of different feather. He found a Nukta (Comb Duck) associating with a pair of Ruddy Shelduck (Brahminis), and when he dropped the Nukta, the pair of Ruddy Shelduck showed no inclination to leave their late comrade, circling around for quite a while. He remarks, quite rightly, that this is an unusual instance of bird behaviour, for while it is known that a Ruddy Shelduck (which pairs for life) will continue to haunt the neighbourhood when its mate is shot, it is strange that this pair should have shown similar attachment to a Nukta, "worlds apart in habits and tastes" Fr. Rosner also remarks on the scarcity of Common Teals and Ruddy Shelduck in his area this year, and wonders if there was similar scarcity in other areas.

It is well-known that in certain birds (particularly, monogamous birds) one of a pair will haunt the scene of its mate's death—the Sarus provides a ready example. However, close association between animals need not have a sexual motive, and associations of different species of birds and beasts have been observed.

Such social and personal relationships, especially individual attachments in unrelated animals, provide a fascinating field of study, of which we know little. There are few genuine reports, from scientific observation, on such associations; though there are a good few romantic stories about them in shikar books and elsewhere! Fr. Rosner's account is especially interesting for this reason, and I shall be grateful for other genuine reports on such partnerships. Of course, only reports based on accurate, personal observation—are of any worth—though the theme is a tempting one.

I am no wildfowler and have little personal knowledge of duck, but hope I am scientist enough to face possible ridicule when there seems to be the possibility, however slight, of known facts not pointing in the obvious direction. Most probably Fr. Rosner's Ruddy Shelduck lingered on waiting for their lost comrade. But I would like to know if Ruddy Shelduck are more reluctant to leave a favourite haunt when disturbed than other duck—the observation of some outstandingly poor marksman who has disturbed them repeatedly with gunfire, without dropping a bird, would be of real value.

M. Krishnan



February Moon

THERE is a saying in Tamil warning all men against these four things, as things especially untrustworthy: "the February moon, the courtyards of those that ignore you, the love of a harlot and the friendship of a trader". The wisdom of old Tamil over the last three is obvious, but one may ask, "Why the February moon?" Because of its deceptive allure.

Never at any other time of year, not even in November, is moonlight so seductively brilliant, so full of luminous soft magic. And never is the change from the sullen heat of day to the dew-laden coolness of night so potent in its unhealthiness than in February, at least, not in the South. I learn traditional wisdom the hard way, and know, from experience, that one can take harm from being out under the February moon. And it seems remarkable that in a very different

I am afraid I have more to ask than to tell on this question. Though given to late hours and nocturnal walks, all that I have noticed can be said in a few sentences. Many night drives along hill-jungle roads have left me with the impression that wild animals are less prone to take man-made tracks on a bright night than when it is dark. This is only an impression, but others with whom I compared notes had it too. Some birds, ordinarily diurnal, are active under a radiant moon: this is a thing about which I can be definite. I have often seen and heard crows, lapwings and cuckoos (not the Koel only, but other cuckoos also) on moonlit nights—less frequently the tree-pie, the cuckoo-shrike, the common partridge and the commoner village hen!

The stone-curlew is a bird of the dark, but is specially vocal on such nights and flies about then, and some water birds are similarly affected. No doubt the activity of these birds is due to visibility being good—birds are much dependent on sight, and one can read print by a bright moon. It is well-known that pigeons cannot fly in the dark, and need clear light. I have tried releasing homers by moonlight, but though tossed within a mile of their loft the results were discouraging: they want daylight.

Not all animals are equally susceptible to the call of the moon. What intrigues me is not so much the identity of all animals that are, as what they do when they are out under a round moon. Naturally, the assiduous prowler by moonlight will see many nocturnal creatures, if he is lucky—hares, field-mice in plenty, jackals, mongooses, jungle-cats, perhaps even a civet or palm-civet—but he sees them on such nights only because visibility is good: they are out every night, but go unseen in the dark. It is difficult to gauge any exuberance in their behaviour that one can attribute, reasonably, to the moon, because beasts are silent as a rule and moreover they are self-conscious and will not stand being watched. But the birds that respond to moonlight are vocal, and they do seem to be in high spirits.

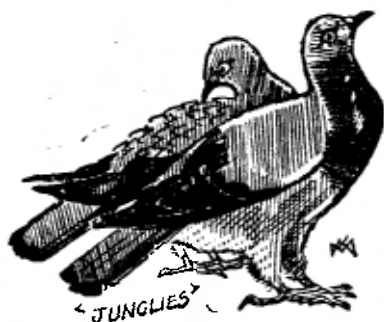
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climate a saying similar in motive and period should obtain: the English "Cast not a clout ere March is out" does not refer to lunar influence, but is similar fundamentally. However, I do not write of men and moonlight. When I think of it, the response of men (and women) to the call of the full moon saddens me: unmindful of the many rich lyric passages in every Indian language linking moonlight with erotic impulse, they lug their dinner to the terrace and consume it there: and this is the only reaction to lunar light I have noticed among my fellows. But are the more natural birds and beasts equally uninfluenced or prudent?

Watching crows and other birds, it is difficult to get over the feeling that it is not the prospect of more food that the extra hours of light bring (food is never unwelcome, of course, if it lies to beak) but just the moonlight that moves them. They fly noisily about from treetop to treetop, never coming down to earth or any obvious business. We know that birds are capable of play, and rejoice in certain settings: can it not be that moonlight stimulates the *joie de vivre* in them?

All this is speculation. I do not know if anyone has done any serious work on animal response to moonlight, but I think I can contribute a suggestion, if not a fact. I believe that in spite of their wonderful equipment for extremes of temperature, crows and other "moonlight" birds are less active under a February moon than in other months. Perhaps it is the heavy, humid atmosphere that damps their wings and spirits.



BLUE MOSQUE-PIGEONS

WHEN I come back to the city from some far countryside, as I seem to be doing quite often these days, I have opportunities for observing the gradual degeneration of the Blue Rock-Pigeon from a thoroughbred to a mongrel. Away from mixed city communities and the lofts of fanciers, the Blue Rock is true to type—in places it is true to name as well, and lives among precipitous rocks.

I know some of these rock colonies, and have reared squabs, taken from dark caves, in my loft. Such birds are proportionately longer (because of longer and less tightly shut tails) than domestic breeds that resemble them (say, the Homer) and stand lower to the ground. Their stance is somewhat crouched, and they run swiftly along the ground unlike domestic pigeons. I think their flight feathers are softer than in racing pigeons—they do not make that laughing noise when they take off quite so audibly. And their flight is distinctive, swift, direct and low in the air—they do not circle much and fly point-to-point. The wing action

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is less smooth than in Homers and more up-and-down, more like a Tumbler's. These are the distinctive features of the authentic Blue Rock that I have noticed over years of occasional observation—and I would still hesitate to name a given bird as a true "jungly" on sight.

For no bird has bred so promiscuously with its own changed offspring as this pigeon. When the Emperor Babar stopped his conquest for a moment to comment upon the differences in looks and voice between the rock-pigeons of his native land and India, he was better placed than I, for they were less interbred here then. All breeds of domestic pigeon have been evolved from the Blue Rock, and if you allow half-a-dozen fancy breeds to mingle freely, their progeny will revert ultimately to the ancestral rock type. In urban areas rock-pigeons colonise mosques and temples, and interbreed with other domestic pigeons to form mongrel colonies.

(Continued from previous col)

type, so that it is not possible to say whether the pigeons of a city colony are genuine "junglies" or atavistic reversions. More than once I have made up my mind to study the pigeon community of a mosque seriously, but have never stayed long enough near it to accomplish anything.

Of course it is not only mosques that hold Blue Rocks and semi-wild pigeons. Any place that offers them nesting sites and security will do for them. The spires of Hindu temples and the parapeted and domed architecture of an older and more decorative age offers them hospitality at times. Often you may find semi-wild pigeons using some dome or spire as a daytime resort regularly, without settling down to breed. With plenty of niches, holes and crevices to provide them with nesting sites, such conduct may seem arbitrary and whimsical, but it is the instinct of self-preservation that keeps the birds from settling there. If you look closely you will find ledges and heavy moulding in the architecture, near these holes, that will serve cats and other predatory beasts with easy promenades.

Wild pigeons are canny birds. A multitude of predators seek them in the air and on their breeding grounds. The fact that they are still

Country Notebook

"Sumer is icumen in"

THE last days of February were unusually warm and dry in Bangalore. Old residents, are hoping that the weather will turn cooler soon, and less uneven, for the rare early summer in Bangalore endures and is warm. In this salubrious climate the hot weather begins about April, and soon after the "mango showers" arrive to tone it down. This year, I am afraid, they are in for a long, hot spell, for I have been hearing the Coppersmiths lately and at the beginning of this month I heard them calling steadily through the noon, announcing to all that summer had opened formally.

*

The Coppersmith may be justly called the voice of summer. Not only in Bangalore, but all over India, this little, vivid barbet grows vocal as the hot weather sets in, and then, till it is cool again, you hear its metallic, monotonous "tonk . . . tonk . . . tonk . . ." right through the fiercest hours of day. Summer has many voices in our country: the koel (though this bird is more typical of mid-summer spring), the Brain-fever Bird, the ardent roller, palm squirrels, even the Coppersmith's larger cousin, the Common Green Barbet, which says "kukur . . . kukur . . . kukur . . ." instead of tonking and says it later into the evening. But none of them, I think, is so sure a sign of summer's onset as the midday voice of the Coppersmith. Of course, any bird may be deceived into a false start by capricious weather, and a succession of summery days may start Coppersmiths calling, but birds are conservative in such matters and their perceptions are sound—when these barbets are calling steadily at noon, a sustained "tonk . . . tonk . . ." that goes on unflinchingly down to the foot of this page, it is a reliable indication, and that is why I am confident that summer has arrived to stay in these parts.

*

The Coppersmith is a gaudy bird, green above and yellowish below, with a crown and bib of true scarlet, crimson feet, a black-bordered yellow patch around each eye, and a thick dark bill. As if to compensate for this exuberance of colouring, it is remarkably squat and economical in build, with no plumes and appendages beyond a bristling moustache. "Coppersmith" describes its voice admirably, but its other name, the Crimson-breasted Barbet, is inadequate. However, the official title, *Xanthocheilus haemacephala*, does justice to its colouring and bloody crown.

Figs of various kinds have an irresistible appeal to this bird, and it is fond of the shady sanctuary of fig

trees. It has been rightly said that in spite of its vivid patches the Coppersmith's colouring is assimilative—in its favourite haunt, the Banyan in red fruit, its plump silhouette is almost invisible against the broad green leaves and bright, rounded fruit. The bird throws its head about while calling, and it is true that because of this habit it is hard to say from which tree it is calling when one is at some distance.



but from near or under its tree it is easy to spot the Coppersmith from its voice.

Like all barbets, the Coppersmith is strictly arboreal. I do not think it ever comes down to drink. Often, in the blistering heat of a Madras April afternoon, I have wondered how it can call so persistently, with not a drop to ease its parched throat. A vendor of dried figs once told me that the fruit was excellent for summer heat and cooling in the extreme—I have the uncharitable feeling that had I met him during the rains, he would have assured me that a diet of figs was the thing for the wet and cold; but perhaps there was truth in what he said.

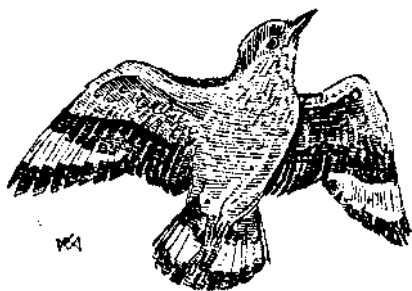
M. KRISHNAN

Country Notebook

MARCH ROLLER

THE March Hare, my dictionary tells me, gets its name for madness from its "gambols during the breeding season". I wonder what the sedate scholarly men who made the book would have said, confronted with the March Roller. Perhaps, for all their words, the sight would have left them speechless.

For the Roller is a sedentary bird at other times, respectable, even gentlemanly in a lazy sort of way. All day long it sits on some exposed perch, drab, squat and inert, indifferent to the blazing sun and the breeze that ruffles its plumage. I have seen a Roller knocked off its balance and



post by a gust of wind, pick itself up in the air and resume its seat in the open, in the most off-hand manner. From time to time it comes out with a deep chortle (not a specially refined sound, but guttural enough to have tonal strength), but nothing breaks its bored, slumped repose otherwise. Even when it sights some passing insect and gives chase, bursting into dazzling blues with the spread of its pinions and tail, there is nothing hurried or undignified about its movements—it flaps lazily along on broad, sapphire and azure wings, like some gigantic butterfly, takes its prey casually from the air, and then flaps its way back to its pole. What is gentlemanliness, after all, but a superiority to crude emotional displays (or its affectation when others are looking)? The Roller has it, even when feeding. Till late in March.

Then, all at once it sheds its reserve, and becomes a thing demented. Love is a powerful influence: even in the highest animals it has been known to induce a sudden, abandoned silliness. In birds, however, whose

emotional lives are not screened by reason or self-consciousness, it often reaches its climax of expression in aerial displays and melody. There is a quickening pattern leading up to a grand finale in their courtship displays, or else an undercurrent of audible, welling fervour.

But the courting Roller goes plain crazy, abandons its perch, and flies about with maniac energy and aimlessness. It scours the heavens, not in soaring circles, not in steep, acrobatic loops, but just anyhow. The broad wings lose their good-natured flapping action, and beat a pathless course for the bird through the air. At times it flies high and wild, when the colours of its flights and tail grow invisible and dark against the sky. So lost are its blues in the distance, so unlike its lubberly self is it on the wing now, that one who has not seen an ardent Roller before could mistake it for some other bird.

And not content with this exhibition of incoherent flight, the Roller sings—all the time it is flying—in an incredibly hoarse voice. At no time has it a pleasant voice, but usually it is discreetly laconic. In March, however, it sings as it flies, and its song is even more pointless than its flight; but fortunately confined to a single note, a long-drawn, grating shout. It climbs into the sky and dives recklessly earthwards, singing its harsh song unceasingly—on a still day you can hear the courting Roller from half-a-mile away, and the increase in volume of the song alone is sufficient to tell you of its headlong descent. There are many unaccomplished musicians among birds, but few with such a raucous or persistent voice. However, it is the voice of love, inspired by the same feeling that prompts the nightingale and the lark.

Luckily, the inspiration passes. Once it mates and nests—the event varies with place and climate, but is from April to July—the Roller settles down to the business of perpetuating the species, a thing that it does with its usual sang-froid, and it has no time for giddy flights and song. Later still you will find it on some pole in the sun, so staid and sober that you would have passed the bird by, but for a deep-throated chuckle.

M. KRISHNAN

"Inheritor Of Unfulfilled Renown"

APRIL is neither girlish nor golden here. Even in the cool blue hills a fecund restiveness is in the air: great forest trees burst into sudden, opulent bloom and the voice of the Koel is heard in our land. I am tempted to end these reminiscent, echoing sentiments in a rank bad pun, and I think I will yield to temptation—spring is here, the main spring of life in India.

But, in spite of an acquaintance with classical poetry, I shall not write of Koels and red Asokas, Jasmines and Champaks (give me the fruits) or balmy breezes (any breeze, bar the loo, would be balmy just now). Instead, I shall tell you of a fascinating little puppy that I saw this morning, with one ear cocked and the other drooping, and not too certain a gait. About this time of the year, I have seen this puppy many times in the past, in distant and different places, in Banaras, in Fatehpur Sikri, in Rameswaram; but never before was it quite so lopeared or wobble-footed or friendly. This little one, like its archetypal predecessors belongs to an earlier spring. I must be careful in what I say, for dogs breed all the year round, but so far as the common dogs of the country are concerned the rush is about December. And so, in April we find these puppies, weaned, and exploring the world on gawky limbs.

★

What sort of dogs will they grow into, and what lies ahead of them? I think I can answer these sweeping questions, having had opportunities for observing canine communities in rural parts. Many of these charming puppies die young: infant mortality is shockingly high among them. Those that reach maturity will be stocky, short-coupled, middle-sized dogs, from 18 to 22 inches at the shoulder and weighing from 30 to 45 lbs. Some of them will find homes and owners and grow into regular house-dogs, others will lead a less tied up life as herd-dogs, and the rest will belong to no one in particular but to some locality, vagrant and semi-parasitic on the human settlement but not nomadic, and roped in occasionally to watch over the groundnut fields at night or for hunting. These, all of them, are the typical "Pariah dogs" of Indian plains (and of some of our hills as well), varying little in type over their wide range.

Everyone knows them, and so I will not describe them, but I would like to say that an all-white dog, or a dog with much white on it, is not a true Pariah—typically, the dogs are brown, from a pale, fawn to a deep burnt umber colour, and a few may be brindled or black, but I suspect the blood of dogs with too much white in their coats. The mongrel communities of towns and cities contain only a percentage of Pariah blood in them. The breed is loosely defined and undeveloped, but herd-dogs in the villages are generally typical specimens.

★

In other countries (in Germany and Australia, for instance), the pastoral dogs have been bred to a high standard of canine perfection. Welsh Corgis, Collies, Alsations, the Australian Kelpie and Cattle-dog, are all breeds evolved from pastoral stock. In India, nothing has been done to improve the likely stock available all over the land, in rural areas. The Pariah dog, by virtue of its square, sensible build and handy size, is admirably suited for utilitarian purposes. It is sagacious, very



even-tempered, and extremely hardy. Only those who do not know it will hold its courage in contempt: I feel that urban mongrels are largely responsible for the lowly reputation of "Pi-dogs". Not that these dogs are highly thought of or cared for in the countryside, but the few that are well fed and looked after develop into strong, hard-muscled dogs. In packs these dogs are capable of great things.

Packs of these dogs are still used to hunt pig, and even leopards, in remote, jungle-clad places. I used to know several pig-hunting Pariah dogs rather well, and can vouch for their pluck—in company. When alone, they are too sapient to rush in where the odds are great, but they make excellent watch-dogs.

★

Not the least of its merits is the fact that the breed can thrive on a cheap, mixed diet, and is indifferent to the heat of the plains (a quality that seems vitally important, and almost heroic, to me just now). Far finer dogs—the southern Poligar and other indigenous hounds—have declined for lack of popular interest. Is it likely that we shall take on the up-hill job of establishing and popularizing the comparatively poor-looking Pariah? At first the Pariah's cause seems a hopeless one, but I advocate it still, because of the all-round virtues and great potentialities of the breed. Moreover, no dog that is so delightfully attractive in its puppyhood can be wholly without a future.

M. Krishnan

Voices Of Intolerance

I am a good neighbour. In this overcrowded city, hemmed in on all sides with the houses of other men, I am impercipient. Especially do I take no note of the uproars that break out around me from time to time—I presume these are signs of life's onward march here, just as the grating sounds from around the corner are tokens of the progress of trams, and I am incurious. But on Friday morning I was awoken by such a varied and sustained din that overcoming my civic sense I rushed to the backyard and looked over the wall.

The hubbub came from a Cassia in the compound of my neighbour to the east. A number of crows and Rose-ringed Parakeets had assembled about the tree, and in its top branches, circling round, settling, and circling again, screeching, screaming, cawing, and demonstrating at something that sat lumped, indistinct and immobile in the heart of the tree. The something was almost completely hidden by foliage and flowers—it looked large, whatever it was, and apparently it knew there was little calm outside the screen of leaves. I took a quick census of the demonstrators, since the object of their attentions was invisible. The crows (mainly grey-necks) kept flying in and out and were too numerous to be counted, but there were about two dozen of them, and there were seventeen parakeets. A surprising number, for although parakeets visit the neighbourhood, they do not roost here, and I had not thought the locality held so many of them.

*

For a few minutes I had to rest content with watching the demonstration, for the cause of it all gave no clue of its identity—I guessed it was a large owl that had strayed into the neighbourhood, incautiously. Then unable to suffer the prying eyes and the many-keyed curses of the birds, it broke cover, climbing down surprisingly to earth, a young three-fourths-grown Bonnet Monkey, with half its tail missing, that raced across my neighbour's compound and streaked up the wall, and from it up the tall coconut tree in the corner of my backyard. Promptly the frenzied crows and parakeets shifted en masse to the coconut, and with a plainer view of their quarry demonstrated against it even more agitatedly.

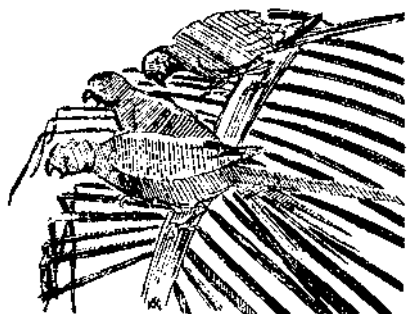
There are no monkeys hereabouts—this one must have been a runaway from some gipsy's troupe. From the coconut to the great wood-apple tree in my compound, from there through a row of coconuts to a mango, and finally to the concrete parapets of my western neighbours, the fugitive took its wretched liberty, never descending to earth again, seeking the cover of foliage from the tormentors—and the birds followed every move in its progress in a vociferous mob. Only when that harassed monkey took to the house-tops, abandoning green sanctuary, and disappeared westwards to where there were no trees, did they stop heckling him. Then all at once the chivving ceased, as suddenly as it had begun some half an hour earlier.

At first all this may seem trifling, and hardly worth the record, but I feel the incident is not without interest to the naturalist. For one thing, this was the first time I had seen parakeets demonstrating at a monkey, or any other creature, for that matter. Dewar, I think, mentions an instance

of Rose-ringed Parakeets panicking at their roost, when a hawk took one of them, but this was something quite different. Though there were many more crows there, the varied voices of the parakeets almost drowned their cawing, and the crows seemed half-hearted in their heckling, by comparison. They just flew in from neighbouring perches to the monkey's tree, and then out again, but each parakeet, before settling, circled the tree on stiff-held wings, with every long graded tail-feather outspread, heaping shrill curses on the unhappy macaque's head: they sat in rows craning over to peer through the leaves at their quarry till their heads seemed disproportionately big on the taut, thin necks, yelling vituperations, almost toppling off their perches in their excitement.

*

I cannot imagine why these birds were so affected by the monkey—in the countryside where they lead an arboral existence together, I have never seen them demonstrating at macaques. Anything out of place excites the birds of a locality, and certainly that monkey was utterly



strange in that setting, but this does not seem to explain the obvious anger of the parakeets. The crows were merely a subsidiary force, drawn to the scene of action by the parakeets—they were, as I said, almost casual in their protests.

*

Another remarkable fact was the complete indifference of other creatures present. I noticed that the numerous squirrels of my compound, and a party of White-headed Babblers there just then, utterly ignored the monkey and its tormentors. Palm-Squirrels and White-headed Babblers are notoriously more given to demonstrating against enemies and intruders than parakeets, but they showed no interest whatever.

Even more remarkable was the apathy of the human population. A gardener's child threw a small stone vaguely in the direction of the monkey, as it leaped from one coconut tree to another overhead, but this was a purely formal gesture, prompted by some dim, atavistic obligation to throw things at fugitive creatures. After performing this rite, the child took no further notice of the monkey, well within his puerile range. No one else seemed even aware of the commotion in tree and air. One of my neighbours was shaving at a window seat, and got up—I hoped he would step on to his terrace to see what it was all about—but it was only to get a towel before resuming his toilet.

M. KRISHNAN.



SHOWER BATH

I came here early in April, to keep my annual date with the southern summer. For a week all went well; slowly the budding heat burgeoned. Then suddenly massed clouds rolled up overhead and the rain came down in torrents. A passing shower, I said to myself while it rained three inches, and it passed. The sun burned fiercely in a clear sky next day, and the heat was all the more apparent for the interlude. But since morning it has rained again today, the sky is overcast, the air cool, and it looks as though I must wait for my assignation.

Sitting on my leaky verandah I have been watching birds in the rain. I happen to have Dewar's "Birds of the Indian Plains" with me just now—he has a chapter on "Birds in the Rain" in the book, and perhaps he wrote it not far from here. I would like to observe something original about the reaction of the birds around me to the shower, but such things do not go by preferences and I have to confirm Dewar largely. He says that birds enjoy the rain acutely, and that in India it is rarely that they are forced to take shelter from it. "They know naught of rheumatism or ague", they sit in the rain or splash about in puddles, delighted with the opportunity for a shower-bath, and afterwards there is a great shaking out of feathers and preening of wings, and they are smart and fresh and glad. Dewar also comments on how the first monsoons bring feasts of termites and other insects for birds and nestlings, and softens terra firma for the probing bill of the hoopoe,



All this is true. An odd group of three Common Mynahs have been parading the gravel path outside for the past hour, wading into every puddle and splashing about, as if trying to drown themselves in the knee-high water, and still they are not drenched—their well-oiled plumage seems

waterproof. I can hear the neighing call of a White-breasted Kingfisher, and know where it is—on top of a Casuarina pole in the back yard. Far out, in a field beyond the road, a flock of Cattle Egrets alight on dazzling wings, surprisingly white in this grey atmosphere, and quarter the wet grass. There are crows on exposed perches all around, determined not to miss a drop of the rain. The only birds I can see that do not seem too keen on a shower-bath are a party of White-headed Babblers, sheltering under a mango.

Watching these birds, it is obvious that Dewar wrote about their reaction to rain from accurate observation, but I cannot help feeling that he assigned a wrong motive for their behaviour. It is no craze for originality that makes me say this—it is that I can see no patent signs of joy in these rain-bathing birds. The lives of birds are ruled by instincts mainly, and their responses and emotional expressions follow set patterns.

There is a crow sitting on a dead limb of a Neem not twenty yards from me, and I have been observing it closely for the past half-hour. It has been sitting there dully, unmoving except to fluff its plumage or caw in a sad undertone from time to time—the illustration is from a leisurely sketch of this obliging model. Now, if this crow is enjoying the shower, I must say it takes its pleasures sadly: Poe's raven could hardly have made a less sprightly picture, had it been out there, on that branch.



Nor can I note any tokens of jubilation in the other birds out in the rain. Dewar says that the normally sedate mynahs shed their reserve when it rains, and go mud-larking in abandoned enjoyment. I am alive to the tonic properties of slush and downpour—it does one's soul good to get drenched and splashed with mud, for all ponderous unlovely notions of self-importance and dignity are shed at once, and this sudden jettisoning and the feeling of lightness that follows move one to frisk about and find life joyful. But I think the mynahs I see are undignified only because they are bathing, bathing vigorously in two-inch-high water—few beasts or birds (bar all cats) look their best at their toilet.

Birds are wonderfully equipped for extremes of climate and weather. And they enjoy dust-baths. But that is not saying that they may feel no discomfort from clogging dust and secretions in their plumage. Is it not likely that their addiction to rain is an unreasoned response, an instinctive utilisation of an opportunity to wash away dust and water-soluble accumulations from their feathers and skins? That would explain their "non-enthusiastic" but sustained insistence on exposing themselves to the first rains after every spell of dry weather.

WHISTLING IN THE DARK?

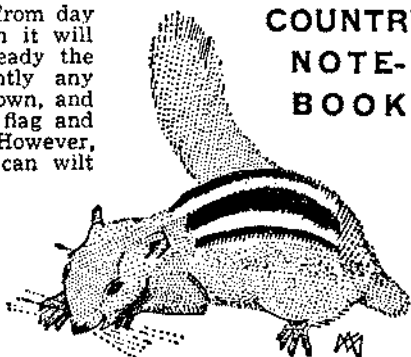
by M. KRISHNAN

THE heat gains strength from day to day, inexorably. Soon it will reach its sure climax: already the mornings open, not brightly any more, but with a sultry frown, and by 10 o'clock most spirits flag and most voices are stilled. However, there are spirits no heat can wilt and voices gaining fluency just now. The Koel, which was stuttering in April, is in full, fervid song, and alone among the mammals Palm Squirrels cheep shrilly and maddeningly through the fierce day.

Not that they are immune to the heat. Often I see a squirrel resting in leaf shade at noon, inert and flat on its belly along a bough, legs dangling down either side, strangely like some furred bloodsucker in its limpness of limb and attitude. Presently it rises, and climbs the branch to the roof of my verandah, and halts on a rafter under the flat, radiant tile. Then, all at once, a series of long, startling cheeps rend the stillness, each accompanied by an upward flick of the bottle-brush tail. From somewhere under the tile of my neighbour comes an answering volley of cheeps, and the duet is on, each chirrup cleaving its way through the quivering air with the physical violence of an arrow, and penetrating to the brain. I get up, and chuck the first thing handy at the grey form on the rafter, and it scampers away, jabbering shrilly—a minute later it is calling again from the roof of the garage.

Why do these creatures assail the enervated mid-day silence with energetic voices, when even the crows are quiet? At no time are Palm Squirrels shy or silent: they chatter intermittently through the day, and even at night, startled into wakefulness, they jabber. However, at other times their voices, even in shrill alarm, lack the irritating power and rhythmic insistence of their calling in May. I think their long, loud spells of calling in summer have a sexual signi-

COUNTRY NOTE- BOOK



ficance, but cannot assign a more specific cause. For though I have often heard the summer duet of squirrels, I realise that my observation is too meagre for certain inference or attribution. Speaking of the Three-striped Palm Squirrel (the creature I write about) an authority says: "The breeding habits of these, the commonest wild animals of India, are imperfectly known." I know, from several years of living with these creatures, that these squirrels breed many times in the year, and not always in summer. Only a week ago a baby squirrel, perhaps a few days old, wandered into my house, and I remember seeing baby squirrels, and watching adults carrying coconut fibre to the nest, at other times of the year. But I believe it is only in summer, mid-summer, that these squirrels are given to long bouts of calling.

Moreover, I know that both does and bucks indulge in this calling, and that it is not always squirrels of different sexes that call to each other. Perhaps these duets have only a social significance, after all. It is well known that animals that live more or less together like to keep in touch by the free and frequent use of their voices, and it may be that feeling suddenly alone and uneasy in the hush of noon the squirrels start their insistent chirruping, to reassure themselves and to provoke the voices of their fellows.

Country Postbag

H. H.B., Ishapur, is bothered by cuckoos. He hears them calling and wants to know what birds they are. One of them "has a four syllable call, 'Ku-hu, Ku-hu'" and he believes this is the Kokila or Indian Cuckoo.

"though some of the residents call it the Monsoon Bird." The other birds have calls which "can be variously described as 'Brain-fee-ver', 'Pee-pee-ha', 'Broken-pee-koe', 'Kyphul-pukka', 'Bou-katha-kow' and 'Chok-gay-low'."

It is not always possible to be sure of the identity of a bird from traditional descriptions of its call, for the hearer, familiar only with the known rendering may attribute it to another bird with a similar voice. But almost all the calls given by H.H.B. are well-known renderings, and are, in fact, the onomatopoeic names for the birds in the vernacular. There is no doubt about two of the three birds he refers to. One of these is the Common Hawk-Cuckoo or Brain-fever Bird, whose insistent voice can never be forgotten, once heard. It is this same bird that says "Pee-pee-ha" and "Chok-gay-low"—Fletcher and Inglis give the vernacular names of this bird as "Pupiya in Hindi-speaking districts and Chok-gallo in Bengal." The name is also rendered "Pa-pee-ha"; Sarojini Naidu has written a fulsome lyric about the bird, under this name.

★

The Indian Cuckoo (*Cuculus micropterus*) is the other bird about which I am sure. Dewar says of this bird: "Blandford speaks of its call as a fine, melodious whistle. I would not describe the note as a whistle. To me it sounds like Wherefore, Wherefore impressively and sonorously intoned. The vernacular names, Bowkatako and Kyphulpukka are onomatopoeic, as is Broken-Pekoe Bird, by which name the species is known to many Europeans."

That leaves us with the bird that says "Ku-hu, Ku-hu" and which is probably the Kokila or Indian

M. KRISHNAN answers readers' natural history queries.

Cuckoo as per H.H.B. and the Monsoon Bird as per local residents. I do not think this bird is the Indian Cuckoo (*Cuculus micropterus*) or a close cousin I believe Pied Crested Cuckoos (*Clamator jacobinus*), which are known by the name, Monsoon Bird, are not commonly found in the area from which H.H.B. writes—moreover, their call, uttered from the wing, is not always four syllabled and cannot be rendered, fairly, into "Ku-hu, Ku-hu." It is just possible that that magnificent bird, the Red-winged Crested Cuckoo (*Clamator coromandus*) might be responsible for the call—Cunningham records it near Calcutta. But it seems likeliest, to me, that the Koel is the bird H.H.B. refers to. I have lived for years in places where the Koel is plentiful, and the hen has a rapid, excited four syllabled call that is not unlike the rendering "Ku-hu, Ku-hu". This call is heard commonly at the commencement of the hot weather.

★

Mrs A. G., Delhi, reports about an extraordinary association between a hawk and a human family. According to her report this association lasted for over sixty years, and the hawk, a semi-wild one, used to stay part of the time with the human family, and go foraging for itself for months on end. Unfortunately, no clue to the identity of the hawk is given. Hawks and falcons are long-lived birds, and it is possible this one was a trained bird that escaped, and later found a home with the friendly family with which it associated, from time to time—that would explain its remarkable attachment to the family.

I have not heard of any similar association. Will readers, who can give me authentic instances, please write in, with all available circumstantial details?



COUNTRY NOTEBOOK

POCKET DRAGONS

I KNOW an aged tamarind at the foot of a hill, far beyond the line of cultivation. No other tree grows nearby, not even sizable shrubs—the sour leaf fall of tamarind inhibits vegetation in the neighbourhood. Only stones and a few dwarf, woody, hard-bitten plants cover the ground beneath the tree; and here, on a sunny afternoon, I have seen more bloodsuckers together than I have anywhere else—basking flat on every stone immediately outside the circle of shade, or crawling about within it. Even in wet weather, sheltering under the great dome of the tree, I have been more acutely aware of the company of “garden lizards” than in any garden, though not in such unpleasant profusion as when it was sunny.

I have always wondered why bloodsuckers should foregather here in such strength, for the place is not specially rich in insect life or in anything else that is obviously attractive to these lizards. It is hard to get to know bloodsuckers, or understand their whims and prejudices, without being a bloodsucker oneself. They are different from other small common creatures, so given to fits of passion and rage, distrust and imbecile behaviour. But then this is hardly surprising. They belong, properly speaking, to an age when we were not there, when great lizards roamed strange forests, flowerless and with green grooved trunks, and waded through primeval swamps. Dragons in myths, and bloodsuckers in fact, are the survivals from that primitive past.

I used to think, in my ignorance, that these creatures had survived in such numbers, when so many of their betters had perished, because they were not good eating—that like the Keatsian nightingale they were immortal because “no hungry generations” trod them down! But I know now that predatory animals are less fastidious than I had thought. Hawks kill and eat these lizards when they can, other birds take them occasionally, and mongooses and small carnivora reduce their numbers. Sometimes, it is true, the killer does not eat its victim, but the bloodsucker’s looks provoke slaughter, however unpalatable its flesh. There is no survival value in not being eaten, if that does not mean immunity from attack.

In fact the only protection that a bloodsucker has, apart from its retiring disposition and formidable looks, is in its surroundings, in the tangled, thorny bushes and fences that it loves, and

into which it retires so promptly from its enemies. I do not know if anyone has commented on this before, but it is usually the male bloodsucker that leaves this protective cover, or strays far from it. Then, on the more exposed ground, the male tries escape first, but when no tree or bush is close by, it puts on an intimidatory display: it raises and lowers its flaming orange body endlessly on its livid legs and throws out its bloody jaws and dewlaps.

This display might well scare an impressionable foe, but the blackguardly Jungle Crow that attacks it has no susceptibilities. The bird hops behind its victim, and with a quick, sideways tug at the tail turns it over. The bloodsucker picks itself up, turns round and rushes open-mouthed at the tormentor, which side-steps the rush and repeats the attack on the long, obvious, unbending tail that is the lizard’s undoing. It is murder by slow degrees. Gradually the unfortunate creature is reduced to numb immobility, and the crow’s assaults grow bolder, till seizing its battered victim by the throat it flies away—to be mobbed by other crows.

Often, however, some thick-leaved tree at hand saves the bloodsucker. It is expert at putting a massive trunk between the onlooker and itself—it was only by reminding myself that I belonged to a higher stage in evolution, and could not allow my race to be disgraced by inferior patience and cunning, that I could get the sketch of a bloodsucker on a neem tree for the illustration (incidentally, it was a brilliant, pure chrome yellow, with a black half-collar and little red at its throat). Bloodsuckers climb spirally, a habit that baffles enemies (birds, especially) when they are on trees.

However, the males venture into the open quite often, resplendent in their frills and spikes and colour, and pay dearly for their daring. The ochreous females are bashful and sensitive to scrutiny as any pardanishin—they keep close to cover and they know, somehow, when they are being watched. The age of pointed morals is as surely spent as the reptilian age (thank heaven), but it is fact that it is the modesty of the females that keeps the race of bloodsuckers still alive.

M. KRISHNAN





M. Krishnan's

THE SUNDAY STATESMAN, JULY 1, 1951

Country Notebook

Postbag

WRITING from Jadavpur, near Calcutta, apropos the Postbag note of June 3 on cuckoos and their onomatopoeic Indian names, M.C.C. says that the Koel or Kokila is often confused with the Indian Cuckoo (*Cuculus micropterus*—"Bo u kathokao" in Bengali), though it is only the latter that belongs to the same genus as the European Cuckoo (*C. canorus*—which is also found in the Himalayas), Wordsworth's "wandering voice". He points out that the Koel is *Eudynamis scolopacea* in Latin, and has no English name, but is still misnamed the Indian Cuckoo—he thinks this is because both are parasitic, both have calls that can be rendered "cuckoo" and both are associated with spring.

★

Well, M.C.C. is quite right over the generic affinity of the Indian Cuckoo with the English Cuckoo, the bird that inspired Wordsworth and Logan: incidentally, in Elizabethan days this bird had a different literary significance:

"Cuckoo, cuckoo!—O word of fear,
Unpleasing to a married ear!"

I have no wish to side-step M.C.C.'s point, and wander down the aisles of a literary causerie, but he mentions the cuckoo in English poetry, and it is more difficult to write of the Koel without poetic allusions than of any other bird.

★

Not the nightingale, not the lark has been so celebrated in verse: the poetry of every Indian language pays lavish tribute to the Koel. Indeed no classical Indian poet can write of love or springtime without mention of the bird. When I spoke of the Koel as a cuckoo I meant only that it belonged to the cuckoo tribe—the parasitic Pied Crested-Cuckoo and the non-parasitic Sirkeer are both cuckoos, though neither belongs to the genus *Cuculus*. I would also point out that the name Koel (it is *Kuil* in the South) is quite as onomatopoeic as "cuckoo". As for association with spring, in the Madras area (where Koels are singularly abundant, as Dewar remarks) the bird

is first heard in late March, or early in April, and persists through May, June, July and even August—and then the memory of its voice lingers in one's mind till March again! The Koels call throughout the breeding season, and they breed as long as the crows do.

★

However, M.C.C.'s main point was that it was wrong to call the Koel the Indian Cuckoo because that name belongs, scientifically, to *Cuculus micropterus*. That is quite so. It is even more wrong to call the Koel the Brain-fever Bird (*Hierococyx varius*), but this confusion of identity is also known. Indifferent observation, the love of cover of arboreal cuckoos, and lack of acquaintance with the tribe are responsible for such mistakes. Once the birds are known, it is impossible to confuse their voices.

In a subsequent letter M.C.C. adds that he has been studying the voice of the Koel lately and has noticed that "the male has two distinct calls: one is a long 'Ku-oo' uttered solitarily under cover of foliage; the other is a short 'Ku' repeated an arbitrary number of times in the mellow and pleasant voice of the cock. The hen's voice is shrill and high-pitched and its only call is a quickly repeated 'Kik' sometimes having a trilling 'Kukuk' in the end." He adds that the male and female usually respond to each other, though in the early hours of morning the entire Koel population of a place seem to indulge in a chorus.

★

The call notes of Koels have been well described in most textbooks, but at the risk of treading much-trodden ground I may add to M.C.C.'s succinct note. I take it the "Ku-oo" he refers to is the well-known crescendo of the cock, also syllabised as "K u i i-K u i i-K U I I", the "Koel's fluted song" of Edwin Arnold. Both cock and hen indulge in a torrent of "keka-rees" and "kik-kiks" when excited or alarmed, the hen's thin, high "kik" being distinctive. And the cock indulges in a longish shout, more like my conception of

a war-whoop than anything I have heard, at times.

★

There are less coherent calls, or rather these calls are stuttered incompletely sometimes, especially early in the season. According to Sarojini Naidu the Koel has yet another call. She writes of "the wild forest where upon the champa boughs the champa buds are blowing" (as these cussed flowers often will) and "K o i l-h a u n t e d river-isles where lotus-lilies glisten" and says the Koel sings "Lira! lree! lira! lree!". I have not heard this call.

★

It is the quality of fervid, restless excitement in its voice rather than any precise pattern of call or sweetness that makes the Koel the Voice of Spring. It is true that Koels call long before dawn, but if M.C.C. will keep awake on a moonlit night and listen, he will hear them calling at all hours of the night. Let me end this note, so frequent in literary allusions, with a rendering of the finest lines I know on spring unrest. The address is to a lover who asks for a story:

"Now, when the roving moon is out, and the soft south wind blows;

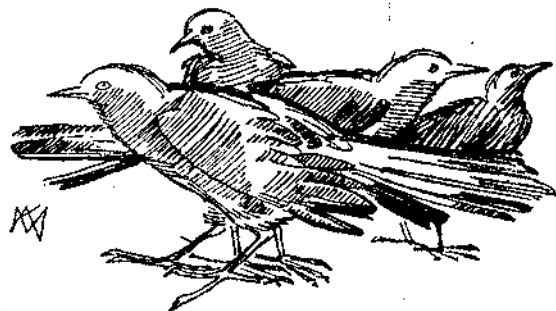
When sleep is fled;

And loud Koels usher in each watch of the night—

Now is no time for stories."

M. KRISHNAN'S "COUNTRY NOTEBOOK"

Birds Of A Feather



WHAT do you suppose would happen if you and half-a-dozen of your cronies were to dispense with all privacy for a week and spend the time together, each hour together, awake or asleep? Well, murder could happen, anything could with no decent interval of aloneness, but this is certain: At the end of the week, if you survived it, you and your fellows would have acquired an abandoned laxity of dress and conduct. Bristly chins and loose, amorphous clothes are inevitable, and your conversation would have changed to a babble. Prolong it to a fortnight, and you could never change back to your fastidious selves thereafter.

This is just what has happened to the White-headed Babblers. They live too much together to keep up appearances, and they care no more. Actually, they are not the frowziest members of the frowzy babbler family—that distinction must go to the

Jungle Babbler. But their long, straggling tails, their habit of hopping along with drooping wings, their lax plumage and weak flight all proclaim their caste, and they have the most unstable and querulous voices even among the babblers.

They cheep and chuckle thinly to one another, as they go rummaging about; and at times their conversation takes on a hushed and secretive tone—one could believe they were whispering and plotting, except that no one whispers in a high, weak tremolo. Then suddenly, and for no cause, they break into shrill, angry shouts and peals of hysterical laughter. There is a squeaky commotion in the bush, and a string of loose-feathered, long-hopping babblers emerges: the birds whirr and sail on rounded wings to the end of the garden, where they grow suddenly casual again, and turn over dead leaves in their usual, haphazard manner.

Birds are highly emotional for all their strong instincts, but usually their responses are un-

derstandable and follow a set pattern. Few of them have the giddy temperament and moral instability of these babblers, this patent weakness of wing and wits. But perhaps I do them an injustice, for recently I saw a half-fledged White-headed Babbler behave sensibly and coolly in the face of real danger. This little one was sitting in a tangled hibiscus bush, somehow separated from its elders, when a pair of evil-looking crows noticed it, and promptly commenced a combined attack. An infant of another kind might have panicked and rushed out into the beaks of the baby-snatchers, but this one knew when, and where, it was safe. It dropped into the close tangle of the lower branches where no thick crow could follow, and stayed put in spite of determined efforts to drive it out. Then all at once, and appraised in some mysterious way, a squealing, yelling, furious mob of babblers arrived, and flung them-

selves on the crows, who "fled precipitately"

It is true that these birds can look like an old, faded feather mop with a few old quill pens stuck on at the tail end, true that they quarrel among themselves and have watery eyes and lunatic, white heads, but they have virtues that are not so common these days—courage, and unity in the face of danger. Every member of the wrangling clan will fling itself headlong at the raiding hawk that has seized a protesting babbler, and as a rule the rescue is effective. There is a mossy club somewhere—I think it is the Union Club, in Madura—that has a bundle of faggots in bas-relief over its door, to symbolise the unbreaking strength that comes from unity. A party of White-headed Babblers would, I think, make a more decorative and truer symbol of this sentiment.

M. Krishnan's COUNTRY NOTEBOOK

THE Large Grey Babbler, or "Gangai," is a bird of open hillsides and wooded scrub, and by no means a rara avis. Writing of it incidentally, Dewar remarks "This is commoner than I thought. It occurs in most districts of the U.P." In the Dharwar area and adjoining Karnataka tracts it is quite a feature of the countryside—its distribution in India is wide, in not so arid places. But still I can find no mention of this babbler in the lists of "Birds with Remarkable Cries" in books on Indian ornithology, which is remarkable, for few other birds so

dominate the locality where they live.

This is no dingy, unobtrusive bird, though it is a babbler and untidy, and it is not shy. Almost a foot long, it is a warm, blotched grey, rufescent on the cheeks, with dark rounded flights, an eye-streak that is clear when one is not too close or far away, and a long tail, broadly edged with white on either side, that is distinctive and most conspicuous in its frequent passage from bush to bush.

It loves the open, and does not skulk in the undergrowth or hide in foliage—you cannot miss this bold babbler, because of its size and blaze-edged tail; and even if you do, no matter, you will notice its fellows. For it is highly so-

ciable, even for a babbler, and goes about in parties invariably, in a loose string whether on the ground or bush or in the air. And then, of course, there is its voice. One would need to be stone deaf, and almost blind, to miss this bird where it occurs.

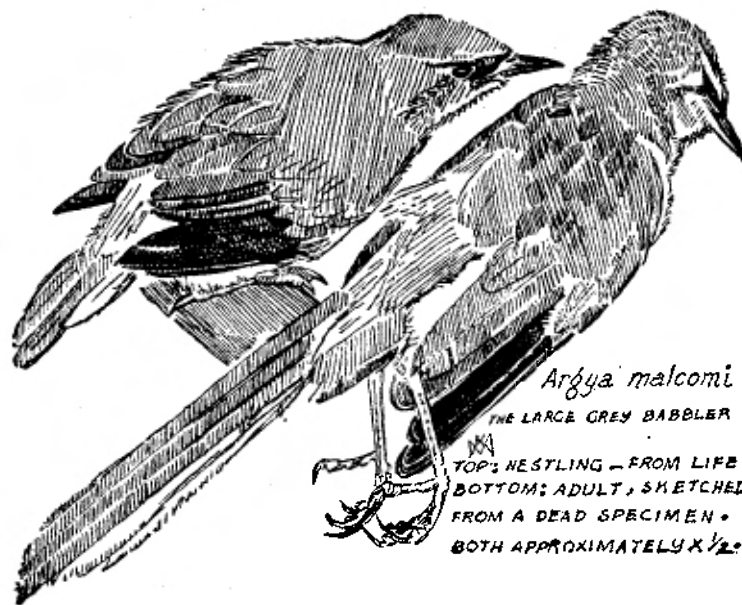
There are many birds in our country with compelling voices, but they pass. Spring, and the monsoons, resound in the countryside with the voices of cuckoos and rollers, and even the hot weather at its peak stimulates certain birds, notably the barbets. However these voices are stilled when the seasons are past—even the Koel is silent for six months. But rain or shine, the "quey, quey, quey" of the Large Grey Babbler is heard, in a chorus that persists right through the day. Only the night brings relief from their loud, insistent calling. If we could record the total amount of sound made by each bird in a year, I think this babbler would have the distinction of being the noisiest.

The call of this bird has been well rendered "a loud, harsh 'quey, quey, quey,'" and I suspect the native name ("Gangai") is onomatopoeic. But these renderings do not convey the whining rhythm of its voice—the nearest I have heard to it is the noise produced by a bull-roarer (the kind that has a clay cup with a tightly stretched membrane over its mouth, instead of a wooden block). I have also heard a motor car, stuck fast in mud, come out with somewhat similar sounds. The loud querulous whine of this bird's voice dies down and swells with that quality of mechanical repetition. And it is as untiring as a motor.

Like other babblers, the "Gangai" will unite in the face of

common danger, and since they are large and strongly built, hawks think twice before they decide to swoop down on a straggler. Once I saw a Shikra pounce on a Large Grey Babbler sitting on a bough, and the amount and volume of the victim's protests were astonishing. That Shikra was promptly mobbed by the rest of the clan, the victim (which seemed uninjured) joining in the chase, and only the superior speed of the hawk saved it.

These babblers breed in summer, perhaps they breed again, later in the year. The nest is not placed high up, but is usually in the heart of a thick, thorny shrub or tree, and well protected. The nestling sketched for this note was taken on July 14. It was then probably a fortnight old, and was just able to fly a few yards. Incidentally, the head is carried well up, with the crown flat, in the live bird—the jay-like pose of the head in the sketch from the dead, adult bird is never seen, and was unavoidable in the sketch as the bird was stiff.



Argya malcomi
THE LARGE GREY BABBLER
TOP: NESTLING—FROM LIFE
BOTTOM: ADULT, SKETCHED
FROM A DEAD SPECIMEN.
BOTH APPROXIMATELY X 1/2.

The Deluge

ABOUT mid-July I visited a hill-bound valley where I had lived for years, in the wake of a downpour. Spells of heavy rain, after the first monsoon breaks, are not unusual in this area. I can remember a day here when it rained 12 inches and many stone-in-mud dwellings collapsed, and other days when overmuch rain caused damage to fields and houses. But never within living memory had the place suffered such ravages as on that July Wednesday when $3\frac{1}{4}$ inches of thick rain came down in two hours.

The top-soil in the freshly sown fields had been shifted bodily by the rain to level hollows and ditches, or lay in a rich, spread sludge on a few fortunate, low-lying acres. The narrow, sunken river-bed (named "Nari-halla," the "girl-river" literally, because of its meek, effeminate course) had assumed incredible proportions in places, and trees had been uprooted and flung into the turbulent red torrent that roared along it, rising to unprecedented heights—like some bashful, retiring maid suddenly turned violent, storming virago.

At first sight the lesser life seemed to have suffered nothing, beyond passing inconvenience, by the deluge that had altered the familiar face of the countryside. Only after a week of looking about did I realise the toll it had taken of live things. In a ditch full of oozy silt I found hundreds of beetles and grasshoppers and other insects, slain by the rain. And in what served as a storm-water drain for a street there was a young, drowned Palm Civet—I have seen a drowned Palm Civet in a gutter, after heavy rains, once before: perhaps this creature lies up in subterranean retreats that are easily inundated.

What struck me most forcefully, on second thoughts, was the dearth of infant bird life. July is the month when one sees nestlings and newly-fledged birds here—not a single youngster did I see, flapping quickly in its gawky



passage from tree to tree. The older birds were there, quite sprightly and unconcerned, and their cheery abundance masked the lack of young birds from the casual eye. Two pairs of robins were courting gaily outside the room where I stayed. I found the remnants of a nest on a ledge of the building, exposed to wind and weather—very likely it had belonged to one of these pairs, and had held fledgelings not so long ago. Sunbirds and warblers were chasing through the garden in pairs, doves were indulging in their spectacular displays, coming down in a fan-tailed, spread winged corkscrew descent from high up in the tree tops, bulbuls were calling cheerily to their mates, and an Iora whistled to his, in a strikingly human tone. Obviously the birds were going through a forced, compensatory second spring.

Logically enough, the birds that nest in holes in wood, like the barbets and woodpeckers, seemed to have suffered little or nothing. I did not see their young in proof of their survival in safe places, but that proves nothing—I have never seen their young commonly so perhaps they come out of their holes only when full fledged. But I did notice a Brahmany Mynah flying down to the grass to forage, and returning to a hole in a tree with prey untiringly.

Allowing for everything I believe the downpour must have killed over 70% of the fledgelings here, a staggering loss of infant life.

Country Notebook

"THE FRETFUL PORPENTINE"

NOT being one of those untiring souls that raise vegetables and tubers in the countryside, or even a lover of flowering bulbs in orderly rows, I have never had to wage a personal war against porcupines. But I see them once in a way, motoring at night, and recently I saw them twice in my way, and was again impressed with their peculiar and effective manner of retreat.

Other animals caught in the beams of headlights stop to one side of the road and stop, dazzled by the glare, as if not sure of their suddenly bright ground. But the porcupine makes an immediate get away—there is a momentary pause and an out-bristling of quills, sometimes even a rattling of quills, and then the brute turns sharply and makes a bee-line for the nearest bush.

A porcupine in flight is a remarkable and indistinct sight—I can only think of a clockwork phantom in comparison. The stumpy, fast-moving legs are hardly visible beneath the quill-boosted body, and this, coupled with the linear directness of retreat, gives it the appearance of a thing on small wheels propelled by interior clockwork—and the outspread quills make it go suddenly pale and blurred and large. Half way to the bush, the apparition grows darker and smaller as the quills are allowed to fall back; it stops dead in its tracks, turns at a sharp angle, and bolts into another bush before one has time to recover from this surprise move. A wary beast and a cunning one is the "fretful porpentine," but of course its most peculiar feature is also its most obvious, the barrage of quills.

★

Those of us who own a small rectangular box with sides of parallel porcupine quills, or a porcupine-quill pen-holder, can have no idea of the resilience of these miniature lances on the live animal. A quill plucked from a newly killed porcupine can be bent into a "C" and will spring back into shape when one end is released. The stouter and shorter quills on the rear (these are more white, and near the tail these are all-white) are painfully sharp and strong enough to pierce deep into flesh.

I have never seen a porcupine attacking anything, but the story about its shooting quills at its enemies is just a story. Once I tried to irritate a captive porcupine into shooting quills at me, but naturally the poor thing could

only retire to the farthest corner of its cage to escape my prodding bamboo. Porcupines rush at their tormentors in reverse gear, and at great speed, spitting them through. It is obvious, from the lie of the quills, that they must charge backwards to make effective use of their protective armour. Like many other rodents, they have highly vulnerable heads.

Unfortunately for all concerned, porcupine flesh is much esteemed by the predatory wild beasts. Both the tiger and the panther will kill and eat porcupines—but extraordinary cases are on record of the great cats being mortally wounded by the quills. I think I can understand the mixed feelings of a feline sighting this spiky quarry. In my unsophisticated childhood, when I was sorely tempted by the vivid redness of the prickly-pear fruit, I had to face a similar problem!

★

The tracing from a photograph illustrating this note is of peculiar interest. On inquiry of the person who shot this panther, and the one who took the photograph, I learn the beast was shot at night over a bait, and under conditions which made a clear view of the head or immediate recovery of the body impossible. It was found dead next morning, a few yards from where it had been shot, and the porcupine quills were noticed only then. I am assured that a hard tug at the quills failed to dislodge them and that they were sunk an inch or more deep in the flesh—also, that the lowermost quill had penetrated to directly under the right eye-ball, so that when it was pushed about the eye was moved.

There is an instance on record of a porcupine attacking a dead leopard (also, of the two animals inhabiting the same earth on a basis of armed neutrality!) I am inclined to think that the leopard in the photograph was attacked after it was dead. Leopards (and all cats, unlike dogs) can turn their fore-paws around and clutch at things with them: I feel that the quills, painfully situated as they are, must have been disarranged or badly bent or even broken by the frantic efforts of the leopard to dislodge them, had it been alive when stuck. Only the apparently undisturbed appearance of the quills makes me think this. Perhaps readers who have personal knowledge of similar instances can shed further light on this not too obscure picture.

M. Krishnan



TRACED FROM A PHOTOGRAPH LENT BY H.H. THE RULER OF SANDUR —

A porcupine's quills in the face of a dead panther.

COUNTRY NOTEBOOK POSTBAG

ARE TOADS POISONOUS?

CAN frogs, or toads, be poisonous, not just capable of causing cutaneous irritation, but deadly poisonous? I.A., from Arrah, raises this question in a letter, and says that some time ago he heard of a boy dying of frog bite. He says that so far as he knows frogs are non-poisonous, and that while toads can excrete an irritant fluid from their skins, this can cause nothing graver than acute irritation. He adds that even substantial inducements cannot move the boys of his place to catch frogs, because they think the reluctant bite of frogs is quickly fatal. I.A. goes on to suggest that the frog that bit the boy of Arrah might, in its turn and previously, have been bitten by a venomous snake, which might account for the fatal consequences.

★

Well, I think not. I.A.'s explanation seems too far-fetched. How could the poison in the frog's circulatory system, from the snake bite, have got into the boy's blood when it bit him? So far as I know, and a good many people with a quite formidable knowledge of batrachians know, there are no fatal frogs. Frogs have no fangs, only a row of small, conical teeth along the rim of the upper jaw: they cannot even chew. Anatomically they are incapable of a venomous bite. Toads are even less capable of this, since many of them lack the elementary teeth of the frogs. A pity, if you ask me, and a loss to the language. Only the words "you warty, low-down venomous toad!" can meet certain situations adequately, and biology bars their use.

★

Toads can, of course, excrete a milky, irritant fluid from the glands on their skins. This can be quite painful and consequential, but I am unable to find an instance of its killing anyone. Dogs are very sick after mouthing a toad, and I seem to remember having read of an American instance of a dog having died in consequence of attacking a toad—but I am unable to verify this. As I have pointed out before in these notes, the line that divides the frogs from the toads is very thin at times, almost non-existent in the case of tree-frogs (and tree-toads).

Perhaps the frogs of Arrah are, in reality, toads with touchy skins, and that is why the boys fear them. But, of course, there need be no explanation for fear. Why are harmless skinks dreaded in the South?

★

I wish I.A. had something better to offer than hearsay on death from frog bite, but though I am unable to find any evidence in favour of poisonous frogs or toads in India, I think his letter interesting, because it raises a wholly different issue, in an anti-corollary sort of way. The gecko on the wall is harmless and non-poisonous—

M. Krishnan

ANSWERS READERS' NATURAL HISTORY QUERIES

I believe the Chinese eat certain kinds of geckoes. But everyone has heard, and read circumstantial newspaper reports, of families dying en masse from partaking of food with which a gecko had been cooked, accidentally.

The Secretary of the leading natural history society in this part of the world is unable to give me a radical explanation for these reports. It would appear, from the reports I have read and the accounts I have heard, that a gecko boiled with rice results in a powerfully fatal meal. One good way of verifying the truth of these reports would be to prepare and eat such a meal, but being a rabid vegetarian and a coward I am unable to verify things personally.

★

P.S., of Calcutta, has an experience to tell that is very much to the point. He says: "I am able to answer your query about geckoes boiled in rice. When I was a prisoner of war in Java in the middle of 1942, I found, one lunchtime, a par-boiled gecko at the bottom of my plate of rice. We were hungry and there was no question of throwing the rice away, although at that stage of our imprisonment we were not hungry enough to eat the gecko. The other officers thought the incident vastly amusing; I suffered no ill effects from the meal except a rather savage (but quite illogical) feeling towards the cookhouse staff."

So there we are.

Country Notebook

PLUMES IN THE WIND

I WAS surprised to find peafowl in the place. There was a tortuous "nala" here, full of a coarse, buff sand—an old river-bed along which no water flowed even in heavy rains, though it held subterranean stores and basin-like pools. Clumps of trees dotted its course, and in places bushes and the wild date formed shelving banks, but otherwise it was flush with the flat red fields around and the flat black fields beyond. Only grasses and weeds grew besides the sprouting corn—the country was so dead level and open that one could motor right across it at a fair speed. It was almost like some gigantic map rolled smoothly out, with a tree here and a clump there sticking out of its flat spread in dark green marking-pins. However, there was a breeze moving the grass tops. It was a steady, low breeze, not balmy, not gusty, but always there with a palpable pressure.

★

The fauna was typical of this open spread, capable of long speed. There were herds of Black Buck in the black-cotton soil, and a few buck in the red fields, foxes had their earths in the sand of the "nala," and many of the birds belonged to the bare, brown earth—larks, the Tawny Eagle, the doomed Great Indian Bustard, partridges where there was cover of bush and sand-grouse where there was not. I had seen peafowl in scrubland before, but never in such naked, even country.

At first I was sure they had been introduced, that by some unlikely feat of adaptation these peafowl had taken to an exposed life. But inquiry soon disproved my theory. There had been peafowl here always, not just a few along the wooded parts of the "nala" as now (where there were roosting trees and safe water), but in abundance, all over. What remained were survivors of a once plentiful tribe, too trustful of humanity. Furthermore the vague, blue, undulating ridge on the horizon marked solid peafowl ground, broken, bush-clad hills, and though this was far away it was not so far that trekking peafowl could not get to it from terrain they disliked or feared. It made no difference to the remarkableness of finding them here whether or not some

ancestral pairs had been introduced.

Man seemed to be their chiefest enemy here. The greater cats shunned the flatness of the place—I did not even see a Jungle Cat here. Foxes do not attack such big birds, and I doubt if the mon-goose would; even stalking the sharp-eyed, absurd-looking chicks would be a job with no cover. Still, I could not help thinking that a peacock out in the open, say, a furlong from the nearest tree, ran exceptional risks in this breezy, flat country.

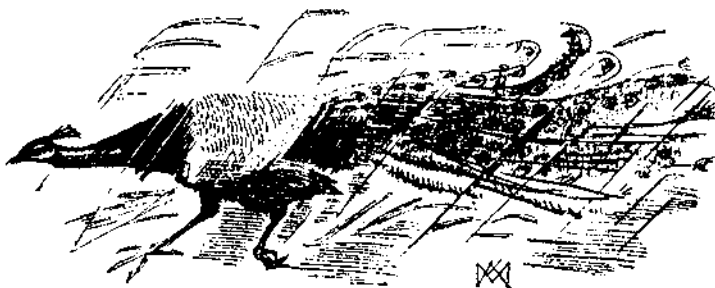
★

I chased a magnificent cock and three hens upwind, across four fields, just to see what they would do. They preferred to run in the young millet, straight towards a thick clump, and had no trouble at all in keeping well clear of me at first, in a tight bunch. Then the hens drew ahead, leaving the plume-laden cock yards behind. The wind, with no bush or hedge to break its insistent push, seemed to bother them considerably. When pressed, the cock crouched lower, depressed his bobbing, flagged head till it was almost horizontal at the stretch of his neck, and ran in a slued rush, on high-stepping, labile legs—the wind against his splendid train pushed him bodily to one side. None of the birds sought flight, and when I stopped to recover my nicotine-undermined breath, on their entering cover, the cock seemed quite as badly blown as I. Peafowl fly farther and faster than most people think, but they take time to get going in the air, and in such open country I think a determined hunter could run them down.

★

Incidentally, I was puzzled to read, in a standard book on Indian birds, that the caterwauling scream of the peacock is its alarm call. This call, with which it greets the sun each day, may occasionally be used as a warning, when the enemy is far away and clearly visible. But the typical alarm call is a harsh, grating, quickly repeated "Crank-crank-crank-crank"—a sure indication that this vigilant fowl has sighted a prowling predator.

M. KRISHNAN



M. Krishnan's

"Country



Notebook"

COCKNEYS IN THE COUNTRY

WHOEVER would think that Philip Sparrow, perky, cock-sure and bumptiously dominant in the city, would lose heart in the countryside and become a mild and modest bird! It is windy space that works the change. The assertive, loud chirp is toned down by open air to a weak treble, and no longer sure of themselves in enhanced surroundings, the birds seek comfort in company. They go about in tight flocks, settling in a kit on threshing-yard and harvested field, gleaming the stubble, together. And when they fly, high and long as they rarely do in cities, they keep together still and cheep to one another as they go dipping and rising overhead—their voices in passage, refined by tall air, have a tinkling, almost musical quality.



Now, I know it is all wrong to judge birds (or beasts for that matter) by our experience and to attribute human motives to them. But I believe in the "one touch of nature" that "makes the whole world kin," and am unaware of scientific evidence against the view that animals can experience feelings and emotions known to us. Surely a bird feels fright and joy and depression as acutely as we do—their manifestations may be very different in a bird, and of course it is utterly wrong to ascribe intellectual appreciation or sentiment to it, but it feels these things all the same. I think we can understand animals emotionally at times, when reason makes no sense.



Once, on a beach near Masulipatnam, I realized what loneliness could mean. I was walking along a vast expanse of flat grey sand, with a flat grey sea beyond, and there was no life anywhere around except for an occasional, scuttling crab towards which I could feel no affinity. There was a level breeze blowing, no friendly bush or mound broke the dreary, grey flatness stretching away from me as far as eye could see, and suddenly I felt puny and insignificant. My stride seemed bereft of progress and my tracks on the sand only deepened the conviction of my futile nonentity. I was a bug, crawling hopelessly on, and I was quite alone in the gathering dusk. I have often been alone but that was the only time I felt the need for company. It seems likely, to me, that birds in open country are more gregarious from a somewhat similar cause. I think that animals, in common with us, gain confidence in restricted settings.



Naturally, all diurnal creatures grow less jaunty as daylight fails and seek safe retreats, but I think the roosting of these countryside sparrows is significant of what I have been saying. They do not retire in pairs and parties to spend the night on a rafter or a lofty bough, but crowd in hundreds in a tangled bush or some low, much-branched tree, so thickly together that the foliage seems suddenly doubled in the dark. Dozens huddle in rows along twiggy boughs, each row possessed of a confluent, coonobitic unity by the bodily contact of its birds. There is no prolonged hubbub at these roosts, as there is at the roosting trees of other birds. There is a confused chirping as the sparrows come in and settle, then the chirps grow thinner and subdued till they fade altogether. By the time it is dark there is hushed silence, and the birds are huddled and immobile—but many of them are awake still.



Other birds also roost thickly in bushes, in the scrub. Mynahs, Bee-eaters, Munias, Grey and White Wagtails, all crowd into bushes or trees at sunset, often in hundreds. These same birds, in the less open habitat of cities and towns, are less massively sociable when roosting: there are exceptions, but on the whole they are definitely less sociable in urban settings. I believe it is the too open, limitless expanse of the countryside that makes all these birds pack solidly together, as night draws in. There is safety in close numbers—or a sense of safety. However, the fact remains remarkable that sparrows, the most self-assertive and cocky of cosmopolitan creatures, should be so diffident, tentative, and constantly together in the scrub.



Country NotebookTHE HUNTED
HARE

THE warm, brown-gray ball of fur that went scudding across the carpet, with two excited children in its wake, reminded me of my schooldays. Not that an infant hare graced school or home then, but in the massive, oppressive collection of "selections from the classics" that we had to endure was a delightful account of pet leverets by Cowper—I remembered, through 25 years, the one lesson that had not been an infliction. Naturally, my recollections of it were non-detailed: I could only recall the pleasure it had given me, and something about this little captive brought Cowper back to mind.

*

This little one was barely a week old, but already it could outrun its pursuers with ease—the lack of cover and open space in the room were against it, though, and the children cornered it between the walls. Moreover, it showed little fear of humanity, being too young and inexperienced. It had to be fed its milk, but ate "kariki" grass, the favourite food of hares in these parts, with relish (this wild, outspread grass has been identified for me by a Forest Officer as *Cynodon dactylon*). The prick ears were black outside and there was a patch of black on the back of the neck—it was a baby Black-naped Hare.

*

Natural history books tell us how the hare is born with its eyes open on a hostile world and can run within a short time of its



genesis, how this is a provision of kind nature to a defenceless, exposed infant. They also tell us how well a hare can run, with speed and manoeuvre, but say little about the risks it runs, all its life. I doubt if any other beast is food to so many mouths. Mongooses, jackals, wild cats, even leopards, all stalk and hunt hares in scrub and open jungles—eagles and hawk-eagles swoop down on them by day, and when it is dark, great, hush-winged owls are quite capable of kidnapping young hares.

*

Hares are not prolific breeders, but still they continue undiminished. Their sharp senses and versatile speed no doubt serve them well. It is remarkable what an instant getaway a sitting hare can make—the quick kick against the earth of the hind legs, with the length of the foot from toe to hock, gives it a flying start. When going all out the levered kicks of the hind legs propel it onward in low, long bounds, at times through spiky cover; but of course a hare can take a high jump right over a small bush if it wants to. However, speed is not the only escape that hares seek—I have often seen them escape by slow caution, too, and by staying inconspicuously put.

*

Recently I had occasion to notice this again, when two friends of mine indulged in an afternoon beat of a furlong-long belt of dense bush, along a dry water-course. I was with the beaters, and neither gun cared to shoot the few doves that rose from the shrubs that we pelted with clods and beat, literally, with long sticks. Partridge and hare were what they wanted, and both lay close and invisible in the cover. When we had reached the end of the line of bush, with only an impetuous partridge to show for our pains, one of the guns suggested a reverse beat, and we had to pelt and flog the spiky bush all over again. Nearing starting point, a hare was seen momentarily, streaking into cover, and excitement grew high.

*

There were only a dozen bushes left before the cover ended abruptly and these formed a solid limb by themselves, separated from the main body of the bushes by a yard of open space. I was posted at this point to prevent the hare breaking back, and a man was sent on ahead to guard the open space in front. Then an intense, clamorous beat of this small area, known to contain the hare, commenced. After a while I ceased being stop and became a still, silent watcher. Presently the hare came creeping back, its long ears turning around in almost circular orientation to catch the bewildering shouts from all sides, each slow, forward step taken gropingly, as if it were lame in all its legs. It did not see me, but crept on, and so tense and anxious were its looks and movements that I clean forgot my duty, and stayed frozen. After reaching the end of the cover, my friends turned back, disgusted with the inexplicable escape of the quarry. "Anything come your way?" one of them shouted, sighting me. "Not a mouse." I lied with smug truth, as I crossed over to join him, and the hare lay down in the safety of the twice-beaten bush.

M. Krishnan

Country Notebook

COBRA LORE

SOME time ago I had a discussion with two friends, both educated scientifically, on the alleged revengeful nature of the cobra. According to them the snake nurses a personal grudge against those who try to injure it, and takes the first opportunity of reprisal. They told me of instances within their own knowledge where cobras had bitten men who had, earlier, been hostile—in one case the snake was said to have picked out its victim from among a group of men on a field at night, when the man lay sleeping under a blanket with only a fateful great toe exposed.

My friends, who had originally advanced the theory that in identifying its enemy the cobra went by his voice, discarded it at once when I told them that snakes have no external ears and have poor hearing, so far as we know, though they are sensitive to ground vibrations. Very well, they said, a cobra spots its man by some trick in his gait that sets up a recognisable pattern of ground vibrations, or if that is too far-fetched, by sight. Their point was that animals with quite a low grade of intelligence can still know particular people, through senses ill understood by us, or by some overall impression we leave on them.

★

There is something in that. Dogs can distinguish between men with a certainty that is sometimes surer than ours, and are capable of long spites, and milching goats know their masters. Both these beasts are pretty high up in the order of animal intelligence, but I believe even poultry and pigeons can discriminate between familiar people and strangers. But granting that a snake would know a familiar man (this does not imply recognition in the human mode of recognition), I still think the instance of the sleeper in the field, cited by my friends with much circumstantial detail in proof of their view, clinches the argument against it. Surely no snake, however sapient, observant and vindictive can know its man in the dark by a single, naked toe!

I may be asked why I accepted the stories of my friends, based partly on hearsay. There was no need to disbelieve. On questioning them closely there seemed to be little doubt that three men, at different times and places, had been bitten by cobras which they had tried to kill earlier. I realise the superstitious bias behind such stories, but can see nothing marvellous in these. Cobras often take up residence in particular places, and have a sense of territory. Where they have been harried in their grounds, they might well resent further acts of intrusion. This theory could be developed, its limitations defined, or supported in a complementary way, but all theories are idle unless they cover known facts adequately, and can be verified. Little is known regarding the territorial feelings of cobras. King Cobras are said to resent any trespass into their grounds.

Though the vengeance of the cobra is a thing not established, there seems to be no doubt that where they have been treated

with consideration, cobras develop a very tolerant attitude to humanity. In South India there are authentic instances of a householder trusting a co-tenant cobra, instead of seeking to evict it. Such trust, always based on religious sentiment, is often absolute; it is not the cynical trust of the snake-charmer who drapes a hissing cobra carelessly round his neck—after removing its fangs. In certain temples in the south, cobras have free access to the shrine along with the barefooted devotees, and I believe no accidents have occurred so far.

A slim, insignificant-seeming two-foot cobra is a far greater menace than one six imposing feet long, as Major Wall pointed out long ago. The smaller (and younger) snake can move like a whip-lash, and is equally deadly, while the largest cobras move their heavy length at a slower pace, and are easier seen and avoided. It is significant that the resident cobras of pious households and temples are usually snakes of very large size.

Cobras can move very fast, especially when attacking. They will go away, as a rule, if offered an obvious and honourable line of retreat, but will fight if cornered or encircled. The one thing to remember, when going for a cobra with a stick, is that the snake can turn quickly in restricted settings where you cannot. A good hard whack will usually break a cobra's neck and reduce it to a writhing, ineffective turmoil of loops. A number of animals, mongooses, dogs, cats, even kittens, have been known to kill cobras and other poisonous snakes.

★

It is said that more people die of shock and fear than of actual poison in cases of cobra-bite. Being a quick snake the cobra does not bite and hang on, as some vipers do, but strikes and darts away, often not injecting a sufficient dose of poison to kill. Furthermore, the poison-sacs might be depleted by a previous bite at some other creature. Anti-venene is not readily available in many rural areas, and the tourniquet between the bite and the heart, quick lancing of the bite and immediate washing out with a dilute (not concentrated) solution of potassium permanganate all help.

When a cobra's neck is broken, or its head crushed, the rest of its body still keeps writhing about for a long time. Due to the high degree of reflex activity in a snake, where the brain is not so well developed, a measure of "decentralised administration" prevails, and so to reach the state of immobility we associate with death much killing is needed. Fire, by its overall shock, kills snakes almost instantly. I have always held that this empirical knowledge lies behind the superstition that requires every poisonous snake (especially cobras) to be cremated. But only the high-priest who officiates at these ceremonies can tell you the significance of the silver coin that is placed in or near the snake's mouth before it is taken away for cremation.

M. Krishnan

Country Notebook

GAY LITTLE FOX

SO many people mean a jackal when they say "fox"—some kind of a jackal, probably small and furry, and wouldn't it be a sort of reddish brown in parts? They know that the English Reynard does not live here (though its cousins inhabit the Himalayan foothills and sub-Himalayan plains), and that the slightly larger, quite familiar "jack" takes its place in peninsular India. They have never seen the gay little Indian Fox, but have a vague idea that there is, besides the jackal proper, a lesser edition here, which is, very likely, the fox of India.

★

Now, I have nothing against jackals and even think kindly of them at times, but to call the charming Indian Fox any kind of jackal is a slander. Our fox is a true fox, as much one as the English and Himalayan red foxes. Only, it is grey, and much smaller, no bigger than a big domestic cat. In fact, from some distance and in the uncertain light that it likes, one could take it for a well-nourished, somewhat leggy cat—but whoever saw a cat with such a fluffy tail or which was so sprightly!

The little fox lives in open places, in flat country not overgrown by forest or scrub-jungle. All day long it sleeps in its deep, cool earth in the sandy soil, secure from the heat and glare. And at dusk it comes out, and is transformed at once from an inert burrow-dweller into a frisking, puckish thing with a rich, black brush as long as its body and feet that seem to rebound from the air. Its high-pitched, quickly repeated call quivers through the darkening air, announcing its emergence. It takes a good look around, then begins the grim business of keeping its slim body and merry soul together, almost playfully.

★

It slinks along, crouches, pounces, and dances around, chasing beetles, lizards or field-mice. Watching a fox at its hunting, one is more impressed by its lightness of feet and amazing ability to turn at sharp angles at speed than by any serious purpose; but of course it hunts for its living. In a way, a fox is more dependent on its hunting skill than a jackal or wolf, for it does not smell out and feed on carrion or have the aid of pack-mates. However, it is also true that its prey includes things that call for no great effort or cunning in their hunting, beetles, crickets, the teeming swarms of gauze-winged termites issuing from the earth after rains, even melons and other fruit.



It is when a fox is escaping from an enemy that you see how nimble it is on its feet and how masterfully it can jink. No other creature can turn aside from its course, when going all out, with the spontaneity and ease of the little fox, and this manoeuvre upsets the pursuer. Up goes the quarry's big fluffy brush, as the chasing dog bounds in for the finish, and the fox has turned at right angles and gained several yards while the dog is still trying to recover from the impetus of its rush. And thanks to its small size, the fox can dart into any burrow that lies handy, and squeeze through narrow gaps. It is rarely that a fox is overtaken and caught.

★

But however safe it is on its quick feet on the ground, a fox asleep in its earth can be dug out and bagged, literally, in a gunny bag, and sometimes this sad fate overtakes it. Gipsies catch foxes in this manner, then sew up their eyelids and lips, and sell them, half-alive, to superstitious folk. Such barbarous cruelty is understandable at all times, but what makes the practice doubly revolting is the fact that the only reason for keeping the poor captive alive is that an immediate purchaser may not be found, and that dead flesh rots, however potently medicinal its repute. The little fox is not only a charming vivacious and harmless animal; it is also positively beneficial to man. One authority says: "In its consistent destruction of rats and land crabs it does real service to the farmer," and besides these it hunts a good many other small creatures that do agriculture no good. I wish it were possible to get, by some means, effective protection for this useful and delightful creature, but with wild life preservation in the state in which it is now in our country, I can only wish.

M. KRISHNAN.

Country Notebook

FISH-OWLS

NOW that winter has set in, even in the South, darkness comes early, and the day no longer turns to night with that dramatic suddenness beloved of Anglo-Indian writers of romantic fiction. From six o'clock, till seven almost, there is a clear twilight that deepens slowly into obscure night. And now is the time to look for the greater owls, for the cool grey evenings bring them out prematurely.

Our owls do not say "Tu-whit-tu-who," nor mope and complain to the moon—the lesser ones velp, chatter and shriek with demoniac gusto, and the great owls hoot in deep, resonant voices that carry far. None of them, I think, has a voice so unearthly as the Brown Fish-Owl. Soon after it emerges from its daytime retreat, its hollow boom comes floating down the dusk, startlingly sepulchral and near-sounding; later in the night, it sits bolt upright on its perch and chuckles in a muffled, snoring grunt. No doubt this bird is responsible for the evil reputations of certain countryside paths by night.

★

This is one of our biggest owls, dark and mottled, with a heavy cubist build and square, eared head. Its squat, erect silhouette hardly suggests a bird, in poor



light—once, a friend and I mistook it for a monkey slumped on a rock. The fish-owl haunts ravines and watercourses, resting by day in the secret heart of some ancient clump of trees. It is no city bird, but at night it often visits village tanks or sits on roof-tops staring perceptively into the darkness from enormous, round eyes.

The fish-owl is distinguished from the great horned-owls by its flatter "horns" and the fact that its legs are unfeathered and naked. Its feet are strikingly like the osprey's, covered with gripping scales, and meant for the same purpose, for holding slippery prey. However, it does not plunge headlong into the water after fish, but sails over the surface on hushed wings and lifts its prey out. Though it is much given to fishing, fish and crabs and such aquatic creatures do not constitute its sole food. It is known to prey on birds and small mammals, and I believe it occasionally hunts fair-sized quarry, like rock-pigeons.

I used to know a colony of Blue Rock-Pigeons that had their home in a large natural grotto in a river-rift gorge. Almost all the pigeons disappeared from here suddenly, and a fish-owl was seen about the place at the same time. I realize that this is highly inconclusive evidence, and that it might well be that the departure of the pigeons had nothing to do with the entry of the owl on the scene—perhaps others, more comprehensive in their observation, can confirm or dispel my suspicions.

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I know of another instance of a pair of Brown Fish-Owls haunting the abode of pigeons, but am almost sure that in this case the racing pigeons within were not the attraction. The owls used to come and sit on the domed roof of the loft, on a level with my bedroom window, and lying awake I have often watched them flying soundlessly about in the dew-drenched moonlight, returning periodically to the loft. I think these nocturnal fishers were drawn to the place by the small tanks around it. The way they flapped their broad wings rapidly, threshing the cold, luminous air to rise vertically without the hint of a swish, was uncanny; they also used to sail around on spread wings. Perhaps they were courting, if such sapient-looking birds can descend to such frivolity, for they indulged in much pointless flight.

It is said that the silent flight of owls helps them in locating the quarry by its sounds, besides providing a warningless swoop down to the kill. There seems to be much in this, for though they have marvellous sight by the dimmest light, hearing is an added advantage when the prey is in thin cover. Obviously, a bird flapping its wings noisily can hear little besides its own flight, and since all owls do quite a lot of hunting while coasting around, the silence of their down-lined pinions must be of real value to them. Perhaps fish-owls are more dependent on sight than others of the tribe, and that is why they have such big eyes—but it is a mistake to think that aquatic creatures are silent; fish break the surface of the stream audibly, and even crabs can be heard if there is hushed silence all round.

M. KRISHNAN

Country Notebook

MYNAHS EN MASSE



I remember an evening in Bombay, many Januarys ago, when I was shopping in a hurry in a particularly crowded bazaar. The rest of the world also seemed to be in a hurry, and as it grew darker the frantic hustle and enquiries and jostlings of the almost confluent crowd of shoppers drowned even the noise of traffic. But above it all, clear above the confused hubbub of human voices, hooting motors and grating trams, I could hear hundreds of mynahs, roosting close on roof and rafter, telling one another excitedly of the day's doings.

I had seen mynahs roosting in the heart of a city before, in Mysore and elsewhere (I do not know why it is, but they seem to have a penchant for the main bazaar), but nowhere had I heard louder evidence of their vocal superiority over the utmost that man (and woman, even) can achieve.

However, if you want to know how loud these birds can be in company, you should visit the roosting sites of mynahs in the countryside, for here they foregather in larger numbers than in urban places; and with no competing human noises, you can appreciate better the carrying power and fervour of their late evening tumult. About this time of the year mynahs roost together in the countryside, flock after flock coming in from all around to the chosen site as darkness sets in. Our birds are generally more congregational during the cold weather than at other times, from a variety of probable causes—I am speaking of resident birds, of course, and not of migrants. And of course I write of the Common Mynah, the loudest and longest of the vociferous mynah clan, when it really gets together.

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Country Notebook
Shades from the Past

WANDERING around the cage-birds and pets section of a city market, recently, I saw an unusual offer. It was in a flat basket, the open-work lid of which had been partly covered with a cloth, and all I could see was something scaly wriggling inside. I pointed to the basket and clenched my fist in a query, and the dealer, a picturesque

by M. KRISHNAN

Muslim who spoke basic English, was equally concise in reply. "Gwana," he said, and flung the cloth aside, displaying the captive through the grilled lid.

But of course it was no iguana. Iguanas do not belong to our country. What lay coiled within that inadequate prison was an even nobler member of the lizard tribe, a full-grown monitor (Varanus monitor), thick-limbed and big and dark, with a skin over-wrinkled from confinement and lack of food.

Often one feels sorry for the wretched captives at such markets, but especially was I sorry for that lizard. I knew this feeling was illogical, for a monitor used to holes in earth and wood and with comparatively tough sensibilities, probably suffers less from close confinement than other creatures—in any case it would soon have been delivered from its limited life, for few people care for a monitor as a pet and its skin is valuable and flesh saleable. But it was sad to see this robust representative of past glory shut up in a flat basket.

*

In the late afternoons, when my dog was away, the monitor would visit the backyard and hunt grasshoppers among the greens, in the slanting sunshine. I am not unduly imaginative, but watching the outlandish reptile at its hunting took me back to prehistoric times more effectively than any book or museum has ever done. The thick-stemmed greens and rank grasses would become transformed, by the swarthy sinuous present, into a primeval swamp, overgrown with towering trees with green, grooved trunks and tangled reeds. Through this forest the varanousaur sauntered with a ponderous gait, stalking great, armoured hoppers with slow patience, rushing upon them when near in the manner of all lizards.

*

Even in flight from my dog (which could never summon the courage to close in on the monstrous intruder) that monitor had a certain old-world dignity that was impressive. Monitors can move at considerable speed in a flurried, splay-legged run, but when caught in the open, with no cover handy into which it could dive, the lizard would walk away from the dog, retreat-

ing towards the compound wall with many hostile glances thrown over its shoulder, and then it would be over the wall in a dark streak before the enemy could sense flight and attack.

However, I have been repeatedly assured, by gipsies who catch this lizard, that in spite of its undoubted muscular power and inimical looks the monitor is a poor fighter. It has powerful jaws, armed with hard teeth, and can kill rats and snakes, and its heavy limbs end in long, hooked nails that can rip nastily. With these claws it can secure a hold on a rock or uneven wall that the pull of a man cannot shift, and it is said that the Maharrattas used the monitor in warfare, climbing the steep forts of the enemy after the lizard with the aid of a light rope, tied to its loins. But I am told that, when it is attacked, the monitor's first thought is to seek cover, and that it often escapes by the

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The roosting site is often near a piece of water, and while there seems to be no preference for particular trees, I have known a clump of acacias (babool) to be favoured. The roosting trees are usually and fortunately some distance from human habitations, but it requires no great effort or cunning to locate them. All that you have to do is to go out into

(Continued in previous Col.)

(Continued from Next Col.)
the evening and listen. Presently a distant but audible clamour breaks in on you, which gains in volume and clarity as you walk straight towards it.

At no time is the Common Mynah soft-voiced, not even when it is decorously parading your lawn, reducing the grasshopper population. The voice of this bird is naturally robust, and harsh, and it loves to hear itself. But a mynah by itself, or with a mate, hunting prey, is a comparatively silent creature. When the day is done and there is no longer the preoccupation of the chase, when the oncoming night limits conversation to a few brief, insufficient minutes, it is then that the mynah feels the urge to tell its fellows all the news, and to be first with the gossip. Like all good talkers it finds company stimulating. The din at its rural roosts is indescribable.

However, what impresses me at these communal roosts is not the vocal ugliness of these birds, but the thought of the solid good that they must be doing us. They live mainly on insects and worms, and by a not unnatural association of voice with mouth, I have always been reminded, as I retreated from the clamour of the roost and the voices of the mynahs grew less and less discordant, of the untold numbers of harmful insects that go down these mouths each day.

M. KRISHNAN

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All lizards, of course, are representative of this past, when the reptiles dominated life. But our lizards are insignificant little things, all but the monitor which has the size and looks to remind one of that remote age. In its youth it is unimpressive, slim and light-coloured and banded, but it improves with age. A grown monitor is a formidable looking creature, nearly four feet long, with a long, thick, laterally compressed tail and a broad, thick body slung between massive limbs. Its neck is long and muscular, like the neck of extinct reptiles, and the smooth, close-scaled skin forms wrinkles on the throat and sides. Its colour changes to a deep, rocky grey, once it outgrows its banded youth, and the bifid tongue, darting in and out of its straight jaws, is almost black. An adult monitor has the heaviness of build and swarthy, cold, antipathetic looks that are needed to stimulate the imagination.

I remember well a big monitor that took up residence with me for a week, some years ago. I was living then in a ramshackle cottage in a large, oval compound, with a number of sheds on its perimeter. Only a few camel's thorn shrubs and a rocky mound, studded with aloes and cacti, graced the barren grounds and in the backyard there was a patch of neglected greens struggling for existence with coarse grasses. The dragon made its appearance one evening in the woodshed, and apparently it approved of the place, for it stayed on for a week in spite of the frequent chivvying of my dog.



speed of its rush. When it is cornered, it is said to lash out with its muscular tail, and since this can be quite painful, the gipsies say they wait till they can get a firm hold on the offensive tail, when the rest of the lizard becomes quite helpless. There must be much truth in these reports, for I have seen these men handle a large, captive monitor in

this manner, but I know that when fighting among themselves these lizards bite, and I cannot understand why they should be jawless against other adversaries.

I suppose it is the consequence of their ancient lineage; aristocrats are prone to give in when overpowered, with resigned dignity, where upstarts would still squabble.

COUNTRY NOTEBOOK

...Strange Meat...

OVERHANGING the four-foot-high wall that divides my neighbour's territory from mine on the east are two clumps of Thevetia trees, one on either side. Elsewhere, in my modest backyard and in the grounds of other neighbours, are other Thevetias—apparently the tree takes kindly to the hard, clayed soil of the locality. All the year round, with minor rests, the Thevetias bear abundant golden bloom and squat, green drupes; and from ever since I can remember the children of the house have been warned sternly against the accessible fruit, untempting in their greenness but fleshy enough to rouse the curiosity of experimental youth. For though this hardy tree needs little care and decorates poor soil with its close boughs, thick with vivid green, narrow leaves and showy, yellow flowers, it is poisonous.

Every part of the little tree is poisonous, the roots, the stem and foliage, the fruit. I find the following information on its venom in a textbook of medical jurisprudence (of recent date) under the head "Cerbera Thevetia or Thevetia nerifolia", with the aliases "Exile or Yellow Oleander, Pila Kaner": "The plant is highly poisonous and contains an active principle, Thevetin, which is a glucoside. It resides in the milky juice which exudes from all parts of the plant."

The book goes on to say that the roots, seeds and pericarp are used for a variety of lethal purposes, and that the action of the "active principle" is very similar to digitalin, but has a convulsant effect as well. Children have

died from eating the flowers, and the fruit is used for poisoning cattle—the powdered bark is a febrifuge in extremely small doses, but harmful when taken carelessly. I may add, from personal experience, that the latex of this tree has a smarting, not too unpleasant, taste.

But apparently what is poison for one can be meat for another, at least when the other is a bird. For many years I have noticed that Koels, which are plentiful here, have a decided partiality

by M. KRISHNAN

for the Thevetias in my compound. At first I put this down to the effective cover that these trees afford to a bird of retiring disposition. Koels dislike the vulgar, crow-infested open; they skulk and hide in leafy obscurity, secure from the attentions of the would-be caretakers of their progeny—the much-branched Thevetia, bristling with leaves, provides a safe retreat. Later on, however, I noticed that the Koels were pecking energetically at something in these trees. I could not make out just what they were doing, for the trees were younger and less thickly clad, then, and a near approach, however craftily made, scared the birds away.

But I found strong circumstantial evidence: I found freshly broken twigs and drupes, from which the latex was still exuding, in the cover they had just quit. I had seen Koels eating the luscious, blood-red fruits of the *Cephalandra indica* with quick, violent pecks, tearing the creeper in their hurry, but I could not understand why they should peck at the poisonous fruit of the Thevetia or break its green twigs, with no nests to build even. Only last month did I discover the truth.

Late last December, and again early this year, I watched Koels eating the fruit of the Thevetia from close range. Crouched in the shade of the compound wall and with my head screened by foliage, I was able to observe the birds at their repast from just two yards away. On the first occasion a big, mottled hen Koel was in the tree, slinking and sidling along the branches with frequent glances all around, in the furtive manner of its tribe. For a moment its ruby eyes met mine squarely, but perceived nothing, and soon the bird was busy with a drupe. It dug into the fruit with sharp jabs of its bill, and tore out a piece of mesocarp, dripping latex, which it swallowed with an upward toss of its head.

The second mouthful, torn out with a hard, sideways jerk of the head, detached the rest of the fruit from its stalk, and it fell unheeded to the earth. During the two or three minutes that I watched this bird it took half-a-dozen mouthfuls of the fruit and felled three fruits, breaking a slender green twig as well in its avid haste. Then it flew away quite suddenly, alarmed by something that escaped me, probably by me in spite of my rigorous immobility. I inspected the fallen fruit. The jabbing bill had reached right down to the kernel, and dug out the pieces of fleshy mesocarp in a few strokes.

The second time it was a slim, glossy-black cock, and it behaved in an identical manner, except that it flew away sooner and after eating only two mouthfuls of the fruit. I have not seen any other bird or beast eating the drupes of the Thevetia, nor have I heard of it. The pericarp is definitely harmful to men and cattle. How is it, then, that the Koel consumes it so zestfully? Frankly, I do not know the answer to this question, but it seems reasonable to suppose that they have some special immunity from the action of Thevetia.

Mixed Diet

DURING the past month I have again observed koels eating the poisonous fruit of the Thevetia, quite half-a-dozen times. I can add little to my earlier report on this strange addiction (Country Notebook for February 3), but they seem to choose ripe fruit invariably, fruit that get detached from their stalks easily, after two or three pecks. Ripening is a process that involves chemical changes, and it is possible that this alters the proportion of the poison, Thevetin, in the pulp; but this cannot quite explain koels consuming these drupes with avid desire, and no subsequent regrets.

★

I have not seen any other bird or beast evincing the slightest interest in the fruit of the Thevetia during this month, when I watched the trees more narrowly than usual, but an observer (whose interest was stimulated by my record of koels eating the drupes) tells me that he saw a

by M. KRISHNAN

Common Mynah pecking at one of these fruit on the ground. The fruit was brought to me, and showed beak-gouged holes, but since koel-pecked fruit fall to the ground with similar marks, this was not conclusive proof. However, the observer tells me that he saw his mynah peck at the drupe several times, and eat pieces from it. I intend no sort of scepticism, but would like verification of this instance; perhaps some reader can provide it.

The squirrel's diet is a topic that goes back to my childhood. There was a smug squirrel, sitting up with a fruit in its forepaws, in the primer from which I learned my Tamil; it stood for the first letter of the alphabet, and





(Continued from next Col.)

white-ants are a menace where I live. That evening I saw two squirrels feeding off the new-formed store. They broke the crust of earth with repeated shoves of their noses, and licked up the termites as they tumbled out of their roofless homes. There was a methodical lack of haste, almost a rhythm, in the termite-eating of those squirrels—they demolished a few square inches of the crust, then stopped to feed, then extended the breach. But after a while they seemed to tire of this slow repast, and scampered away. I saw them next day at the termite-crust, and again a few days later. In a week they had almost demolished the entire patch, but there were tunnels and thick areas beyond their noses, and I left nothing to chance. One cannot afford to, where I live.



Incidentally, I heard squirrels calling at noon—a long, sustained “cheep-cheep-cheep”—to one another in the first week of March, and also heard the monotonous, ceaseless “tonk” of the copper-smith that day. Summer has officially arrived in these parts, somewhat prematurely, as it has in many other places.

was wretchedly drawn. From this book, and its successors, I learned that the squirrel (I mean the common, striped squirrel that enters our homes and lives so freely) is a harmless, lovable vegetarian that lives on fruits and nuts. Nurtured on this sort of natural history, I received a rude shock when I discovered (in my boyhood) that squirrels would eat eggs with relish. I need not have felt so perturbed over this unnatural lapse from vegetarianism: there is a large section of humanity that considers eggs vegetable.



Years later, while trying to grow maize in my backyard, I found out the truth about these squirrels. They have a fiendish passion for sprouting corn, and will dig up and savage several rows in no time. Enthusiastic horticulturists can provide a list of rare buds and growing tips especially fancied by these vandals.

However, recently I noticed a redeeming feature in the diet of these rodents. Some weeks ago a long patch of earth made its appearance on the brickwork of my verandah wall. I resolved at once to demolish it next day, for

(Continued in previous Col.)

COUNTRY NOTEBOOK

Freebooters Of The Air

by M. KRISHNAN

WATCHING India's first historic Test victory over England, along with a huge holiday crowd, were a dozen kites. They had followed the game with unrelaxing eyes over the previous three days, and I knew some of them by the close of the opening day.

One had two forward primaries missing from each wing, one had a squarish tail, a kite was exceptionally light in colour, a bleached golden brown, another was almost black in its swarthy new plumage, and there was a bird that had lost the entire tail quite recently. I was amused by the vigilance of these birds, patrolling the sky above the ground. Whenever drinks were brought out to the players, the air over-

ously at his neighbour's loss, only to have his own bread snatched the next moment—the sheepish smile on his face was worth going a long way to see.

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Looting kites are quite a feature of our Bazaars and city markets and I know a restaurant in a park, in the heart of a big city, where these birds have grown so audaciously slick that habitués prefer the dull tile-roofed verandah to the charm of repast in the open with colourful shrubs around and grass underfoot. These freebooters of the air come a close second after crows in the list of urban fauna, but there are kites in the country too.

There, with no meat stalls and crowded eating-houses, kites work harder for their living, and are

stabbing beaks or long, wading legs, other specialized features or at least the boldness to plunge headlong into the water. Elsewhere, I have seen kites chasing maimed quarry or flapping heavily among swarming termites, which they seized ponderously in their grappling-hook feet.

★

Once I saw a crowd of kites on the ground, in a forest glade. They had feasted with the vultures and were preening themselves after the glut, before roosting. And once I saw a kite hopping along the grass gawkily in the wake of grazing cattle. Hunger had driven that bird into a fresh inroad on the path of degradation, but apparently a kite on terra firma can only lose its balance when it tries to clutch with one foot at ebullient grass-hoppers.

That is just as well, for these birds have sunk sufficiently low. They are so common that we do not notice them, and when we do the occasion is often too annoying for us to appreciate their air mastery. Swifts and falcons are faster and more dashing, vultures more effortless in their soaring, but for sheer manoeuvre on spread wings the kite is unbeatable. No other bird has its slick skill in theft—its noiseless descent on the unsuspecting victim and grab with a comprehensive foot. The kite has a strong hooked beak, and a powerful build—it is surprising that it has not developed, beyond petty theft, to thuggery and murder, with its equipment.

But perhaps that, too, is just as well. Those who raise poultry have no love for this bird as it is, and if it took to a more adventurous and violent way of life, the hand of everyone must be against it, in city and in village. And that would be a small waste of national energy, considering the kite population of our country!

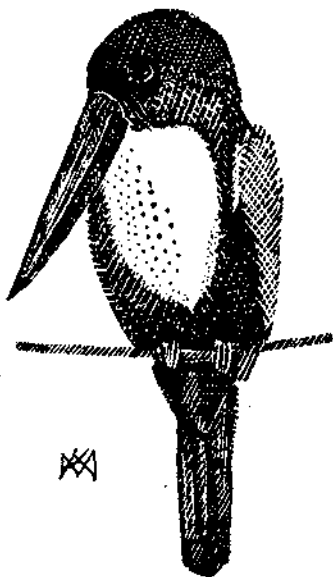


head was suddenly thick with kites, swooping and circling low for a minute before sailing away disappointed. During the breaks for lunch and tea there were opportunist scrambles, some birds alighting on the grass to consume scraps thrown aside by the crowd, others flying away with the booty. Quite a few of the spectators, discussing the happenings and prospects excitedly, had the hurried morsel expertly plucked from their hands. Especially was I amused by a sandwich-eater who laughed uproari-

far less offensively familiar. They take to scavenging for their food, a more strenuous and less fashionable profession than picking pockets in cities. And in the remote countryside I have known kites actually hunt their prey.

I know a lake in such a place where I have seen kites fishing. They sail low over the water and clutch at the slippery prey on the surface with their talons, often without success. Here they are awkward apprentices in comparison to the many expert fishermen around, birds equipped with long,

Country Notebook



THERE are three wells around my compound, just outside, in the territories of neighbours. The brackish water deep down in them is not potable, but my neighbours use it for their kitchen-gardens. They have dug irrigation channels from the wells to the plots of vegetables, with steep earth banks and miniature dams to regulate the flow of the precious fluid. Frogs, tadpoles, water-boatmen, mole-crickets, and a variety of worms, grubs and flying insects inhabit this region, and recently a White-breasted Kingfisher has taken up residence in my backyard from where it can command a comprehensive view of the aqueducts.

It has many perches here, and shifts from one to another, but its favourite seat is at one end of

by **M. KRISHNAN**

a clothes-line, in the shade of foliage. It sits inert and slumped and seems wholly lost in moody introspection—but in fact it is watching for signs of lesser life in the inundated field of its vision. Other birds that sit up for their prey adopt a similar attitude in vigil, rollers, bee-eaters, buzzards. The concealing value of such repose is obvious even to colour-sensitive human eyes. I have to look about me to locate this kingfisher in spite of the dazzling contrasts of maroon and blue and white in its plumage. Vivacity, even a perky stance, undoubtedly catches the eye; our dusky robins prove the truth of this.

This kingfisher has little fear of men, or else it is so absorbed in its watch for small fry that it

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Country Notebook

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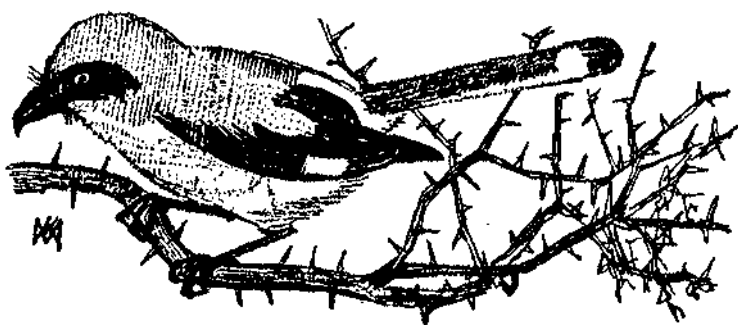
does not notice my ponderous approach. If I do not make straight for it but observe a certain circumspection and silence, I can get to within three yards of its perch without alarming it (incidentally, what matters is a slow approach without jerky movement rather than silence—the bird seems indifferent to my whistling). It is then that I see how brilliantly it is coloured, and that it is wide awake for all its slouched stillness.

I venture too near and it is away in a vivid streak, with a harsh cackle. The great sword bill, sheathed in immobility and shade when the bird is sitting, flashes redly ahead in flight, followed by the blue and white of wing and tail. It flies straight to the well beyond the compound wall, then dips sharply and alights on the well-post, and is once more lost in dejected reverie.

The Government, trying to induce the rice-eating peoples of the riceless South to sample other grain, could well adopt this bird for its emblem, for it has renounced the limited diet of its tribe and taken to more varied and cosmopolitan fare. Its build is the build of a kingfisher, and its great bill is the authentic implement of a fishhunter, but hundreds of generations ago it grew independent of pool and stream and finned prey, and often it lives far from water. It feeds on any small thing that it can seize in its big bill and batter to death—lizards, insects, grubs and worms, tadpoles, even fish on occasion. In summer it haunts the vicinity of wells, not for the sake of the fish in them, but for the creeping and crawling life that the moist earth attracts. During the monsoons, when the water stagnates in roadside ditches and daps, I have often seen this bird fishing for tadpoles and minnows in the puddles—but the monsoons have not often been with us lately. The five successive years of drought that have afflicted this area must have fixed the tendency to hunt land-living prey even more firmly in the White-breasted Kingfishers here. This is the only Indian kingfisher that has developed this terrestrial bias, but in Australia there are kingfishers that have forsaken the water even more completely.

There is one peculiarity about this kingfisher that I have noticed, and that I am quite unable to explain. Sometimes it flies into limited settings, into a room or verandah or shed, and then it seems quite helpless and flutters weakly about, suffering itself to be caught where other birds would have escaped with ease. So weak is it on the wing then, so torpid and slow, that it seems acutely ill, or else quite dazed. I have caught White-breasted Kingfishers in this way thrice or four times, and I have known others catch the bird in similar circumstances. It lies unprotesting in the hand, and the amazing lightness of the bird (birds are much lighter than we think) lends further probability to the feeling that it is very ill—but toss it clear into the air, and it flies briskly away, to resume its hunting. This kingfisher nests in long, narrow tunnels in the earth, and one would think that it is used to restricted spaces. Perhaps it is sudden fright, at being cornered by men, that is responsible for its lassitude on such occasions.

... Grey Shrike ...



I have just returned from a drought-stricken suburb, where only the tangled grey of spiky shrubs relieved the flat, baked brown of the landscape. The trees were few and far between, the grass was withered, and such life as there was clustered, open-mouthed, around a few deep wells. Even the crows and goats seemed reluctant to leave the delightful shade of the village neem trees, which were in flower, but walking across the desiccated open I found a drier life in possession. Brown grasshoppers rose from the brown, sparse grass underfoot, there were finch-larks in the fields, blood-suckers ran splay-legged to the cover of fences at my approach and, at long intervals, big Grey

than other birds that watch for their prey from a perch and pounce down on them.

Such birds usually hunt insects or other small creatures, but occasionally they tackle more substantial prey, weak enough to be overpowered but not sufficiently small to be swallowed in a mouthful or killed at once—nestlings large insects with tough shells, or lizards. Birds better equipped for rapine, sparrow-hawks for instance, can kill sizeable prey quickly, but shrikes have to use much force to still the struggles of their occasional large victims, and there is no question of cruelty or blood lust involved. In fact, far from killing madly in excess of their needs, shrikes have developed the prudent habit of impaling surplus catch on thorns, against a rainy day, and it is from this peculiarity and not from their murderous violence that the name "butcher birds" has come to them.

By

M. KRISHNAN

Shrikes sat austere on the bush tops, very much at home in that desolate setting.

A pair were together, from which I concluded that these stern birds had weakened already under a seasonal urge. The Grey Shrike loves its own company, and keeps relentless vigil over its territory, allowing no kith or kin to violate its privacy. But when summer comes spring is not far behind, and for a while it relaxes its strictness and suffers a mate. It sings a sweet, tinkling song then that no one would expect from its looks and habitual, harsh laconism; but even then it is not given to flutterings and fluffy displays; it comports itself with a dignity and restraint exceptional in the love-silly world of birds.

★

I have always thought this shrike one of the most aloofly distinguished of our birds. There is the hint of silver in the grey of its plumage, and the big, square head, the top-heavy build, the heavy, hooked bill and broad, black eye-stripe all convey not only the suggestion of formidableness but of severe dignity as well, a suggestion that its love of thorn-scarred wastes and its unsociable habits confirm. Other shrikes that live in somewhat similar places have similar natures, but somehow the tribe has earned for itself an undeserved reputation for blood lust.

These are the "butcher birds", a tribe repugnant to the sentiment of Western writers of popular natural history. Quite recently I read an American description of a typical shrike, where the bird was damned with all the lurid exaggeration that the writer could command, as a kill-crazy, callous, bloodthirsty murderer that lurked in bushes and throttled innocent little birds. I have never been able to understand the importing of human concepts of virtue and morality into a study of natural history, in all seriousness, but even granting that this is good form I cannot see how shrikes are any the more bloodthirsty.

Incidentally, I have never seen the Grey Shrike's larder in the warm plains, though I saw a lizard neatly impaled by one of these birds in a hill station. The number of things I have not seen are very many, and proves nothing, but is it possible that in the hotter plains, where putrefaction is rapid, shrikes are not much given to stocking larders?

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GREY NECKS... by M. KRISHNAN

CROWS are sitting in pairs on treetops, late in the evenings. They choose a foliage-free bough, high up, and for an hour before dark they sit close, indulging in caresses with their bills and saying low, sweet nothings to each other (of course crows have a language—Seton claimed to know a bit of it!). I have seen dozens of these courting couples in the past week, and there is no doubt that the local grey necks have exchanged a communal life for a connubial one. Shortly they will nest, and rear their young, and the young of the Koel, with loving care—incidentally, I have yet to hear Koels here (where they are plentiful) in spite of the premature onset of summer; apparently their love follows the love-life of the crows.

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The grey-necked House-crow is the commonest bird of town and countryside, and so varied in habit and intelligence that it is always interesting to watch. More than one observer of Indian bird life has devoted an entire book to it, and still how little we know about it! Does it pair for life? Nothing definite seems to be known on this point. The one sure way of finding this out would be to ring a number of crows with distinctively coloured rings, and watch them over years—strong metal rings would be needed, as these birds have powerful and clever beaks and will peck at and remove rings made of celluloid or similar material. Both birds of a pair must be distinctively marked—I used to know a white-flecked crow and watched it nest in successive years, but could never be sure if its mate was the same each year. Grey necks live in a flock in the off season, when not nesting, and roost in company. It may be thought that this sociable winter habit would be conducive to promiscuity in pairing when the breeding season comes again, but this need not be so—there are

monogamous birds with a gregarious habit.

One thing I am fairly sure of, after watching House-crows and Jungle-crows for years, is that the former are far cleverer on the wing. They are less clumsy in build and movement, though less powerful, and on the whole I think they are more intelligent than their jungly cousins. It is in flight, however, that their superior skill is obvious. When the termites swarm and both kinds of crows are feasting, the grey neck's comparative air mastery is clear.

A House-crow will shoot up



from its perch, chase a fluttering insect on quick flapping wings, and take it surely—it is more given to hunting winged prey in this manner than most people think, especially in the fading evening light. Moreover, some grey necks are noticeably more expert in this art than others. Recently I had occasion to verify the truth of this.

I was sitting at a table in an open-air café on a beach one evening, and was offered a plate of "chaklis"—which I thought unfit for human consumption after sampling. After my usual thrifty habit, I looked around for non-human habitués to whom I could donate the burnt, twiggy, garlic-spiced dish. There was a thin dog with soulful eyes watching me, and further away there was a pair of casual grey necks, ap-

parently more interested in a tête-à-tête and the seascape than in me. I turned my back on the dog, for I find yearning canine eyes beyond my will power, and tossed a bit of the "chakli" into the stiff cross-wind. The crows jumped into the breeze and one of them caught the morsel deftly in its beak—they never take things in the air in their feet—and swallowed it in mid-air. I tossed another bit high, and, as if by magic, five crows shot up after it.

Presently there were well over a dozen grey necks. I kept on tossing the twiggy inducements into the breeze, and when the plate was empty I ordered another. I learned much from this brief spell of flighted offerings to the crows. In spite of their packed numbers, they never collided in the air, and only once was one of several fragments thrown up together allowed to land. One crow—I am certain of it as I never took my eyes off this bird—was far cleverer at the game than the rest—its interception of the parabolic trajectory of the morsels was sure and easy. It did not swallow its first catch, but went for the next bit as well without dropping the first one, repeating this astounding performance till it had four bits crosswise in its beak. Then it was forced to retreat for a brief spell of swallowing.

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All the crows there were grey necks—Jungle-crows don't care much for the strong cross-wind on the beach. I would much have liked to prolong this tossing experiment, but when the second plate of burnt offerings was finished I noticed that everyone in the café, including the waiters, were staring at me in undisguised amusement, and this forced me to call for my bill and leave in a hurry. Perhaps, some other day when I can summon a less self-conscious mood, I may complete the experiment.

COUNTRY NOTEBOOK

The Sea-king's Eyrie

HIGH up in a towering casuarina, a hundred feet above the ground, the sea-eagles had built their ponderous nest. It was wedged firmly into the trifid, ultimate fork of the trunk, a firmly-knit stack of thick twigs and dry branches, looking more like a pile of faggots than anything else. It was hollow on top, though I could not see the depression from the third-storey terrace of the building from which I watched, for the eyrie was well above the level of the housetop, but the way the big nestling disappeared from view every time it waddled to the centre from the rim of the nest showed a hollow.

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The sea was not a mile away, perhaps not even two furlongs by air. One of the parent birds mounted guard on the treetop, a few yards from the nest, while the other sailed away on a foraging expedition. These were



took care to do my watching from the shelter of a pillar or the parapet, not too obviously.

Off and on, for a fortnight, I watched these sea-eagles, and learned not very much about them. One of the adults was slightly the larger; I thought this was the she-eagle. This one it was that stayed near the nest, watching, most of the time. Much of the scouting for food, for the entire family, fell to the lot of the other eagle. Sizeable fish seemed to form the staple diet, though once the forager re-

in hackles. The body was a dark, mottled brown—the colour one associates with raptorial birds. This fledgeling progressed rapidly during the fortnight, and when I saw it last (on May 1), it was standing on the edge of the nest-platform and flapping its wings gawkily, though it had not yet essayed flight.

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The food-laden return of the parent bird was the signal for crows to gather around the nest, or fly over it. Not once did I see them profit by this watchfulness: they never dared to get on to the nest, to try to snatch a morsel, though they would sit all around, close by in the tree. At times one or the other of the adult sea-eagles would leave the nesting tree and sit in a neighbouring one (also a casuarina), and when this happened the crows mobbed it immediately. Apparently, away from the location of the nest, they were not afraid of it. Frequently they forced the big bird to take wing and fly away from their attentions, with a harsh, metallic, reiterated call, but once I saw the eagle dive at two crows that were annoying it and send them scattering for dear life.

*

by M. KRISHNAN

White-bellied Sea-Eagles, almost as big as a vulture and much more shapely in build, with slaty-brown backs, the head, neck and under-parts white, sail-like wings broadly edged with black, and a short, fan tail. The adults looked strangely like overgrown gulls, the grey and white in the plumage and length of wing suggesting a gull, but they sat in the manner of eagles, upright on the treetop, talons gripping the bough firmly. The wings projected beyond the brief tail in repose, their tips crossing.

Through my binoculars, the bird was startlingly near and clear; I could see the grey, hooked beak, the powerful talons, even the dark, apprehensive eyes. It was watching me intently, with obvious distrust. Thereafter I

turned with a long, dangling prey that looked like a sea-snake—but probably it was only an eel. The grown birds fed by turns, after parting with a large piece to the offspring. There was a patrician lack of haste about the feeding and flight of these eagles that was impressive: who would believe that it is these same birds that flog the air above the sea with untiring wings and chase each other in giddy flight, clamouring raucously all the time, earlier in the year!

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The youngster was about three-quarters the size of its parents, and much more cognizably eagle. The feathers on its head and neck were not white and sleek as in the grown birds, but streaky, pale brown, and they stood out

I was told, by the gardener of the house, that these sea-eagles had nested here for years, that every year they reared their progeny on this same nest, that he did not know what happened to the youngsters when they grew up but that the old birds remained there right through the year. The nest looked as if the accretion of many years had been added on to a structure that was originally no small thing. We estimated that it was a rounded cube, about four feet each way. Even allowing for interspaces and the hollowness of its top, it must have contained over a hundred sizeable pieces of wood, and have weighed about 200 lbs. How did these seafaring birds acquire the large, dry branches that formed the cross-beams of the eyrie? Did they pick them off the backwaters, or did they wrench them clear from greenwood, as Jungle-Crows do? I cannot answer these questions, or find someone who can, but it seems reasonable to suppose that much of the nesting material was, originally, floats.

Country Notebook

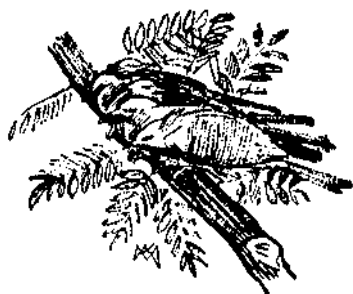
SLEEPING BIRDS

THE cyclone that visited the southern coastline recently announced itself with a sudden storm past midnight. Continuous downpours followed, and fitful gales at intervals, but it was the initial storm that caused the most damage.

The morning after, I went around in the thick grey rain, looking for signs of how the lesser life had fared. There was nothing on the roads except the litter of wrecked trees: whatever had been drowned had been removed by the turbulent drains. But nearer home I found strange sights. Two crows were roosting on a bracket beneath my neighbour's terrace eaves, fast asleep at 9 a.m.! Their slumped, almost confluent bodies and bedraggled plumage suggested a rough time in the stormy night; perhaps they were a nesting pair that had found refuge from the elements at last on that bracket. And on a *Gliricidia* bough in the shelter of my own roof I saw something I had never seen before, five White-headed Babbblers huddled in a row, like birds in a Japanese woodcut, sleeping in exhaustion. That morning I observed more birds sleeping than I had ever before, some of them so heavily that I could have reached out and grabbed them had I wished to.

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Birds and beasts, of course, need sleep just as we do—like love and hunger this is one of those deep needs "that makes the whole world kin." But their sleeping habits may be very different from ours, governed by different periodicities and conditions. Roosting birds like company—it is thought they find a measure of safety in close numbers; many animals sleep on a full stomach, ignoring the maxim "After supper walk a



mile," and almost all have widely different views from us on bedroom ventilation. What interests me is not their diverse habits of sleep so much as the question, does sleep come to them with sensations similar to the ones we feel? Any answer to this must be highly speculative, but even to indulge in such speculation we need to know quite a lot about how animals drowse and how we do—and how little we seem to know about our own repose!

Sleep can be an intensely beautiful experience. Others may think me naive, but it is the most complete bliss I have known in life, more rapturous than love, more deeply satisfying and exquisite than the slaking of a long thirst or childhood discovery of Turkish-delight. It is the only sensual joy to which a man can abandon himself utterly, without self-conscious effort or any vague qualms of guilt or gluttony. And still there are people who do not realize the joy of sleep—perhaps because they woo it with pills and potions or take it too much for granted. Searching through anthologies for some passage that will express what I wish to say, I can find nothing adequate in English literature! Wordsworth's sonnet is insomniac, Coleridge too insistent on comprehensive simplicity, and even Shakespeare's celebrated lines seem too pat and encomiastic. It is with scientific unawareness of the bathos of my attempt that I tell you of sweet sleep.

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It is not of the healing void of slumber that I write, but of its analgesic, sharp brink. On this thin rim, at times, the senses are clarified remarkably—the normal perceptions are inspissated, and a volatile consciousness that is objective and all-absorbing covers their thick residue. It is then that sleep is wonderful. One is no longer aware of tired, aching limbs, and sounds and smells that are utterly lost on one when alert and visual come through with delightful ease. I think one must be dog-tired, physically, to attain this state, but perhaps I say this from an idiosyncrasy.

The commonest sounds are refined, soothing and clear just before sleep drowns them—the cawing of crows (everyone who has had a siesta in India will know just what I mean), the far-off bark of a village dog, the creaking of bullock carts. I do not mean just this, but the increased acuteness of perceptions that supervenes, at times, just before sleep, when the faintest of smells and sounds is clear and identifiable, and there is a certain selection of them from out of the much louder normal noises of the environment, which are not heard at all. I do not know if you have had the experience, or if I seem just wildly incomprehensible. I can only say that there is such a superfineness of sensibilities, in sleep, that is occasional and therefore unreliable in men. Some-

by

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times this seems to subsist through sleep: I have jumped up wide-awake from sound, fatigued slumber, hearing some slight but unusual noise.

I do not know what senses are acute in a sleeping bird, but in most mammals the ears seem receptive, half-awake, in sleep. I can say nothing positive on this issue, but a series of experiments I made with sleeping dogs suggested that dogs are less quickly awakened by smells and sudden changes of lighting than by sounds, and earthquakes sensed through the body. The only other creatures whose tired-out sleep I have studied are pigeons, and they too seemed sensitive to sounds. Perhaps some one of my readers, who is a wild-fowler and has tried to steal up to duck asleep, can tell me what it is that invariably wakens them in time.

The Fastest Thing On Legs

by
M. KRISHNAN



I REMEMBER watching a display by India's first jet-propelled aircraft, along with a milling crowd. There was a little boy by my side who was most informative—he told us the difference in flight and motive power between these planes and the ordinary ones with propellers, pointed out peculiarities in design, and explained the relative speeds of light and sound to a dear old lady. Thanks to this young scholar we all knew at what speed the jet-fighters tore through the heavens, looped loops, and zoomed high again, and I joined in the general expression of wonder and applause.

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But now, well away from that little boy and that arithmetically-minded crowd to whom 600 m.p.h. meant so much, I don't mind confessing that I was not thrilled, specially. Yes, it was fun watching those planes perform their evolutions, and no doubt they were faster than the ones I had seen before, but they conveyed no sense of magnificent achievement of space to me. For one thing, their speed, as they went far above, was an abstract thing that needed thought, even sophistry, for its appreciation; and even when they came near and were patently dynamic—well, they were engines, just big, loud engines, and their power and speed was mechanical, chemical, inhuman.

It is the living, muscular speed of animals that impresses me, even a squirrel making a dash for safety. That is a speed I can appreciate, a quickness I can envy and marvel at. If you like speed, and want to see something sustained in its effortless, rhythmic impetuosity, you should watch a herd of black buck going all out for a few miles—there is tangible, real speed, for you.

Black buck are the fastest things on legs in India, and perhaps anywhere in the world. As Dunbar Brander points out, the now extinct hunting leopard even cannot match the buck for speed, for though swifter from a standing start and for the first few furlongs, the hunting leopard is purely a sprinter and soon gets spent.

Black buck can keep up their pace for 10 miles or more and when going flat out can attain 60 mph—a superb speed, not reached by any motor vehicle so far over the ground which they inhabit. The muscles of a buck are like cata-

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pult rubber, and its hooves are not hard but elastic, its wind is almost inexhaustible and its vitality amazing.

No other animal I know of can keep going with such ghastly injuries, not even the greater cats. In particular I recall a gravid doe (does are usually faster than their overlords) that had lagged behind, and had a leg blown clean away by a bullet meant for the buck. The gun and I got into a jeep and went after the wretched thing, to put it out of its misery. The black-cotton soil was very flat, and permitted a fair speed, but for two miles the crippled doe kept running far ahead, while our pity turned to wonder and admiration, before it fell exhausted and was shot.

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These buck have a curious habit that is often their undoing. After outdistancing the chasing enemy easily, they turn at an angle and run across the path of the pursuer, so that by anticipating the move and changing his direction slightly the gun can frequently get to within range, as they cross in front. Dunbar Brander suggests that this habit might be due to a desire on the part of the buck to prove that they "have the legs of the enemy". Quite a likely explanation, but at times I have seen chased buck turn, not across the line of pursuit, but away from it. They seem to run in a curve, once they are clear of immediate danger, and they persist in their curved course once they are set on it. Naturally, this explanation leads to the question:

why do they have this habit of running in a curve? That is a habit also shared by certain other animals, and a circuitous explanation occurs to me—but let's not have it.

Black buck are unquestionably among the most beautiful of the world's beasts, and are exclusively Indian. Once they lived in vast herds all over the country, but are fewer and more local now. In certain places, in South India for example, they are dwindling steadily and must soon be extinct unless immediate help is afforded. It is true that the slaughter of buck by "sportsmen", irrespective of sex, numbers, or laws, is largely responsible for this dwindling, but there is a more pernicious though less immediate cause. Black buck live in open country, always, and such terrain is most easily cultivable and, so, most cultivated. Buck do not take to desert conditions: they must have green fodder. A substantial part of their diet consists of grasses and plants like the wild bitter gourd (whose fruits they love), but living in the midst of crops (their original homes having been brought so largely under the plough), they often help themselves to food crops. This, while providing a ready excuse for shooting the crop-raiders, leaves them with nowhere to go. The animals of the open will, I think, be the last to receive any recognition from those interested in the saving of our wonderful, vanishing wild life, one of our richest national assets.

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The fauna of flat country require plenty of living space, adequate grazing, and a certain remoteness from cultivation if they are not to be tempted. These conditions are unlikely of realization in India today, when every acre of land is held precious, though sometimes left fallow and often so poorly tended that it yields a negligible return. In any case, I think the beasts and birds of open country must look to the black buck for their salvation, for it is the one claimant for protection among them whose arresting looks and swift charm might succeed in attracting notice.

Date With A Bear

ALL this was in July last. When I joined the camp for bear at hilly Mukumpi, the monsoon had arrived already. Every evening there would be whirling winds, then drenching, disheartening rain until midnight that made the return home over-wet, slippery boulders a risky adventure. Mornings were spent in reconnaissance, trying to locate the haunts of the bears from their startlingly human tracks in

the soft, impressionable earth of the fields. There were many bears, but they seemed to have no favourite routes from the hills to their nocturnal feeding grounds. After three evenings of futile sitting up beside likely paths, we decided to concentrate on just one bear, a large, pious bear that was much given to visiting a remote Hanuman temple.

This was said to be the biggest of the local bears. The temple was on a hillock in the heart of the jungle, and occasionally visited by devotees, but the bear seemed a "regular." The rocky ground, with wiry grass where there was soil, gave us few defined footprints, but where the bear had crossed a nullah we saw its spoor—and there could be no doubt about its size.

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What brought the big beast to the temple so faithfully each night was the smallest of inducements, tiny bits of jaggery or rancid copra (left behind as offerings) once in a blue moon, and the oil smeared on the image of the god. I could hardly believe that a lick of oil, or a rare fragment of jaggery, could promote such punctilio in a bear, but the evidence was conclusive. The broad, blurred imprint of its haunches on the flat slab in front of Hanuman showed where the bear had been sitting for a long while, probably exploring

each interstice in the bas-relief with its tongue, for oil, and fresh clawmarks on the rocky soil, told their own tale.

There were three deep gashes across Hanuman's cheek, unmistakably caused by melursine claws (I am writing of the Sloth Bear, of course) and I was puzzled by the ease with which the bear's claws had grooved the rock till I took out my jack-knife and tried it, furtively, on the image. My knife cut through what I had thought was sandstone as if through stiff wax: the images in the shrine had been carved in low relief, then finished with a stucco consisting of some local ochre and oil, the raised details on face and figure being largely in stucco. I was told that these details were renewed, periodically. That explained why the bear licked the image so assiduously, for the oil in the stucco could not be sucked out or bitten off.

Sloth Bears work hard for their living, and it is well known that they take elaborate pains to secure some titbit, ridiculously out of proportion to the effort involved and their size. They will dig two feet through hard soil to get at a grub that their exquisite noses have located, and wander all night in search of berries. So, on consideration, there seemed nothing strange in the regularity of this temple-loving bear.

Our shikari was dead against



too obvious baiting for he rated the intelligence of these bears highly, and apparently this one was the grandfather of all bears. We left a few small pieces of jaggery strewn with artful carelessness about the shrine, and poured a little oil into a hollow in the stone steps, but that night a downpour drowned our cunning and washed our offerings clean away. Next evening we left the jaggery inside the shrine, and smeared the oil on the image of Hanuman, with better results. It rained that night as well, but this had not prevented the bear's visit, and in the morning we found the image licked dry, and a few pieces of jaggery gone, though the bear had had misgivings over some other pieces.

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That night we sat up for the beast, after studying every precaution. We chose a natural alcove in the rock, facing the shrine, sheltered from rain and shifting winds, and were in place before sunset. About 10 o'clock, through the swish and patter of the rain, we heard vague sounds as of some large animal moving, but though we had a powerful flashlight we did not use it, for it sounded too far away, and right behind us. It was clear from the tracks, in the morning, that the bear had come up behind us, and had halted about

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thirty yards away, before retreating.

There is a theory that Sloth Bears are near-scented, and that while they can scent and locate a beetle's grub a yard underground, they do not smell danger when not too close to a man, the wind being "wrong" for them. Well, I can only say that our experiences at Mukumpi did not confirm this theory. Bears there seemed to have an uncanny ability to smell us out from afar, and I am even prepared to believe that this one scented us through solid rock from 30 yards away. We kept quite still and there was no question of a gust of wind carrying our scent towards it—still, it had been alarmed.

We baited the temple again next evening and came away, and sure enough the bear came that night and took our offerings. We sat up next night, and about midnight we returned home, sure that we had heard the beast come up and then go away. Next day we found that the bear had revisited the place after our departure, and spent quite some time inspecting our alcove. It had left behind a token of its contempt for us. Our shikari assured us, solemnly,

that the brute had deliberately intended insult.

I will not tire you with a recital of our further failures. Somehow that bear knew just when and where we sat up for it, and when we were not there. We did not even get a glimpse of it once, but we learned some interesting details of the conjugal habits of bears from the local worthies. They had even the legend about amorous old male bears carrying off village belles to their harems—a legend that interested me especially as I had heard it elsewhere, and was curious to know why bears of all beasts, (so horribly manlike when skinned), should be credited with this liking for comely young women. None of the natives could enlighten me on this point, but our shikari remarked, ungallantly, that the bears that had abducted the local maidens deserved sympathy rather than retribution, for there could be little doubt they had let themselves in for a rough time!

You may ask: why the triumphant headpiece for the account of unsuccessful trysts? That was drawn from a bear, just out of its cubhood, shot almost entirely by accident, and does not belong here at all—which is just why it is here. It shows the almost human soles of the hind legs clearly, and provides this note with the necessary bear.

COUNTRY NOTEBOOK

The Vanishing Bustard

RECENTLY I read a book on the common game birds of West Africa, and was surprised to find quite half-a-dozen bustards mentioned. I could not help comparing our one bustard with these exotic cousins, and pondering over its fate. I noted with pride that the Great Indian Bustard is far larger than any of its West African relatives: but, unlike them, it is doomed. I have met men who will not admit that the Hunting Leopard is virtually extinct in India, because they cannot bring themselves to believe that an animal they knew in their youth is already gone. But even they realize that our bustard is going, going, though not quite gone.

The Great Indian Bustard is a bird of the open country and very large, so that its presence anywhere is not hard to locate. It is a big fowl, nearly 40 lbs. when full grown (a prodigious weight for a flying bird) and four feet tall on its thick, yellow legs. It takes off with some difficulty and after the manner of an aeroplane, with a long run assisted by flapping wings. Once launched in the air, it gains height with lubberly beats of its sail-like wings, then soars on their stretched spread with surprising ease. However, it comes down to earth after a while, for it is essentially a ground bird. It carries its boat-shaped body like a boat, horizontally, and runs with its head and neck flung forward; it runs far more readily than it flies, and at a fair pace.

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In spite of its dull brown back and dull, earth-bound habits (no one will call it a vivacious bird), the white in its plumage against the dark ground and its size give it away from afar. It has not many enemies in the flat, bare country that it loves, but unfortunately it is excellent eating, and man has never forgotten this.

Man (especially the man with the gun) is entirely responsible for the fact that this wholly Indian and magnificent bird is on the verge of extinction, and only man can save it now. Let me explain that statement.

Animals do not become extinct because they are shot down to the last pair. In nature, every



species faces certain hazards, and survives in spite of them because if some of its members succumb others live to reproduce the species. There must be a minimum population for any species to survive, and the hazards of nature seldom reduce its numbers to below this minimum. This is what is implied in the much used phrase "the balance of nature", and this is not only a phrase but a proved fact as well, the principle underlying the running of any large sanctuary.

By shooting them, by infringing on their territory and driving them to fresh, unsuitable grounds

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or overcrowding them, and in many other ways that may not be intentional, man reduces the numbers of some species to below its biological minimum. Then it becomes extinct. When such a fate is about to overtake any creature, only by preserving it jealously, by helping it in all possible ways to breed back to its biological minimum strength, can we save it.

I have reason to believe that in a dying race the reproductive instinct is exceptionally strong, but unless sufficient living space, food and protection are provided (artificially, by man) this last-minute resurgence cannot save the species.

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Our bustard is an useful bird, besides being ours, on the brink of extinction, and one of the largest of its tribe. It feeds mainly on locusts, grasshoppers, a variety of insects, and the like—the damage it does to cultivation is

more than offset by its beneficial influence.

Can we save it? I think it is possible, if governments will enforce protective measures without too long deliberation. The bird is already on the protected list—on paper. The penalties to be imposed on people shooting the bird should be made stricter—and they should be enforced. A fine will not deter a gourmet, especially when he does not realize that the bird he is shooting is not merely illegal game, but a representative of a dying race that is a hundred times more valuable than it would be otherwise because it is struggling to breed up to the biological minimum necessary for the survival of its tribe. Something must be done, harshly, effectively, to make the flesh of the bustard have a bitter taste to the man with the gun. Only governments can do such things—but is not the Great Indian Bustard a fit challenge to the resources and responsibilities of our national administration?

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It may be thought that already the bird is too far gone for any attempt to save it, however resolute. I do not think so. Someone told me, last week, that there were not half-a-dozen bustards now in Mysore State. Perhaps that was a highly exaggerated statement, but even if it was true, no matter. The Great Indian Bustard is not such a *rara avis* as it may seem at first sight. Last year I counted seven of these birds in the flat country surrounding the village of Hagedal, near Gajendragad in the Dharwar District. These bustards, I was informed, had defined beats. Two of them were noticeably subadult, with dark streaks on their necks: very likely these birds breed in that area. I do not know how many of those seven are extant today, but surely there must be other places like Hagedal?

Experienced sportsmen need no appeal not to point their guns at our bustard but how many gun-license holders know that the bird is rare and dying out? It is quite necessary to inform public knowledge on our vanishing fauna, and the need to preserve it. This, again, is something that only governments can do well. Private enterprise can make little headway in this direction; nor have I seen many appeals to the public on behalf of this bird. The only notice of it that I have seen, outside the writings of a few naturalists, was in an old drawing-book for schoolchildren, and here, too, the bird had been ill served, for it had been defamed, in thick black type!

... CHOUSINGHA ...

NOSTALGIC memories flooded in on me when reading Vic Rosner's account of Four-horned Antelopes in the Sunday Statesman of July 20; memories of eight years spent in a Deccan hill range, where these antelope were almost common.

Those hills are flat-topped, and covered with light, deciduous jungles and lush grass—they are among the oldest hills in the world, scarped along their shoulders and with boulder-strewn crowns. The rainfall averages about 36 inches a year, and the area holds sambar, pig, panther and an occasional tiger, but no bear (though bears lived here once upon a time). I mention these details as Chousingha (Four-horned Antelope) abound in these hills, and their distribution is somewhat capricious.



There are Chinkara in the rocky, open country immediately outside, but they never come up the hills; and the native Chousingha never stray into adjoining Chinkara territory. I was struck with this strict addiction to beats. Few people realize how vital suitable grounds are for wild animals, and how quickly they perish when driven out of their homes into strange country.

The Chousingha is unique. Not only is it the only living thing, bar freaks and fakes, with four horns, but it has also adopted some of the habits of deer, living in the woodland habitat favoured by deer. Those who want information about this remarkable antelope will find it in Dunbar Brander's "Wild Animals in Central India." I will not quote from the classic—and Vic Rosner's excellent article leaves me with very little excuse for the writing of this note.

However, I may justify this in some measure by referring to

M. Krishnan's COUNTRY NOTEBOOK

the Chousingha's abilities as a jumper. Except for the largest ones, antelopes are nimble on their feet and in Africa (the true home of the tribe) there are little antelopes that leap high and effortlessly and live in steep places. Our Chousingha is our



own, and distinguished from all others by the buck's four horns, but it is related to the African duikers.

The Chousingha has a high-stepping action and carries itself with a crouch—it is higher behind than in front, and walks in cover habitually. Its hooves are long along their treads and slightly splayed, ensuring a firm grip on sheer surfaces. Altogether it seems equipped for climbing up and down and moving furtively and fast through the under-

growth. However, it can jump when it wants to.

I have seen a doe clear a seven-foot-high hedge with the utmost ease, almost taking it in its stride. I was posted as stop in a frantic beat for a pair of Chousingha that had slunk into a patch of thick bush. The doe came galloping straight at me, saw me very late, spun round at right angles and with the same movement rose into the air and cleared the hedge by my side. On other occasions I have seen Chousingha in flight go sailing over obstacles in their path, like bushes and small boulders. It is well known that these forest-loving antelope bolt at considerable speed when alarmed, though they usually pull up and go into hiding pretty soon. But their leaping abilities seem to be less known.



Its love of undergrowth and steep, rocky slopes offers the Chousingha a certain natural immunity from the shikari. There is not much risk of this most remarkable little beast being shot out, but man can threaten it in another way, incidentally. During my last visit to that Deccan hill range I noticed that it was getting rather thin on top, and I, who have personal knowledge of such things, know what that portends—I know it surely, in my scalp. The incipient alopecia that I noticed will thrive on neglect, and spread apace. Then deer and Chousingha will go, from lack of suitable cover, and human indifference will kill them more ruthlessly than the gun can. But let us hope that I am mistaken, that man's ancient and primitive love for forests is really resurgent today, that it will move governments and survive their routine.

A Roving Robin

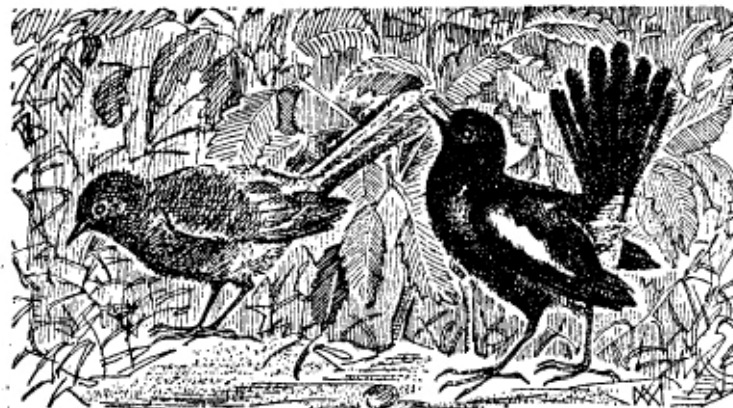
AUGUST was pretty much itself, where I spent the last week. The afternoons were portentous and still, and late in the evenings the rain came down in torrents, drenching the verandahs and gardens and the fields beyond, discovering weaknesses in the tile of my first-floor bedroom. There was a plastered terrace outside the bedroom, spacious and interrupted by the skylights of rooms below. Its parapets were dark and dank with rain-stains and moss, and in a corner a young banian had established a firm foothold.

Soon after my arrival here, I noticed a pair of black-backed robins, flitting from gable to parapet and back, wings drooped, tails fanning out and shutting suddenly close, courting somewhat obviously. The shrill song of the

I found their nest in a crevice in a skylight, empty and recently abandoned. Was this a pair whose first attempts had been inundated, trying bravely again, as birds will? Very likely, but soon I noticed a curious periodicity in their courtship—it was post-meridian. In the mornings the hen was alone, sprightly and flirting its tail, but alone on the terrace or in the garden, below. The cock was away till noon.

Almost by accident I discovered where the cock spent its mornings. It was in a far corner of the garden, rank with new grass and weeds, and there was another hen there. But this was a larger hen, and a more indifferent one. It seemed intent on early worms, and unaware of the puffed-out, strutting presence by its side, singing shrilly.

I made certain, of course, that this duplex cock was the same one that spent the afternoons near my room, and that the hens were different. Now, here was something distinctly odd. Perhaps the morning hen had lost its mate accidentally, but the breeding season was on the wane and there



were other suitors in the neighbourhood. One would suppose that some unattached first-season cock would have utilized the opportunity to mate late. In his Modern Bird Study, Griscom tells of a rather cruel American experiment, where a hen indigo bunting was successively deprived of its mates, and found nine mates in a brief period. In birds where sexual dimorphism is pronounced, as in these robins, it is hard for an unattached hen to escape the attentions of free cocks. And here was this widow-bird, suffering the attentions of a part-time suitor!

Moreover, the placid non-interference of the terrace hen puzzled me. Robins, especially during the breeding season, have strong terri-

torial feelings. Territory is established by the cock, but once it is established, the hen resents the intrusion of rivals into the area. One would suppose that a hen robin would take active interest in the attentions of its philandering mate to another hen, not fifty yards down the beat.

I cannot explain what I saw. I could not stay on at this place and watch further developments, but I saw enough to leave no doubts in my mind over the intentions of the bigamous cock. On my return home I looked into many books, hoping to find some explanation for this strange business, but found none. Is it possible that these unlettered birds have not heard of Territorial Insularity and the Rules of Monogamy?

by

M. KRISHNAN

cock robin has no appeal for me, but I like the trim, ivory-black bird and the way its tail goes up with a flick right over its back; and I like the mud-brown hen, too. Moreover I did not expect to find robins courting, in raw, wet, vegetative August.

A Warning To Aesthetes

SOME 30 years ago, an aesthetically-minded gentleman in the Andamans had an inspiration. The islands offered few social pleasures then; remember, it was settled with desperate convicts and inhabited by aborigines described, by an encyclopaedia of those days, as "savages of a low Negrito type." However, there was vegetative beauty enough, and gazing at opulent plantations and woods, it occurred to this gentleman that what was needed to transform the vista to a scene from fairyland was a herd of Chital in the foreground.

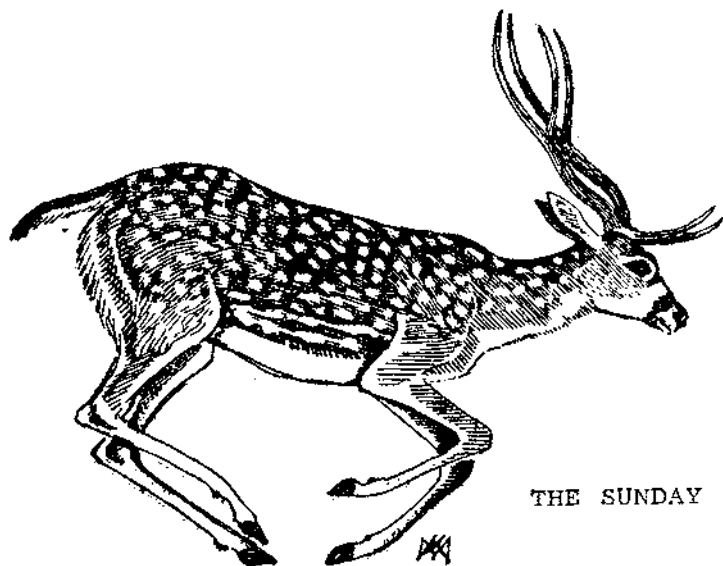
Only those who have seen this most decorative of all deer in a forest glade can know the charm they can impart to a woodland setting: I have always felt mildly surprised that Hopkins wrote "Glory be to God for dappled things..." without having seen Chital. Anyway, this gentleman lost no time in gilding the lily—he imported a few Chital into the islands from their native home.



Frequently it happens that impulsive importations have unexpected consequences, and these Chital were no exception. Any competent naturalist could have predicted the result—Chital are very hardy, very prolific, and large enough to resist the smaller predators (the Andamans contain no greater cats). I quote from a recent news item featuring the tour-report of the Inspector-General of Forests to the Government of India, after a visit to the islands:

The introduction of chital (spotted deer) from the mainland 30 years ago is regretted. In the absence of their natural enemies they have become as great a menace as rabbits in Australia. The report announces the arrival of two female panthers in the islands to check any further increase in the number of chital.

Well, that sort of thing will happen. However, it is obvious to the critical reader that if all that is now sought to be done is to check further increase in the Chital population, the comparison with rabbits in Australia is exaggerated. I have never been to Australia—



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lia—for that matter, I have never been to the Andamans, but I understand the rabbit position there is really menacing.

It has happened, almost invariably, that wherever man tries to improve nature by importing exotic plants or animals, they have perished from inability to acclimatize themselves, or else they have overrun the land. Take the Lantana, for instance. Its

this case. Panthers are the natural enemies of Chital, all right. They have an appetite for Chital flesh that is not easily satiated. Chital are not shy of human neighbourhood and enter plantations freely; in fact, that is why they are a nuisance in the islands. They can be shot down easily; the introduction of natural foes that will give them a chance of survival, in preference to mas-

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conquest of India is surely the most rapid and complete in the history of our much-conquered country—and it was never actually introduced into India; it was brought to Ceylon, and just leapt across the ocean in the gizzards of migrating birds.

Why must men upset the balance of nature? The shooting down of animals ruthlessly, without thought of the survival of species or the way it upsets the well-trying equilibrium of God, is something that is even more reprehensible than thoughtless importations. It is going on all over India, but it is only the animals that perish, and so no one cares. When they flourish overmuch, as these Chital in the Andamans do, it is then that we are moved to quick action.

I would like to point out the soundness of the action taken in

sacre, is a laudable action.

But why "two female panthers"? Of course what follows is largely guesswork, but I think they are going cautiously. Apparently the instance of the importation of mongooses to check the rat menace in the sugarcane plantations of Jamaica is being remembered, besides rabbits and Australia. Those mongooses did their job well and suppressed the rats: then they turned their attentions to the poultry runs. Too many leopards in the Andamans can lead to highly unpleasant consequences, for panthers turn quite often to domestic stock when other hunting fails them, as I, who have lost many milch-goats to them, know well. I grant that the application of the analogy is hardly apt or direct, but perhaps the story of King Log and King Stork has also been remembered!

BIRDSONG AT DAWN

*Arise! The vital breath again
has reached us:*

*Darkness has gone away and
light is coming.*

*She leaves a pathway for the
sun to travel:*

*We have arrived where men
prolong existence.—From
the hymns to Usas, the
Rigveda.*

I AM afraid I am habitually late in arriving at this juncture. Along with a fondness for dark hours, I have developed a certain punctilio in closing all eastern portals before going to bed, so that neither the fresh dawn nor the life-giving sun touches my slumber. There is much to be said for deep sleep at daybreak; I am convinced it has tonic properties. Moreover, look at the early worm! It gets the bird.

So do all early others. Bird-life everywhere is assertive at the crack of dawn. On the occasions when I have been compelled by circumstances to the experience, I have always noticed how suddenly the silence of the hour before sunrise yields to the voices of birds. Long before the formal appearance of day, the earlier birds are up and vocal; when the sun's red rim breaks the horizon, a swelling chorus greets him. There are many voices in this medley, some sweet and strong, others strong but not sweet, much cheeping and chirping. To quote from MacDonnell's excellent rendering of Rigveda hymns again:

*Bright leader of glad sounds
she shines effulgent*

*Dawn has awakened every
living creature.*

Another Orientalist, Edwin Arnold, has a more specifically avian passage about dawn:

*The koil's fluted song, the
bulbul's hymn,*

*The "morning, morning" of
the painted thrush,*

*The twitter of the sun-birds
starting forth*

*To find the honey ere the bees
be out,*

*The grey crow's caw, the par-
rot's scream . . .*

Somehow, no poet mentions that most exhilarating of all proclamations of daybreak, the brave, clear call of the cock partridge.

★

I know many more poetic references to birdsong at dawn, but shall not cite them. My attempts at discovering scientific literature on the subject have been painstaking, but not very successful. Surely there must be some cogent literature on dawn-song, with so many naturalists, here and elsewhere, given to early rising? But I cannot find it. I did succeed in locating some precise Indian records of the order of awakening among the birds of particular places, with exact timings. One of these records provides details of the entire output of song of the species studied over a number of days, with the course of their singing plotted on graphs and even information on the make of the chronometer used. These records are valuable as evidence tending to determine the order of awakening among certain birds in certain places, and their diurnal singing peaks, but I was surprised to find that inferences drawn from them wholly ignored several vital factors. I realize that it is ironic that I should formulate theories on dawn-song, and further realize that I have nothing startling to disclose, but since I can find nothing better, I give you my own views.

★

Season affects all birdsong, and so morning songs, too. In November, for example, one is likely to miss the Koel that dominates the hour before dawn in June. Many of our songbirds are silent for a few months in the year. Season, again, determines migrations and courtships, and so affects the bird voice of any place.

Apart from birds of the cuckoo tribe, I cannot think of visitors, off-hand, that are likely to dominate any locality with their voices. But many migratory birds roost in close numbers, and though they are more vocal when going to bed than when getting out of it, even

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their weak voices gain volume in chorus. The morning voices of swallows, heard from near, have a peculiarly pleasing sound, like that of running water.

The gregarious roosting of resident birds, again, is largely seasonal. Recently, I read of the plight of city dwellers who must awake to the raw, proximate caw-



ing of crows, but they are lucky folk, if you ask me. In certain cities and towns the Common Mynah is apt to roost in hundreds, and compared to its morning voice (its evening voice, of course, is much worse) the cawing of crows has a remarkably pleasant and soothing quality. The main bazaar in Mysore and many markets in the heart of Bombay are favoured by this mynah, and I believe that in certain parts of Calcutta the Pied Mynah takes its place quite efficiently, especially in winter. Parakeets sometimes patronize city dwellings of the old style, with parapets and domes; the Collectorate at Bellary is an example. Their dawn chorus can be quite penetrating.

★

Since the birds of any place depends so much upon its terrain and location, these factors must influence its dawn-song powerfully. Just think of morning voices in the open countryside and in the wooded jungles, for effective contrast. I can never forget three successive dawns in the Supa block of the Karwar jungles, where both the Shama and the Racket-tailed Drongo greet the sun. The Shammas, which sang more consistently at dusk, made nightfall even more rapturous.

Even apart from terrain determining the species of birds that live about the place, I believe it influences birdsong. I have noticed that in the wooded countryside the common king crow (I am not confusing it with the White-bellied Drongo) is more given to dawn concerts than in urban localities. Apparently it wants space and plenty of perches in the open for its harsh, heartening chorus.

Birdsong At Dawn

(Continued from previous page)

have unlovely voices, even when they do find them—the birds of prey, kingfishers and woodpeckers are examples—but some of them can sing sweetly and like to sing in the afternoons. The Pied Bush-Chat and the Pied Wagtail are birds that provide buoyant, delightful music to the late riser, even if he lives in a town. Another glorious songster that will enter towns is the Magpie-Robin though it sings only in summer and is partial to the false dawn. However, its song is one of the very few things in life for the sake of which it is worth getting up at 5 a.m.

Birds of the cuckoo family (especially the Koel and the Hawk-Cuckoo) and a few others will call at night when there is light enough; sometimes they usher in each watch of the night as if it could not progress without their announcements.

All these are factors to be considered in studying dawn-song, but what I like most about it is the fact that very often the vocal zest of birds then cannot be ascribed to the two main motives that are said to induce birdsong, territorial feeling and love. I like to think that birds sing at times just because they are happy, from *joie de vivre* and nothing else, and their morning songs cheer me for this reason, however harsh their voices.



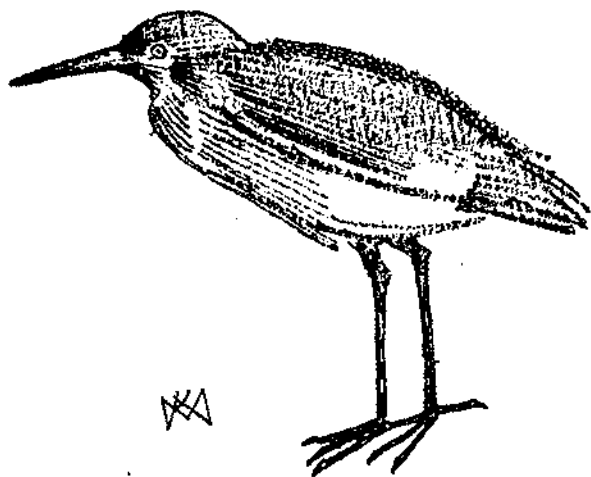
First, it should be realized that this entire question of matins is a complicated study, like other aspects of bird behaviour and life. There is no space for comprehensive detail, but I may mention the main factors that one must remember, when studying birdsong in the cold, grey morning. The season (in the climatic rather than calendar sense of the term), the locality and terrain, the resident birds of the place and the arrivals and departures of migrants, gregarious roosting habits and nesting, and atmospheric conditions (particularly lighting) all influence birdsong profoundly, not only at dawn but at all times.

Less obvious, but equally important, are the vocal tendencies of each species. All these factors are interrelated, to complicate things further.

Lastly, there is the question of individual preferences. I know a very intelligent young lady who is quiescent and quite safe to talk to till breakfast. Gradually, as the day develops, she finds her voice and by evening it is sheer foolhardiness to indulge in argument with her. It is the same with some birds; they are not vocal in the morning. Most of these birds

(Continued on next page)

Lone Sentinel Of The Puddles



LIFE has grown wet and plastic during the past week. Visitors bring in footloads of mud, which they scrape against the stone steps or distribute over the verandah—being given to petty joys, I note with satisfaction that when they go away the sodden gravel leading to my gate shakes off at each step from their shoes, and that I have gained soil. The ditches flanking the road are turned into brown rivulets, and the dip in the field beyond, hardly perceptible in September, is now a miniature pond.

All this wetness is different from the somewhat formalized depictions of wetness that we are so used to. There would be white glints and dimpled blue patches in an artist's picture of these October puddles and flooded drains, and turbulent streaks of red, perhaps, to denote the freshets. Actually, the lowering skies yield no

highlights; everywhere the water is a torpid, deep umber, thick with mud and squirming with infant life. Almost as if by magic, innumerable mosquito larvae and tadpoles have appeared in the pond in the field, even little fish. Life began in the slush, according to biologists, and the slush is very fecund still. As I bend over its squelching rim to peer into the pond's teeming depths, I am conscious that I am not alone.

Another huddled watcher is on the other side, acutely aware of me. My cautious advent has driven it several yards away, and now it seems on the point of

merging it quietly again, and now its neck is again outstretched—it is withdrawn once more as the bird halts, and takes its stance in the shallows.

For two long minutes it stays utterly still, only the hard, yellow glint in its eye betraying the avid life in the dull, slumped body.

While fish that pass pass by, till the destined fish comes in, Great is the heron's dejection, says a cynical couplet, in Tamil. Presently, and without the least warning stir, the dagger-billed head shoots down on the extensible neck, a tadpole is lifted deftly out of the thick water, and swallowed in the same movement. At once the neck is drawn in, and the morose, huddled pose is resumed, so quickly and completely that I could have sworn that its waiting had been unbroken, had I not watched the movement.

★

The pond heron or "paddy bird" is probably the most familiar of our waterside birds. Wherever there is not too rapid water, a puddle or a pond or any shallow stretch, you will find it there, an unmistakable little heron with dingy plumage, a humped back, and sulky habits. When alarmed it emits a harsh "kra-ak" and is instantly transformed into a dazzling creature on broad, white wings—its pinions and underparts are white, but hidden

except in flight by its earthy mantle, and in flight it seems an all-white bird. Americans in India used to call this heron the "surprise bird," from the sudden contrast between its drab, unobtrusive repose and the flashing whiteness of its flight; I believe the name is no longer in fashion.

★

Though roosting and nesting in company, pond herons are unsociable by day. They are lone hunters; occasionally you may see three or four near one another, but they never seek prey in common, and even when going home to roost do not join together in large flocks. They are strong flyers, and though they look rather like cattle egrets in size and whiteness when on the wing, it is easy to tell their firm, quick wing beats from the lubberly action of the egrets.

Incidentally, all herons fly with their necks tucked in. Wordsworth's

And heron, as resounds the trodden shore,

Shoots upward, darting his long neck before.

might be quite true of a heron shooting up into the air in alarm, but once it settles down to flight the neck is not darted before, but is doubled up and drawn in—that, in fact, is the token by which one may know members of the heron tribe from other waterside birds on the wing.

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flight. I retreat to the roadside and squat immobile, and the pond heron returns to the water, step by deliberate step, its apprehensive head stretched out in front on its long neck. It stops at the water's edge, and is immediately harder to see. The extended neck is doubled up and drawn in between the shoulders, so far in that the bird is neckless; the streaked brown of its humped back and the yellowish greys of its legs and beak blend with the muddy background. It walks carefully into the water, lifting each foot clear of the surface and carrying it forward through the air before im-

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*

by M. KRISHNAN

MR Hem Chandra Datta's letter, in the Calcutta edition of the Sunday Statesman of Oct 12-13 and Northern India edition of Oct 16-17, suggests a new cause for birdsong, that it may be due to "anger, fear or worry". He begins by saying that the *joie de vivre* motive for song, mentioned in my Country Notebook article of Oct 5, is not new and was put forward by Julian Huxley long ago; then he goes on to say it is more likely birds sing from mental disturbances far from joyful.

May I point out that all I said was that birds occasionally sing from sheer exhilaration, and that the dawn chorus might well be due to this, since the two main motives for birdsong, love and territory, had often no application then? Of course this theory is not new, nor did I claim it as mine—the only bit of theorizing I did was over the factors governing the bird voice of any place, where I am on very solid ground. For the rest, neither Julian Huxley nor I can claim originality for the view that birdsong is occasionally inspired by joy. It was there generations ago: "Eha", for instance, advocated the view.

*

Biologist-naturalists like Tinbergen and Lorenz, whose scientific approach Mr Datta hopes will provide a "consistent explanation of birdsong", will be the first to point out that, though moved by powerful instincts, birds are highly emotional and complex beings, and that to impute automatic, unvarying reactions and fixed motives to their vivid lives is as unsound as the sentimental attribution of human values. Love and territory are undoubtedly powerful motives with birds, and cause marked reactions, including song, but no one will say that these are the only things that induce vocal efforts in birds. Lorenz himself has worked out another motive; he says that songbirds in good health are given to singing from lack of other occupation—from loneliness and boredom. It is significant that he adds that birds so singing do not appear to be depressed, and that we need not pity them. To provide another motive, it is well known that gregarious birds like certain babblers and the Pulney Laughing Thrush keep calling, to keep in touch.

Let me provide examples to the contrary to Mr Datta's statement of the vocal behaviour of typical songbirds, to illustrate how complex the question is. He says "the nuptial chase is not accompanied by any song." Among pigeons, the climax of vibrant vocal effort is reached only during the nuptial chase, and the strongly-patterned courtship display is continued very briefly in pantomime, after the act of mating. Again, the statement that it is in response to a rival, to call the straying mate, or out of loneliness when the hen is brooding that a male bird sings (once territory is established), has many exceptions. One of our most charming songsters, the Pied Bush-Chat, will sing freely in the absence of all these conditions.

*

I quite see that Mr Datta's theory is fascinating, in a way, and is scientifically legitimate, if we do not insist on a literal interpretation of "anger, fear or worry"—of course what he intends is not only those very emotions as we know them, but like uneasy promptings. But if birds sing from unemployment, boredom and loneliness (we may take these as proved causes), that does not preclude their singing from sheer joy—on the contrary, I should think those promptings establish a complex mind, capable of apprehending joy. Even if they sing from exasperation and frustration (not yet proved) they may well sing also from exhilaration. I am keen on saying, again, that this question is complex and involves highly emotional creatures that are sensitive to many influences. There may be a dozen different motives for birdsong, some of them contrasting. This is not a sentimental view, but a very objective one. I am keen on reiterating it so that I can say, ten years later when we know more about the motives of birdsong, "I said so". Of course I claim no originality in this, but only addiction to a biological viewpoint.

Lastly, Mr Datta's tentative suggestion that birdsong in the morning is induced by a quick response of the "fight-or-flight

glands" to dawn light, the light starting the chain of increased adrenalin in the blood, restive resentment and consequent burst of song, is interesting but cannot, I fear, account for the behaviour of a number of songbirds. Some of them sing long before the sun's first light illumines and warms this dull earth; others reach their singing peaks in the afternoon; still others exhibit no definite periodicity. Moreover, a rise in the adrenalin level of the blood cannot incite fear or worry—perhaps anger is a nearer emotion to the confident assertiveness that this rise promotes, but of course *joie de vivre* is nearest to it.

I should make it quite clear that those who think *joie de vivre* is a motive for birdsong do not think so sentimentally, but are led to the conclusion by factual considerations. No books are available to me at the moment, so that I cannot cite authority for this statement now, but this is unnecessary. From my own observation I can speak to certain factual considerations. It requires no

great understanding of birds to know when they are unwell, physically or mentally. Their attitudes suggest dejection then, and they are usually silent. I have never seen a bird that might be experiencing emotions similar to fear or worry indulge in song. Even the vendors of caged birds know that isolation and a cloth cover to exclude the outside world are not enough to make a bird sing: it must be in exuberant health—and spirits.

The truth is that it is not hard to speculate on diverse and opposed motives for birdsong. But I cannot understand why some people must exclude the motive of joy. One could quote Hardy's "Darkling Thrush" tellingly in this context:



Mr Datta says that the typical song-behaviour sketched above by him, and the fact that a male bird preoccupied with finding food for the young does not sing and resumes singing only when the fledglings are grown, "points to song being associated with anger, fear or worry". I am unable to see how this must be so. I should have thought that if worry inspires birdsong, the harassed father of a clamorous brood would be bubbling over with song.

As for the song of the lark released by a hawk, this type of behaviour must have been noticed occasionally by any serious student of bird life. The immediate resumption of normal activities by birds that have escaped death by the skin of their non-existent teeth has been explained, by ornithologists like Griscom, as showing remarkable lack of fear due to poor intelligence and poor apprehension of danger—I do not know if anyone else has suggested the explanation, but I think it may be due to an urge to feel reassured at once by the performance of familiar acts. Anyway, there seems to be no reason for presuming that a bird that has just escaped death feels any strong resentment, worry or fear.



*So little cause for carollings of
such ecstatic sound*

*Was written on terrestrial
things afar or nigh around,
That I could think there trem-
bled through his happy good-
night air*

*Some blessed Hope, whereof he
knew and I was unaware.*

Even if some man of science, whose scientific fetish is the exclusion of all emotions from all things, were to come forward with the theory that what made that aged thrush burst into song was merely a more sensitive perception of infra-red rays in the sunset, no matter—that sort of restive perception might well be joy. But of course one can always quote Shelley in favour of the non-joy view, that it was not any access of glad feeling that moved the bird, but only "that unrest which men miscall delight"!

SCRUB CATS

HERE is a faithful copy of a quick pencil sketch I made years ago, of a cat licking its hind feet. Cats at this occupation make indifferent models—they stretch and twist into queer postures and are very mobile. However, I thought the likeness reasonably good, which is why I have copied it for you. Now, what sort of a cat would you call this one? A nondescript tabby, obviously, and a pretty hefty one, less obviously.



Perhaps it was preening itself on the drawing-room sofa, or on the kitchen roof, but clearly it belongs to the common or garden variety of Indian cats. No one would guess that this smug creature was a tomcat, for all its tabby markings, that it was completely wild and that it was sketched in my pigeon-loft soon after the massacre of my racing homers.

Hearing a flutter in the dovecot I went to it, and found that this was no metaphorical flutter. Crouched beside the strong wooden box that held my mated pairs in safety was this cat: four

and these are easily the commonest cats of the countryside. They never enter human dwellings, except to raid poultry, and have reverted to a purely feral life. In colour and build they are indistinguishable from the mongrel pussy-cats of our households and roofs, with which they interbreed freely in places where the scrub adjoins human settlements. Only in temperament and in a certain hard-bitten, tough look do they differ from their domesticated progenitors.

This difference is one that is hard to define in words, but which is apparent even to casual observation. Generations spent with men have evolved a love of snug corners, an audacious familiarity, and a certain gracious tolerance of

human favours in the household cat, without loss of dignity and aloof reserve in matters personal to itself. There are even friendly pussies—my wife used to be owned by one, named Palti, which would turn somersaults across the carpet when my wife requested it to, and which was unusually indulgent towards clumsy humanity. The scrub cat, on the contrary, distrusts mankind and has forsaken the comforts of the sheltering roof for the hard independence of the open air.

Times without number I have seen these cats in the jungle clearings, and sometimes I have watched them at their hunting. Anything small enough to be overpowered is legitimate prey—rep-

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Scrub Cats

(Continued from previous page)

tiles, birds, beasts. I have known one kill and partly eat a snake, and once I saw one carrying a leveret in its mouth. Field mice and rats form a substantial portion of their diet, and to this extent they are beneficial to agriculture. After it is dark these cats go the rounds of the cultivated fields, and will sit up near mouse-holes and the runs of rats with unrelaxing patience. They hunt mainly in the dark, but I have seen one stalk and kill a squirrel under a blazing sun. These cats are versatile and expert hunters, and must account for a number of ground birds, like partridges.

And who are their enemies, in turn? Jackals are big enough and strong enough to kill them, but a cat can always escape from such enemies by climbing the nearest tree. Frankly, I do not know if any animal, in particular, is fond of cat flesh or hunts these wild pussies regularly. However, they are never remarkably numerous in any locality. We know little about their breeding habits in the scrub, but I presume that they are not very fecund, that infant mortality claims quite a few kittens in the uncongenial, uncompromising scrub and that diseases account for a number of adults—I have seen some scrub cats in wretched condition.

Cats are not fast breeders, in comparison to many other animals, but even so it is only on the above presumption that I can explain why they never overflow any place: they seem to have no particular, limiting enemies.

by
M. Krishnan

of my seven unmated cocks (relegated to perches in the loft) were on the floor in a bloody, fluffy mess, and the air inside was thick with down. The cat had entered through a forced gap in the split-bamboo partition of the loft, some six feet from floor-level—it could not get out that way because the inwardly-bent slivers blocked the gap.

My first thought was for swift revenge, easily possible in that limited, trapped setting. But what possessed me was not so much a thirst for vengeance as self-reproach at having left that split in the bamboo work unrepaired. A predatory beast cannot be blamed for taking advantage of weaknesses in the partition that separates it from its meal, nor for killing again and again when it is impounded with the prey. I slipped into the loft and stood against the door: the cat crouched in a corner, every muscle tensed, ready for action. After a while the unhurt, panicking pigeons settled on their pegs, and the cat relaxed its attitude. It took no notice of the corpses at its feet, but began to lick itself all over carefully, as if to remove the evidence of blood on its coat, watching me out of the corner of its eye. When I had made my hurried sketches of the killer, I stood aside and pulled the door ajar, a gesture to which the watching cat responded by disappearing into the scrub outside in a grey streak. I took good care to mend the gap in the bamboo partition and had no further losses.

That cat was not a true wild cat, but only the semi-domesticated variety run wild. There are a number of true wild cats in the scrub and jungle outside villages, varying in size and colour with locality—the most familiar of them is the Jungle Cat (*Felis chaus*), as big as a show-type fox-terrier. But there are any number of "domestic" cats living in the scrub,

COUNTRY NOTEBOOK

Quail In The Grass



IN November the grasses come up with a rush. Right from September onwards they grow, rejuvenated by the rains into fresh, green, spreading vigour, covering slopes and clearings with their lush carpets. Some of them continue their vegetative spread longer, but many are already in seed by the end of November. That is true not only of the wild grasses, but of the cultivated varieties in these parts, like jawar and bajra. In fields fitting together along their bunds to a geometrical jigsaw puzzle, along the banks of paths and in jungle clearings beyond, the grasses stand high or less high, offering cover for squat little things. Now is the time to look for quail in this cover.

Of course those that look for them with a gun will look later, when the crops are harvested and

by **M. KRISHNAN**

the birds gleaning grain in the stubble are easier to flush. Moreover there are too many young about now. Practically every bevy of quail that I see now consists of a parent pair accompanied by young, miniatures of the old birds no bigger than a breakfast egg on red legs, marvellously assured in deportment and finished in plumage.



Even a full-grown quail is wonderfully dainty and richly marked, to those to whom its plump body has not only edible virtues. But perhaps these little ones represent the most perfect miniatures in barred and speckled beauty that can be found among birds. I have always been fascinated by the sight of a family party of quails.

They have many enemies, these baby quails, and so have their parents. I am writing mainly of Rain-Quails and Bush-Quails but I suppose it is true to say that the entire quail family means juicy meat to all hunters in the scrub, besides men. It is by wariness, the ability to run swiftly in the cover of grass and low shrubs or squat tight in a thorn bush, and the sure instinct of obedience in the young, that the tribe survives. A baby quail is strong on its leg within a sur-

Country Notebook

(Continued from previous page)
prisingly short time of its genesis, and very soon it is able to whirl low on its tiny wings, but it is the watchfulness and craft of the old birds that saves it most often.

Recently I watched the escape of a quail family from a purposeful hunter. I was sitting immobile behind the screen of a Lantana, watching a pair of Bush-Quails and their three tiny progeny. They were pecking at an ant-hill some 20 yards away, in the middle of a grassy field (incidentally I think young quail, like many other young birds, depend quite a lot on termites and other soft-bodied insect prey). A prowling cat saw them and walked away, very casually, and disappeared in a dip beyond. Presently I saw that cat come creeping in from an altogether different direction, taking advantage of a hedge to approach the quarry. The predator was barely visible from where I was, but well hidden from the quail by the mound of the ant-hill. However, one of the parent birds saw him when he was just three yards away, and bolted with a hurried whistling call, running fast to the cover of the hedge on the other side of the field. Had the rest of the family scattered the cat might have had a chance, but they too made off in the same direction, running smoothly and instantly away from the threat, the young ones invisible in the cover of grass. As everyone who has been present at a beat for quail knows, Bush-Quail when flushed are apt to disperse suddenly in different directions. I was surprised at the orderly method of this escape.

And I noticed that that cat accepted defeat with philosophical calm. It made no attempt to get at the quails again, with another flanking movement, but just walked steadily away, to "fresh fields and pastures new."

(Continued on next page)

A buffalo, a tiger, and a trick worth knowing

WHEN first I set eyes on Bommakka she was in a newly-cut field of millet, tethered to a stake. Along with the country schoolmaster who owned her, I had walked two miles to see her: and I could see little in the massive, slate-grey beast to justify my friend's pride in ownership. On the way to that field he had extolled the courage, the great strength and the noble disposition of his pet—and there was this old buffalo cow, disappointingly commonplace in her looks.

Yes, she was bigger than most village buffaloes bigger and darker, and no doubt she was in splendid condition. But I had expected something more mettlesome than this placid, elderly cud-chewing creature that allowed me to stroke her Roman nose, and nuzzled closer when I stopped stroking. It was then that I noticed that the poor thing was quite blind in one eye.

However, I summoned a tone of surprise and envy and spoke admiringly of the beast; I know how strong, how strangely uncritical and sensitive, the bond between a man and his buffalo can be. My friend insisted on our crossing and recrossing four spiky fields of stubble to fetch Bommakka an armful of green bean plants, pods and all. And all the way home he regaled me with rambling stories of her prowess.

No doubt I had noticed that she was in an interesting condition—

she was getting on in years and this time, at least, he hoped she would bear a cow-calf—unfortunately, on both the previous occasions, in his five years of ownership, she had presented him with bull-calves. Well, to come back to what he was saying, very soon he would have to send her up to the hill-top, nine miles away, where there was lush grass to be had for nothing, and the herdsmen there would welcome Bommakka with joy. For once she was with the herd, the heifers and dry milch-cows were safe from raiding leopards. A full-grown buffalo, of course, is too much for any leopard to tackle, but I should realize that most buffaloes, grazing in the jungles with milch cattle, would be content with making off by themselves when the killer seized a calf. Bommakka was not like that; she understood her responsibilities by the weak. The minute she scented the enemy she would charge him fiercely, and no leopard dared face her onslaught. My friend went on to tell me of the rescues she had effected, and I listened politely, pondering over the amount of imagination that went to make any heroic figure.

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Next week I was in the hill-top jungles, along with a shikar party. What took us there was news of tiger—of a tiger that had crossed over into our territory from an adjoining range. We found his pug-marks in the sand of a pool's edge, enormous in their splayed-out spread, but footprints on hard earth told us that he was full-grown, though not perhaps of record proportions—two months later, when that tiger was shot, our estimate was proved right, for though he taped only 9' 9" between pegs, he was in his prime and very heavily built. A deputation from the hill-top cattle pen met the guns with an urgent request to save them from this new menace. The tiger had already accounted for a cow from their herd as also for a big, red Sindhi bullock belonging to the tobacco company at the foot of the hill. As we turned home after assuring the herdsmen of our keenness, I remember thinking idly that Bommakka was probably in that cattle pen, and that even her credulous master could not expect her to deal with a tiger!

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A few evenings later, in answer to a frantic message from the schoolmaster, the local medico and I rushed off to a field, where a group of gesticulating men stood well away from an excited buffalo. The herdsmen who had brought a very lame Bommakka down from the hill gave us a vivid account of the incident. That morning, as the herd was being driven into the jungle, the tiger had leaped out from ambush.

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with loud roars, and the cattle and men had dispersed in terror. But as they ran for dear life to the shelter of a nearby shrine, the men had seen Bommakka turn and charge the great cat. Naturally, they could not see what followed. But for a few minutes they had heard the sounds of battle, the snorts of the gallant buffalo and the roars of the tiger, and then the tiger had gone away, the fainter and fainter tone of his occasional voice telling of his retreat. When they had gathered courage at last to go back to the spot, they found the old buffalo in a trampled clearing, raging with pain and anger and covered with blood. Beside a bush was the victim, a young heifer that the tiger had killed instantly, with hardly a mark on its white coat.

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Some sort of cleaning of the wounds had been attempted, but the men were afraid to go too near the excited buffalo, and blood was still flowing from the deep gashes. The wounds told their own tale. There were four deep, long, parallel gashes down the left hip and thigh, and the right hock was severely bitten and swollen to twice its normal size. Apparently the tiger had tried to hamstring his huge adversary from behind, leaping in from her blind right side and getting a purchase over her left hip with his grappling-hook claws.

Veterinary aid was non-existent where we were, and Bommakka's restive mood complicated matters. She was in obvious pain, but there was no hint of shock or fear: she cropped the fresh, short grass at her feet with fierce relish and glared out of her single eye at us; her nostrils were distended and when we tried to approach her, she tossed her head and snorted low in warning; the four long ropes that had been used to lead her home trailed the earth besides her—I was sure those ropes would have been useless had she not wanted to come home.

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Finally, the schoolmaster sent us away, and after a while the great beast suffered him to lead her, limping painfully, to the ramshackle shed behind his cottage. Once she was there, it was possible to syringe out the wounds gently with an antiseptic lotion, and apply the liquid, white paste that the medical practitioner provided. No doubt the gashes re-

quired stitches, but this was out of the question.

In a couple of days the gashes over her hip and thigh had begun to heal marvellously, but the hock was as bad as ever, and the animal had lost weight alarmingly. The big ribs stood out clearly beneath the hide, and there were deep hollows between and behind them. The trouble was that the great beast could get no sleep or rest for the pain and stiffness of her swollen hock—a buffalo that cannot lie down will waste away, however carefully it may be fed. Some half-a-dozen of us thought furiously of some plan by which the heavy weight of Bommakka's body could be eased off her stiff, injured hock—one of us even went to the extent of devising a sling for the body from gunny bags—but all our thought was futile. The schoolmaster feared that the fact that Bommakka was far gone in calf would complicate things further—however, the immediate problem was to provide her with rest.

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This is a true story. I can vouch for every word of it. I state this here because on the third day a miracle happened—the buffalo found the solution that had escaped all of us. She snapped her tether with a casual flick of her head and limped, painfully but with determination, to the watercourse nearby. She waded into the murky, green depths of a pool there, deeper and deeper in till only the nostrils, the eyes and the bump of her forehead showed above water. And at last, with buoyancy doing the trick that all our cunning had failed to achieve and her weight off her legs, she closed her one eye and went to sleep. It was a job to get her out of the pool and lead her home as darkness fell, and early next day she was back in the water for sleep.

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Being apprehensive humans we continued to fear for her for a while. We thought that the dirty water coming into such prolonged contact with the wounds might result in sepsis, but in a week's time Bommakka's wounds had healed completely and in a fortnight she was her old self, with only the raised scars to bear witness to her adventure. Nor did the experience affect her condition as her master had feared. In due season she presented him with a robust, beautifully pink calf. Need I add that it was a bull-calf?

COUNTRY NOTEBOOK

by M. Krishnan

Bats In The Rain

FOR a week now it has been raining continuously or threatening to rain. Lowering clouds obscure the sky, there is a sustained gloom that only lamplight at night relieves, and when it does not pour there is a damp wind blowing. Slugs crawl slimily up the outer walls, enormous insects enter the house, the ditches are loud with frogs—the lesser life, and the things that prey on it, flourish in spite of this depressing weather. But, when the wind is high or the downpour becomes a deluge, it is of flying foxes that I think, hanging upside down in their roosting trees.

stood where these things had been, and I turned home, looking and feeling very sheepish—and wet.

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The lie of the hair in a flying fox is towards its head, and this reversal of the usual arrangement serves it well, hanging upside down in the rain. Frequently these bats choose a banyan or an aged tamarind for their roosting tree, and I suppose that such a well-sheltered colony could gain nothing by seeking protection elsewhere during heavy rain. But what do the inhabitants of

only the liquid part, rejecting the rest. What one sees under the roosting tree of these bats is not their droppings, but such rejected matter, but the litter represents only a small part of their nocturnal orgies. When they come in to roost after raiding an orchard, they bring home something to munch in bed, and it is the pulp, mashed rind, and seed of this that litters the ground beneath their tree.

Of course they can and do eat solid food. Dealing with soft homogeneous fruit, like plantains, they cannot separate the juice from the mesocarp by mastication, and so they eat it whole. It is amazing how deftly a flying fox uses its umbrellaed hand for holding a plantain, when it is given one. I saw a captive in a pet market consume two plantains in excellent time in this manner—it was ready for a third at the end of the performance, but no one had a plantain to spare.

*

These bats are caught and sold to those who manufacture indigenous specifics, for the supposed medicinal worth of their blood. I mean the blood of the bats, of course, though I don't suppose it makes much difference even if the sentence is construed the other way round. A hair-oil, infused with the potency of flying fox blood is said to be a sure cure for baldness, weakness of the brain, insomnia and similar disorders. I have no doubt that those who make this oil do use the bat's blood in its manufacture, but I, for one, am quite certain that it can cure none of the afflictions listed above. I should know—I speak from personal experience!

In November I used to see them in hundreds each evening, flying out to feed. I see them no longer, though I know that with fine weather they will be back in the darkening sky again—perhaps even now they beat their way through the pelting air and it is only the rain that hides them, but I am sure their evening flights are less gregarious and regular now.



What intrigues me is whether the colonies that have settled in the more exposed trees hang thickly on to the slippery twigs in this weather, or have left for less open resorts. Yesterday my curiosity got the better of a desire for dryness, and I went miles out into the rain to an old silk cotton tree in a plot of wasteland that used to be a favourite roost of flying foxes.

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tall, upright trees with not too heavy a crown, like the silk cotton, do in foul weather? I do not know, but I am quite prepared to believe that they just hang grimly on, wrangling occasionally with a neighbour, while the wind rocks them bodily and the water runs off their foxy heads.

*

Much of a flying fox's time is taken up with fighting its immediate neighbour, whether it is feeding or having its siesta, the two main occupations of its life. I do not know why it should have such a quarrelsome nature, for its diet has the approval of the sages, and consists of things specially recommended by them as tending to promote a mild, benevolent disposition. Flying foxes live entirely on nectar and fruit juices. The nectar they get by chewing up flowers, and when eating fruit they take in

It was six years since I had passed that way and noticed the dark, living load of fruit among the pendent green fruits of that tree, but that made no difference. Unless shot repeatedly or otherwise made unwelcome rather pointedly, a flying fox colony does not desert its roosting tree in a hurry. I know of another colony in a clump of tamarinds outside a village that have hung on to their home for over seventy years, if the oldest inhabitant of that village is to be believed—and I saw no reason to disbelieve that forthright patriarch.

However, my quest was unsuccessful, though I did succeed in getting drenched to the bone in spite of my mackintosh. When I got to that place there was no silk cotton tree, not even the plot of waste. A tidy little house

The Poor Man's Cow

COUNTRY NOTEBOOK
by M. KRISHNAN

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EVERYONE knows the common goat, and very few love it. Too often it is the common or garden goat, a vandal worse than the blight or caterpillars, swifter than them in destruction and harder to keep away. It trespasses lightly into the compound and makes for your choicest plants, pulling creepers clean off their frames in its tearing hurry, biting off the growth of months for the sake of a few young leaves. Those who have a modest kitchen-garden, and those who own large plantations, detest it equally; and in three different provinces I have heard officials of the forest department, from the conservator down to the ranger, speak of the goat as they would of some Satanic power—so often does it nip their afforestation efforts in the bud.

I admire the goat. No other domestic animal has its richness of character, its vivacity, caprice and independence. It is a lovable and wholly useful creature, cheap and productive when alive, the source of fine leather and the bulk of Indian "mutton" when dead. Even its droppings are valuable, as manure.

However, I shall do the goat no good by defending it against such overwhelming opposition, espe-



cially when there is so much truth in that opposition. There can never be any defence of the goat against those who plant and garden. But there is a remedy, not hard to provide. Plenty of pounds for errant goats and a stiff penalty for redemption can do wonders to bring home their responsibilities to goat-keepers. It is a mistake to think that these raiders are ownerless vagrants. All goats are vagabonds at heart, but with the money value of adult animals what it is now, there is always somebody to whom the raider belongs. This somebody is singularly shy in coming forward to face his responsibilities, but it is unnecessary to go seeking him. Pounds can do the trick.



I should make it unmistakably clear that I approve of all measures to discourage goats in places where young forests grow. We need forests vitally, and even a rule sanctioning the snooting down of goats in areas where plantations are coming up can be justified. But it is ridiculous to

is lost in wood is gained, partly at least, in goat flesh—no forester will accept this as, the gain is not departmental!

It should be realized that there are thousands of miles of jungle and scrub jungle in India where no valuable timber grows, where goats can be grazed without much loss or damage. In the scrub around villages they find a living in the spiky shrub growth, and at this time of the year seek out luxuriant creepers—especially do they relish the *Cephalandra indica* and a species of *Daemia*. Unfortunately, they do not eat the *Lantana*—if they did, the forest department would become their firm friend overnight.



In rural areas where goats are not allowed into the jungles, the forest department can help considerably by selling pruned green fodder to goat-keepers at the cheapest possible rates. In fact, if this is done in all forest areas, owners may not resort to the surreptitious grazing of herds in prohibited places. Most rural goat-keepers are uninformed and unenterprising, and need education in several ways that would benefit their stock. It is easy, for example, to raise large plantations of quick-growing trees like the *Sesbania grandiflora* and *Pongamia glabra*, which stand pollarding well and provide foliage crops—I have never seen such plantations raised by co-operative effort. Again, these people do not understand the value of quality in the stud bucks that are run with their herds. Nor is Government provision of aids to rural goat-keeping considerable.

Those who blame goats wholesale for soil erosion would do well to study their actual contribution to the damage, and the methods of prevention possible. In sandy Hagari, near Bellary, where seeping water from higher areas around causes erosion, effective binding has been obtained by planting the area with *Acacia arabica* and *Prosopis*. There are any number of goats loose here, but they cause no harm to the plantation. They nibble at the *Acacia* but do not eat *Prosopis* foliage—they pick the fleshy pods of the *Prosopis* off the ground and also eat the thinner but equally nutritious pods of the *Babool*.

The quantity of green fodder that goats require can be reduced by feeding them dried leguminous plants (after the pods have been harvested) such as the horsegram and the Bengal-gram, and the pods of the *Babool*. They care little for grass, but can be induced to eat it.

So much for the common goat. But it is the milch-goat (of which we have several established breeds here, like the Surti and the Jumna Pari) that is a national asset and that can make an invaluable contribution to the country. Since milch-goats are stall-fed as a rule, even the forester can have no quarrel with them.



say, as some of the highest authorities in the land have said, that goats eat down grown forests and are the chief agents of soil erosion, and that they bring pestilence in their wake. When I hear such things I wonder if in our country the goat is not, to some extent, a scapegoat.

Forest trees have crowns well beyond the scrambling reach of goats and even in scrub jungle a herd never settles down to consume a tree (though it may be such a favourite with them as the *Gmelina arborea*) but walks restlessly on, browsing at a shrub here and a creeper there. It is the goatherds that do the damage, lopping down entire branches to carry home for fuel after their pets have stripped them of leaf and green bark. Experto crede, I have herded my own goats in the jungles and watched other herds there closely.

In a stretch of foothill jungle that I knew intimately for eight years, goats were allowed to graze but the cutting of wood, however dead, was prohibited except on permit. That jungle grew no thinner till the prohibition in regard to cutting wood was relaxed. It is now almost open scrub!

Of course goats do inhibit natural regeneration and underwood in forests, and bark greenwood to some extent, though I think that much ringing caused by forest dwellers like deer is ascribed to goats. Granted that they cause a measure of loss in forest revenue, it is still true that what



All experts on nutrition agree that the crying need of our infants and children is milk, which they get in wretchedly insufficient quantities, especially in the poorer classes. It is not often that the solution to a national problem is lost in a trite truism, but it seems to have happened in this instance. Everyone knows the goat is the poor man's cow, everyone bar the poor man.

True that Governments today are more alive to the value of milch-goats, and that goat farms have been established in a few places, but it is the poorer classes that need to realize the value of the milch-goat as the provider of the family milk requirements. With the exception of the Muslims (who have done much for our goats) our people need quite a lot of education in goat-keeping and stall-feeding, and the nutritive value of goat milk, before they will take to the idea. Practical demonstrations, inducements (chiefly by the provision of good stock at nominal prices and of aids) and propaganda are all necessary—involving much expense and effort. But I am convinced that any cost or effort will be well worth incurring because it is a fact that the family milch-goat is the cheapest, the quickest, the safest and the most practicable solution to the problem of malnutrition in our country, taking into consideration the conditions that obtain here rather than those that prevail elsewhere.

COUNTRY NOTEBOOK: by M. Krishnan

HOPOE



I USED to know a Mahratta head-mali, with decided ideas on seamliness. He would come to work in a crisply-starched khaki coat and a magnificent turban of tiger-striped mull, and was superior to messy digging or work on rough shrubs—such things he left to underlings. Each day he would spend hours on the lawn, quartering it systematically to locate weeds, inspecting each blade of grass with a dignified, critical decline of his beturbaned head. I have never seen a man look and behave more like a hoopoe.

You will not find hoopoes away from open spaces. They seem to suffer from a mild form of claustrophobia, for though given to perching in trees and the occasional reconnaissance of shrubs, they will not enter thick cover, and are happiest pottering about some stretch of unconfined turf. What they like is short grass, and just now, with plenty of it in garden and scrubland, hoopoes are common birds.



Most of the time they are on their feet, looking for grubs, worms and insects in the grass. The zebra-patterned wedge of the horizontal body and tail hides the trotting feet, so that a curious, clockwork effect marks their movements. Other low-to-ground creatures, whose short legs are hidden by the bulk of the body, also convey this impression, but perhaps it is most noticeable in the hoopoe. The jerky mannerisms of the bird, and its habit of scuttling over the ground in brief dashes, accentuate this illusion of mechanical propulsion.

The very full crest is spread out into a flamboyant fan, then suddenly shut tight into a spike counterbalancing the curved line of the beak, this gesture being repeated again and again, as if to relieve the tedium of the long, pedestrian search for food. There are many birds with highly emotional tails, but here it is the head that wears the crown that is uneasy. The folding and unfolding of the volatile crest express the entire emotional range of the bird, and each passing mood. I have seen a hoopoe indulge in this play with its crest six times within a minute, for no reason that I could discern, but there are rules regulating its conduct on certain occasions. When the bird probes the earth in search of prey, or when it takes off from the ground, the crest is shut close, and just before alight-

ing from flight it is fanned out as fully as it can be.

Some of the most fantastic frills and fancy touches in nature are to be found among birds—great casques, racket-tails, grotesque wattles and spurs, streaming pennants, bright bibs and redundant tail-coverts—as a rule these barbaric ornaments are associated with love, and are on display during courtship. But the hoopoe on the lawn is as strikingly decorative as any bird of strange plumage, though it is fulfilling a daily need and being useful to us—how rarely does beauty go with routine need and utility! As the bird moves forward on invisible feet, the slanting sun touches it, turning the fulvous sienna of its breast and crest to liquid gold, revealing fully the emphatic contrasts of black and white in the back. Then suddenly the crest is shut and the bird shoots up on slow, fluttering, broad wings, patterned even more rhythmically than its body.

Yes, the hoopoe has claims to remarkable looks, and like others with such claims, it is at its best in public. For its domestic life is a shocking contrast to what one might expect from a bird so richly plumaged and with such a patrician love of lawns. It nests in some recess, maybe in a crevice in the roof of an outhouse; the less said about the foul mess that is its nursery the better. The phrase is often used in a prefatory way, to hold forth at length on an unsavoury topic, but I shall be literal—I shall say nothing at all about that nest.

Thuggery In The Treetops



FOR the past month I have been hearing the thin, high, petulant "Ki-kiyu" of the shikra, and occasionally I have seen the bird in the dazzling midday sky—whirring along on quick, blurred pinions, then sailing in an ascending circle on still, round wings, the long tail spread like a half-shut, banded fan. There are two of these hawks about, that call and answer in the same querulous tone, though they seem to keep a certain distance apart. By these tokens I know they are a courting pair that will later nest somewhere near, probably in the clump of mangoes a quarter-mile away.

Ordinarily the shikra is not given to high jinks and public appearances, for it lives by thuggery and thugs do not proclaim themselves. It lurks in obscuring foliage, waiting for the unsuspecting victim to approach before pouncing down on it, and when it goes from tree to tree, its passage announced by the shrill twitters of little birds and the alarm cheeps of squirrels, it keeps low and flies direct and fast. Even when it goes coasting the fields, as it does at times, it hugs the contour of each dip and hollow and takes good care to keep below any line of trees, so that it may arrive unexpectedly at the next field. It is capable of determined pursuit and speed over a short distance, but furtive means and attacks from ambush are what it favours.

But just before it pairs and breeds, it takes freely to the air and goes soaring on high. Its harsh, grating voice then changes to a high, frequent "ki-kiyu", a call that is exchanged all day from the wing and even from perches between the courting pair. To human ears few bird calls are more expressive of tantalised impatience at the slow, tedious progress of love imposed by nature! However, the call is also used at other times. I have heard an angry shikra, attacking crows, repeatedly indulge in this call—it seemed louder and less plaintive then, with a challenging ring in it, but this was probably because I heard it from so near.

WHEN the sun sinks behind the trees and night is imminent, sparrows and other small birds flock to their roosts, and the shikra is well aware of this opportunity. It lies in wait, huddled, in some thick-leaved tree, and if a little bird alights near by it makes its plunge, flinging itself bodily through twig and leaf. Often enough the quarry escapes, and then the hawk may fly swift and low to another tree, or lurk on in the same ambush. There is no rule governing its behaviour on such occasions, except that it fails quite frequently in its dusk hunting. One February evening I followed a shikra from 6.25 p.m. till close on 7 o'clock—it made three attempts to snatch its dinner in that time, and having failed, flew away over the horizon when it was almost dark.

The shikra is capable of a fine courage, too, when there is need for courage. It can tackle mynahs and birds almost as big as itself, as the old-time falconers knew well, and it will fight even larger birds on occasion. Once I was watching a shikra eating a bloodsucker on the branch of a neem, when first one jungle-crow and then another came up and settled on a branch close by. The hawk resented their covetous glances and their sidling closer, and abandoning its prey it flung itself at the intruders with a torrent of "ki-kiyus"—I was amazed at this onslaught, for the crows were larger birds and by no means incapable of fighting, moreover there were two of them.

So impetuous was the attack that all three birds came tumbling down in a frantic ball of black and barred feathers, that rolled about on the ground below for a moment before resolving itself into two crows that fled for dear life and an angry, open-beaked hawk. Both crows must have been grabbed simultaneously, one in each taloned foot, for this to have happened, but incredible as it may seem, it did happen. I would much like to tell you how the victor returned to the hard-won meal and consumed it in triumph, but in fact this incident ended even more like a story. For while the hawk was routing its enemies, a third crow made an unobtrusive appearance on the scene, by a rear entrance, and flew away with the dead lizard even more unobtrusively!

M. KRISHNAN

COUNTRY NOTEBOOK

White Wings

EVERY evening, at half-past-six, the cattle egrets fly southward over my roof to their roosting trees by the water. They go past in a broken string, five or six first in compressed Indian file, flying low, then a long break, then five or six again following the same diagonal course over the roof and trees, picking up the threads of the flight that went before. Their flight is round-winged and leisurely, heads drawn in, yellow beaks pointing forward and black legs trailing behind; the full, curved wings never stroked in vigorous flaps but moved in an unhurried rotatory action, like boats rowed slowly with broad, bent oars.

There is grace enough in their slow white flight against the slaty sky, and a steady aim, but no hint of power or speed. Twelve hours later, soon after sunrise, they are back in the sky again, flying no longer in a set direction but circling in small parties, for they are now seeking feeding grounds. Their flight seems even weaker now, as they row around indecisively on hollowed, dazling wings, gliding occasionally before settling in some field. They look even more like the curve-winged white birds of Japanese screens in the sun than they did at dusk.

Bird flight can be very deceptive. Butterfly-winged hoopoes are capable of steep speed when pursued and long-distance migrants, like wagtails, often have a weak-seeming dipping flight. But the lassitude of wing of the cattle egrets is not illusory—they have not even fugitive speed. I have known this for years, from the time I was a young savage with a catapult. Among the savages with whom I consorted furtively in those days was an Anglo-Indian boy, bigger than the rest of us and an acknowledged master with the catapult. I have seen him bring down cattle egrets on many occasions. His method was to stalk a flock in a field and flush it from near; the birds would fly away, then turn in a sharp bend and come back, and as they came over some twenty-five yards above, he would let fly. It was useless winging a bird, it had to be hit in the head to stun or kill it, for any prospect of recovery. Perhaps an empirical skill guided the marksman's aim a shade ahead of the fleeing quarry, but I have never seen any other flying bird, even a considerably smaller one, fall to a catapult. There were many blank stalks, but I have also known my

friend turn home with three egrets from a morning's hunting. According to him the birds were insipid even in a curry, but not so bad as paddy-birds, because they did not eat quite so many frogs.

It is true that the cattle egret is far less dependent on frogs and fishes than its cousins. It belongs to the tribe of egrets and herons, professional anglers, and has the wading legs and dagger bill on extensible neck of the fraternity, but it lives mainly on the insects of green fields. It is a pastoral bird, much given to following in the wake of grazing cattle; it is an adept at seizing the grasshoppers and other insects that their hooves scatter, and everyone has seen it picking ticks and flies off cattle. Still, it has not wholly lost its tribal love of water, as its nesting and roosting trees will show, and occasionally it reverts to angling for tadpoles and small fry at puddles.

One would think that the birds that seek their meat in the air, like the peregrine, would find these slow-winged egrets easy prey, but I believe it is not often that a cattle egret dies this way. The pond heron, which flies faster and higher, sometimes meets this fate—the ancient Tamil curse, "May you fall headlong like the pond heron struck by the shahin", is based on fact. For one thing the cattle egret never flies far except when going out to feed and when returning to the roost, and even at such times it flies low—the hunters of the air prefer prey that will seek escape in flight, providing a depth of air below to make giddy swooping safe. Moreover, it is when the air is cold and slow, early in the morning and late in the evening, that cattle egrets undertake their flights—birds of prey are rarely on the wing then, for they like plenty of light, and warm air currents for soaring.

I must make it clear that I make no suggestion of intelligent apprehension, or dominant motive, in saying this, but I have been watching peregrines lately, and it seems to me that cattle egrets do choose their journey hours safely. There is no need at all to presuppose reasoning in a bird for the development of a habit that is beneficial to it, but, of course, it is quite possible that the flight habits of cattle egrets have nothing to do with the habits of birds of prey.

M. Krishnan

THIRST

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by M. KRISHNAN

IT was insufferably close in the machan. After sunset we had to strain our eyes to see the white form of the goatling, tethered in a clearing some thirty yards away. The bait lay down to repose, nothing moved and no panther came—which was, perhaps, not surprising, for our machan, though well screened by foliage, was a ponderous affair and accommodated two guns and a non-shooting naturalist. At half past seven a sudden breeze arrived over the harvested fields, stirring the tall, white jowar-stalks and crisp leaves, bringing the warm, stony scent of the sun-baked hills and just the hint of wild jasmine—a breeze that was even less restful than the stillness had been. At 8 o'clock we decided to call it a day, climbed carefully down, walked across the dusty fields to the jeep, and went home. None of us could summon any zest for dinner, but it was good to be able to unfold one's knees again, and the thought of a cold wash before the meal was refreshing.

The panther must have come on the heels of our departure. We had instructed the shikari to untie the goatling and take it home, but he had stopped for a smoke and when he went to the clearing there was no little white goat in it—only a bit of broken string, tied to a peg. He reported to us at once, and with no plan or idea in our heads we jumped into the jeep again and drove straight to the lone tamarind that held our machan.

Eyes in the Dark

Almost an hour had passed since we left it, and as we arrived at the tree the headlights cut a thick, blurred yellow lane through the spiky jowar fields. At the end of this lane, a hundred yards away, we could see a pair of eyes that glowed dull red in the feeble light; paired, glowing orbs that seemed to play hide and seek among the jowar stalks, now moving a little to the right, now reappearing to the left, till it was clear that there were, in fact, two pairs of them. A panther and her cub, obviously: that accounted for the systematic slaughter of the goats of the village that had made us set up the machan here.

There was no point in attempting a shot, or in trying to push the jeep closer. We were still debating the next move when the panthers provided it themselves. They got up and started towards us, following a line of bushes that divided one set of fields from another. Their path lay a little ahead of us, and the beasts, behind the cover of the bushes, were soon out of sight. Throwing caution aside the driver started the engine, and turned the jeep sharply around, so that the headlights were focussed on a thin patch in the hedge, about 20 yards in front of us.

I thought that no beast on earth, not even a very domestic cow, could have failed to take fright at the sudden roar of the engine, and so did my companions. But immediately on our agreement the panther and cub walked past right in front of us, right across the beams of the lights, taking us so much by surprise that it occurred to no one to shoot. We had a clear view of the beasts at the gap in the hedge in the yellow glare. The cub was three-quarters grown, but looked much smaller as it slunk past belly to ground, obscured by the grass. The mother did not bother to hide herself—she walked past arrogant and upright beside her cub, keeping herself between us and the youngster, as if screening it from an anticipated bullet by her bulk. She did not even turn to look at us.

After-dinner Drink

The shikari was sure that the beasts were making for the water, a small, shallow pond a furlong away. He said that they were so thirsty after their meal that they would go straight to the pond with a reckless disregard of all things, and though none of us really believed that they would ignore the thunder and blaze of an oncoming jeep, laden with excited men, now talking loudly, we decided to intercept them. The line of bushes they followed zigzagged to an earth mound, then dipped steeply to the pond—by following a cart-track we hoped to get to the mound before they could.

We reached the mound in a cloud of red dust and petrol fumes, and stopped to the accompaniment of a series of detonations—the headlights were right on that balding mound, but we could see no sign of the panthers there or as far around as the light spread out. We had taken a short cut, but apparently the speed of thirsty panthers was greater than what we had reckoned it at, or else their recklessness was less. We backed the jeep, preparatory to getting round the mound to see what lay behind it, and the panthers walked across its top and disappeared into the hedge, towards the pond.

Well, finally that panther was shot at the pond—an achievement of which no one need feel proud. The cub got away, frightened at

(Continued on Page II)

THIRST

(Continued from Page I)

last by the sound of guns, but I suppose my friends could have shot it, too, had they cared to. I have never seen, nor heard of, such an instance of utter disregard for men and cars by wild animals. It is true that the circumstances were somewhat exceptional—there was no other piece of water anywhere around to which those panthers could have gone for a drink; it was a dusty, thirst-provoking evening, and I am even prepared to concede that that goatling was a remarkably dry meal. All the same it does seem astonishing that those panthers, which were cautious when hungry, should have been rendered so blind and heedless by thirst.

THE SUNDAY STATESMAN MARCH 29 1953



SPRING IN THE JUNGLE

SUMMER has taken us by surprise in these parts. Usually its advent is both gradual and sudden; it creeps up through February and March with occasional halts during showers, and then, in April, leaps in with a formal little pounce. This year, however, the pounce was early and savage. In the last week of March we were still congratulating ourselves on a slow summer, in spite of dry weather, when one day the temperature shot up by almost 10 degrees, overwhelming us with a gasping lassitude. The optimistic, their senses enervated and lax, talked of a heat-wave—but with the coming of April and little abatement in the heat it is clear that this is no passing wave, but summer in all its glory.

And, quite possibly, it is also spring, the loveliest and least defined of seasons in our hill-dotted plains. We know when it is the rainy season—it is when the monsoons arrive, and their tardiness or prematurity only changes its timing. There is a brief winter in December; even autumn, if one goes by a certain mellow serenity in the air, is a definite season in many places, about October. But when is it spring?

The Vernal Season

Mere botanical knowledge cannot answer this question, and knowledge of the flowering peaks of garden plants is even less helpful, since we are not concerned with a horticultural season. Spring has symptoms celebrated in the classics, and it is futile considering it apart from its classical background. The setting in of a gentle, fragrant southern breeze, a restive, amatory urge, the blossoming of certain trees and the voice of the koel are the accredited tokens of the vernal season. The gentle southern breeze is a reality more refreshing than poetic fancy can ever be, as those who have been out on a sweltering day in April will know, but it is local in its balmy range. Other trees like the Asoka, and even shrubs like the jasmine, are listed in descriptions of spring, but undoubtedly the mango is the most symptomatic of them. And this year, in places far apart, I found the wild mango in lavish bloom, in the middle of February, when the numerous koels of those tracts were resting their voices for a while! Nor are Hindu festivals more specific in fixing the season—right from Holi (end of February) to the Tamil New Year day (in the second week of April) each of them has some vernal connotation.

here, a magnificent and saddening sight.

The Asoka (*Saraca indica*) is the most delicate of all red proclamations of spring, and is intimately associated with the season, traditionally, but the tree is not to be found in this jungle. From early in February the Indian Coral tree (*Erythrina indica*) was in bloom—an ugly tree, to my eyes, too florid and thick-branched, but the pure scarlet of its flowers is probably unmatched for brilliance. The Coral's bloody crown is enhanced by lack of leaf—but then, most trees flowering in the heat are leafless. The true "Flame of the Forest," *Butea frondosa*, is unforgettable when seen in the jungle. It was later in bloom than the *Erythrina*, but by mid-March it was in full flower, and, of course, without leaf. The rounded crown of orange-red flowers, with dark calyces, looks Chinese vermilion against the sun-browned hillsides, seen from afar—somehow, in an avenue, the tree never has scope for its vivid charm. The Gul Mohur (*Poinciana regia* or *Delonix regia*) was still in leaf when I left. In May it will be in extravagant bloom, its flat, flaming crown spread on outflung branches, blazing fiercely in the forest. This, too, required a wild setting for its flame—I have always thought it a pity that people should plant it along the roadside. Incidentally, the *Poinciana* has no association with spring in poetry or tradition—but the flamboyant *Butea* has.

I will mention only one other tree that I saw here. Late in February we were going up a hill-road laboriously. A recent fire had scorched the earth, there were heavy, black rocks on either side, and the sparse jungle was brown and seemed withered beyond redemption. Round a bend in the road we came suddenly upon a group of Yellow Silk-cotton trees—three crooked little trees, with burnt, gnarled trunks and tortured branches, the very tips of which



alone were purple and turgid with life, and bore great, opulent yellow flowers of the purest aureolin, with hearts of red-gold stamens. I cannot describe the contrast of the gracious, unstinted beauty of those flowers against that ground of charred and twisted desolation—we stopped wordlessly in our tracks to stare, unmindful of all else. To one blessed with greater faith than I, the experience could have been a revelation; surprised by such loveliness, a poet could have found lasting joy in the sight, in a recollective, Wordsworthian manner. But, after the first glad stare, what came to me was no sense of rapture or thankfulness, but only a sharp memory from a painful past, when I had been at the foot of the systematic botany class. I turned to my comrades in triumph: "*Cochlospermum gossypium*" I announced to them, with finality. However, they did not hear me, or if they did, they were wholly insensible to the bathos of my remark—they just stood there, staring. There are times when the impercipience of others is merciful.

Peak In Flowering

Perhaps that gives us a clue. Spring is an extensive season, marked by a florescent urge in nature. The herbaceous vegetation is in bloom for many months, but probably December-January marks a peak in their flowering. By March most herbs are drying up, and from February to June a number of forest trees burst into flower with dramatic extravagance. The voice of the koel, also representative of the season, varies with locality almost as much as the flora, but I have never heard the cock in full voice before mid-April. Spring proper seems to begin before summer, and to coexist with its earlier months.

Not all trees that flower in summer are conspicuous, and some, like the neem, commence to bloom in February and go on till April. The chaste, white blossoms of the neem are used in vernal festivals, but it is the red flowering of certain forest trees that seems most expressive of sultry, provocative spring. Some of these red-flowered trees are traditionally associated with the season, and quite three of them are known, vaguely and descriptively, as "flame of the forest."

Recently I was in a block of jungle which has its own character, no doubt, but which is so wholly uninfluenced by climatic extremes or any attempt at forestry that one can take its naturalness for granted. The jungle was dry and brown, most of the trees leafless, and there were vivid declarations of spring here and there. All the three trees called and miscalled "flame of the forest" are found here—and hotter flames as well. Forest fires, unchecked except by the conformation of hills, water courses and prevailing winds, take toll of the under-shrub every year. There was an extensive fire on the night of my arrival

M. Krishnan's Country Notebook

Midnight Visitor

SINCE the first warm breath of March, I have had my cot removed to the lean-to shed in the backyard. Here, with no walls to keep out the shy, occasional current of air, sleep is possible, but not before midnight. Till then, too mindful of the stillness and the regurgitated warmth from brick and earth, I turn the pages of a book listlessly, or pace the yard, or just sit sullenly on, indifferent to the beauty of the stars. Then a heaviness takes hold of my limbs the tepid stillness is oppressive no longer, I am aware of scents and sounds unnoticed before, and retire to bed.

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It is then that I hear the intruder: slow, shuffling footsteps, a halt, advancing steps again, then, from quite near, low, menacing grunts. I do not look to see what it is. In that drowsy bliss petty reason has no sway over thought—perception is sharp but in uncritical repose, and an overwhelming desire for the continuance of repose prevails, till sleep blots out everything. The senses do not jolt one awake needlessly, but sometimes they mock at wakeful logic. Some animal, a large animal, probably, but nothing familiar. Perhaps this is a desperate leopard,

a lame leopard dragging a maimed foot, driven into the heart of a residential area by hunger. I hear muffled grunting again, fling an arm over my head to keep out the man-eater's growls, and am instantly asleep.

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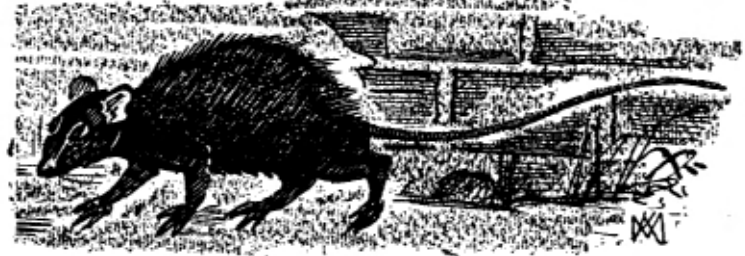
One night, when sleep was less insistent, I heard the approaching shuffle and sat up in bed. Before I could reach out and switch on the light, the brute was past the shed in a scurry, but though I could not see it I knew at once that it was a bandicoot—there was no mistaking its voice and gait, when one was awake. I sat up for it next night, and many times, since, I have watched it.

It arrives invariably after midnight, hugging the compound wall that runs by my shed and enters my neighbour's territory through a hole at the end. It is willing to brave electric lighting, but retreats in haste at the least hint of movement. Lying still in bed, with the light on, I can watch its ponderous passage through my yard. It comes and sits in the dim edge of the lamplight, a vague, hulking figure with close-set eyes that gleam balefully as it faces the illumination. It sits on its haunches like a kangaroo, or walks around,

reconnoitring. Satisfied at last, it comes on at a lurching trot, the massive body raised clear on the short legs the tail held rigid, an inch off the ground, not trailing easily behind like a rat's. Sometimes it moves in silence, but most often it grumbles and mutters villainously to itself, as it walks. If I click my fingers together it rushes back to the penumbra, then halts, crouches and peers ahead anxiously. After a while it advances step by apprehensive step, then gains heart and pace to its lop-sided run, grunting as it accelerates.

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All bandicoots are huge in the dark, but this is an exceptionally large specimen. It is a dark, greyish brown with the pink skin showing through in places, the mantle of coarse black hair on its hump back adding to the impression of bulk. Its timidity is due, no doubt, to its being by itself and on strange ground in my backyard, a certain lack of moral support and territorial feeling. I have the most unpleasantly clear recollections of a colony of bandicoots with which I was once forced to share a cottage for a month. They sneered openly at men, secure in their numbers, their sure knowledge of bolt-holes and disregard of filth. They had made the most elaborate arrangements for their nefarious life, beneath the flooring of that cot-



tage, and had acquired a depraved passion for soap of all kinds—belatedly I realize that with a slight variation in the title of a popular book, with strychnine in the soap, I could have got even with that infamous band. However, while the experience has left me with strong views on the low cunning, the insufferable hardness and the tunnelling abilities of bandicoots, I realize that all of them may not be such bold, bad creatures. Some may be less vandalistic about the house. My nocturnal visitor, for instance, has a decided preference for gardens.

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What does it do, night after night, in my neighbour's garden? Such constancy is often due to discovery of a store of food. I can understand, with melancholy resignation, even a bandicoot ignoring the flora of my compound, but what does it dig up and consume next door? Particularly am I interested in the horticultural preferences of bandicoots, for not much

is known about them. I have tried to find out what I can with the aid of a powerful flashlight and a little trespass, but on realizing that it is being observed or followed, the bandicoot disappears effectively into the confusion of bunds water-drains and vegetation that is my neighbour's garden.

Finally, I decided to ask the gardener. The man was most casual, but then that is his nature. I explained to him that a large able-bodied bandicoot was visiting his province each night, and spending several hours there, to judge by occasional grunts. He was not interested. I asked if he had noticed any heaps of new-dug earth, or damage to tubers and bulbs in the vegetable garden and elsewhere; the violent demise of seedlings and the plunder of fruit. A look of comprehension spread slowly across his face, he grinned a foolish grin and walked away, in obvious thought. I am afraid that, seeking an explanation, I have furnished a complete one.

Country Notebook

Mangoes In Season

by **M. KRISHNAN**

THERE are mangoes with high-born names, Benishan, Jehangir, Mulgova; there are mangoes with soft, seductive names such as Rumani or Dii Pasand: mangoes red as a sunset and yellow as a sunflower; big and small, early and late, rank as a jack and delicately flavoured as a rose-apple, so many sorts and conditions—and all of them fruit in summer.

Some, it is true, do well on the lower hills, but they belong essentially to the plains. In March one may hope for the first fruits, gummy and turpentine; but mangoes still, and with July the season is over. I have always thought of this peerless drupe as nature's compensation for summer in the plains.

All mangoes go back, ultimately, to the wild *Mangifera indica*: it is from this magnificent progenitor, with its robust spread of limbs and reckless profusion of sour, fibrous fruit that the cultivated mangoes come. No culture in this ancient land has received such close and worthwhile effort, such sustained cunning, as the evolution of our numerous mangoes. Having eaten most of them some time, somewhere, I know that it is idle to speak of the mango as if it were just one fruit—today it is quite 20 different kinds of fruit, each with its own character and culture.

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Science tells us that ripe mangoes abound in vitamin C so good for the system, especially in the tropics. I knew this long before science did, though I could put no name to the goodness.

There are still certain joys in this drab world of ours, among them the mango, but refinement can only nullify them. That is why I view with such stern disavour all attempts to reduce the mango to a table dainty, and, worse still, to can it.

The mango is not a fruit that lends itself to social occasions or nice manners. It must be consumed in privacy and without inhibitions, by oneself or with trusted friends. There is only one way to eat it, to bite the mango in its prime, to suck its potent juices, and devour its flesh with eager relish. No count must be kept of numbers, no thought for appearances must spoil the orgy.

That is the way to eat mangoes—but what good is it telling this to those who will eat their mango iced, in neat, ready-cut cubes, daintily with a spoon? To such people I have another suggestion—try a dusting of fine-ground sugar, just a spot of vanilla essence and a generous sprinkling of some peptonising powder next time.





Ignoring the many things that we get from the ripeness and immaturity of mangoes—the brown, laminated, sun-dried slabs of sweet juice, sherbets and fools, jams, chutneys hot and sweet, and pickles, ranging from the Andhra avakkai, with pungency matured over months in subterranean jars, to the bud-fruit pickle of the far South, nearest in flavour, not to other mangoes, but to olives in brine—ignoring all these delectable and poignant derivatives that depend so much on choice of the right sort of mango, the fruits themselves are so unlike that one can think of them as different kinds, and find in their versatile differences scope for the extremes of one's tastes.

The fruit I like most is a mango, the one that goes by the name Alphonso along the West coast, Badami in Mysore and Khader in the South—though in Banaras I have wondered, in my fickle mind, if the Langra is not, after all, the most delightful. And the fruit I care the least for is also a mango, a long insipid, smooth-fleshed kind that is also given to aliases, but which is most repulsive to me by the name Bangalora.

People, especially in the cities, are apt to think of mangoes as desert fruits, indigestible unless prudently rationed—how much these good folk have missed in life! The mango, in season, is not a dessert but a staple diet. I firmly believe that a fortnight's devotion to mangoes, in May, rejuvenates the system for the rest of the year.

Much depends on how one conditions oneself for the course (a highly individual business) during the early part of the season and the time-honoured practice of washing down the meal with a glass of milk—the milk, I believe, counters the irritation of the turpentinic astringency of the pulp next the skin.

Some unfortunates are allergic to mangoes: to these, I offer my sympathies. Some, again, do not care for any kind of mango—be on your guard with such men. Others, again, give up in regret and pain after a zealous go with a basket of Mulgova or Alphonso or some other variety equally unsuited to bulk consumption—to these I recommend a fresh trial with a milder sort, say, the Rasputri.



M. Krishnan's "COUNTRY NOTEBOOK"



THE BABY-SNATCHERS

HOW right it is that almost the first bird to be specifically mentioned in Press despatches by our National Committee for Bird Preservation should be the common Indian crow; and how too right (as the Australians say) that this mention should be dishonourable!

The Committee has urged urban and suburban municipalities to encourage charming and inoffensive birds like orioles and flycatchers, by decimating the too thick crow population. Crows, it points out, raid the nests of these innocents and devour their young.

Commenting editorially on this, a Madras paper offers its sympathies to the municipalities appealed to by the National Committee. The utility of crows as scavengers in municipal areas is stressed, and their claims to citizenship in our democracy boosted—moreover it is pointed out, with much truth, that it will be no easy job giving these hardened birds the push.

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Now, the National Committee is on very firm ground in accusing crows of having an inhibiting effect on the less common and more attractive bird life of any place. All the world lives on nature's provision for unborn generations, on the store of good food set by in eggs and grain, but crows are inveterate nest-wreckers and baby-snatchers, ruthless and untiring in their methods. They go nest-hunting late into the evening and, when there is a moon, even at night.

No doubt the National Committee means all crows found in urban areas and not the grey-neck exclusively, though its Press note refers only to the "house-crow". Actually the jungle-crow is almost as much at ease in town and city as the grey-neck, and is even more given to the massacre of infants. Moreover, it is more at home in groves and tree-studded gardens—a point that has bearing on this issue as will be seen later.

However, whether only one or both crows were meant, the fact remains that it is hard to discourage these birds. It is not as if they belong only to municipal tracts—they are the most widely distributed of all our birds. Furthermore they are long-lived, sapient, audacious and capable of learning much from actual experience, a thing that only the most intelligent of birds can do. They

are strong on the wing and fly long distances each day. Shooting them, snaring them, even the hanging up of a crow's skin as a warning and a moral are all only temporary measures. The birds are back the minute they realize the danger is unreal.

Apart from all this, even if a municipality could get rid of its crows, that is not enough to encourage birds like orioles and flycatchers to take up residence in the place. Such birds need fairly close tree-growth and plenty of leafy cover—they are very fond of mango groves. The kind of parks that municipalities raise offer little scope for their lives, for these are usually planted with deciduous flowering trees spaced far apart.

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Where there is close tree-growth and plenty of foliage it is noticeable that crows are much scarcer than in more open places. That, perhaps, is the secret to success in the encouragement of the kind of birds that the National Committee wants the municipalities to foster.

I cannot help feeling that though sound in its ornithological advice on this issue, the National Committee has addressed it to the wrong parties. The owners of large private bungalows are far likelier than municipalities to take pride in the presence of beautiful and melodious birds in their compounds—there is no law prohibiting private parties from discouraging crows as much as they like, and living on the spot they can wage this unequal war with less strain and futility.

What the municipalities can and should do is to provide spacious parks with plenty of trees like the mango and the *Ficus religiosa* besides the invariable *Poinciana regia* and cassias—in this way they can provide the woodland type of cover beloved of orioles and many other charming birds. In built-up areas where there are no large, rambling compounds with low-to-ground evergreen trees, it is the roadside avenues that sustain arboreal birds, somewhat inadequately. If the National Committee can persuade urban authorities to raise and maintain parks of the type described it will have done a very real service to the struggling bird life of built up areas, besides adding a welcome touch of green to these grey localities.



IN a story that I read recently the climax is reached when the narrator, in his boyhood, has to cross a haunted pathway in the dark. The suspense mounts as he nears the place, then, unable to face it, he turns away from the horror and walks backwards, his senses taut with apprehension: "My ears were pricked up, ready to listen to the slightest rustle. A leaf dropping, the night heron darting into the still night with its shrill call 'tweet, tweet, tweet' would have seen me drop dead on the ground."

Having done most things the hard way all my life, I fear I will have no easy death, but even I would get a pretty considerable jar were I to hear a night heron rise into the obscure silence with a shrill "tweet, tweet, tweet!" But were its cry far more eerie, a sudden, raucous, floating "w-a-a-k!" from above, I wouldn't turn a hair, for that is the bird's call.

In many Indian languages, the night heron's name is onomatopoeic—in Tamil, for example, it is called "Vakka." Perhaps it is the most identifiable of the lesser herons and egrets, a dumpy heron, grey above and white below, with a black crown, nape and back. There is a silky crest of long black feathers drooping over the humped shoulders, but neither this nor the colour of nape or back is visible as one views the roosting bird from below or at eye-level, though the black crown is prominent. In fact, it is after sunset, when the sky turns a neutral tint, that one usually sees night herons, and in that light it is a wholly dusky bird with even the characteristic white of the under parts a lighter shade of grey.

However, it is not by observing details of plumage that one knows this bird—the heavy, dark contours of head and beak, the blunt, hollowed wings rowing a steady path through the dusk, and the hoarse, airborne "w-a-a-k!" are unmistakable.

Being nocturnal and crepuscular, night herons spend the day in heavy repose in their chosen roosts. But when they breed, they are day herons as well, for the ceaseless yickering of the young drives the parents to seek food for their insatiable brood throughout the night and day. Breeding is a wearing pastime with most birds—with night herons it is positively exhausting for all concerned, including neighbours.

Usually the breeding sites and roosting trees are well away from human habitation, and often near water, but the birds do not hesitate to locate their nesting colony in a built-up area if other conditions suit them. In June 1946 a colony of some 150 night herons nested in mango trees in the back yard of a house in the heart of congested Madras—there was a tidal creek not far away and a sluggish canal right at the back, ample inducement to the hard-worked birds to pitch on this spot.

The sustained clamour of the young and the continuous arrivals and departures of the adults rendered sleep almost impossible for the occupants of neighbouring houses. After futile private attempts to move the birds, the residents lodged a complaint at the local police station. Our unsung police force, which is capable of dark feats of public duty, rose nobly to the occasion. A constable with a

shotgun visited the scene of the offence and fired a few rounds into the loud thick trees, bringing down a number of birds, and the rest of the colony took wing in a hurry, never to return to this homestead.

In contrast to this feverish whole-time activity of the breeding night heron, I must add that occasionally the bird sleeps soundly through the night, in spite of its name—when the hunting has been good in the evening and early hours of darkness. One of the most vivid recollections of my youth is the capture of a slumbering night heron on the parapet wall of my house, around midnight.

It stood on one leg, its head lost in its huddled shoulders and fluffed plumage. It was so fast asleep that when I switched on the powerful terrace lamp, right above it, the sudden glare failed to get through to its drowsing senses. Only when I took it in my hands did it awaken with a loud croak of protest. I held it as one holds a pigeon, with its flights and feet pinioned between my fingers so that it could not use them, but it got away by an undignified and smelly manoeuvre, by being abruptly and fishily sick. Best to let sleeping night herons sleep.

M. Krishnan's Country Notebook

EGRETS

WHERE the water is shallow and not too still, in estuaries and by sand-spits and the margins of lakes, the Large Egret seeks its patient living. It is a solitary bird, and likes a fair stretch of knee-deep water—but so do other waders, more sociably inclined. Even when it finds a quiet creek, away from ibises and spoonbills and storks, it is rarely altogether free from the companionship of its cousins.

From these cousins it is distinguished by its size and carriage. Our egrets differ from herons in being all-white—one of them, the Cattle Egret, has turned pastoral, and moreover it does not belong to the genus *Egretta*. But the Large Egret, the Smaller Egret and the Little Egret are all waders and all white, with exquisitely dissected plumes adorning them during the breeding season.



It is not easy to tell the two lesser egrets apart at a glance, highly sociable birds both and often found in the same places; especially is the difference between them slight when they are not breeding, and the Little Egret lacks its distinctive, drooping, nuptial crest. The yellow feet of this bird contrast sharply with its black legs and are conspicuous in flight, but this may not serve to distinguish it always. However, there is no mistaking the lone Large Egret.

If you see a gleaming white bird, the size and shape of a grey heron but more daintily made stepping warily over the shallows by the shore line, you may safely put it down as a Large Egret. Its long, slim neck is thrust well forward, and even in repose it stands less upright than a grey heron—when it walks, this horizontal leaning is even more pronounced and at times the bird seems almost on the point of toppling over!

Not that it is ever in danger of losing its balance. It is a canny bird and knows that fish and tadpoles, and such under-



water things that it hunts, are suspicious of sudden splashings. So it lifts its black feet clear of the surface, and moves it carefully forward through the air before setting it down gently through the water again; it cranes forward and prospects the shallows ahead, and when the prey is near enough a lightning plunge with the poniard bill secures it.

After summer, this deft bill turns from black to yellow, and with the plumes of love fallen, the humped back and abruptly tapering end of the tail are plainly visible. A Tamil poet who lived some 2,000 years ago, has likened the shape of an egret standing huddled in the water during the rainy season to the bud of the white water-lily—from afar and from June to November the simile seems strikingly true to life.



Incidentally, the aigrettes that were once so much in demand among fashionable ladies in Europe, are the nuptial plumes of egrets—the Smaller Egret being the most abundant provider. The plumes were collected humanely, without injury to the valuable birds, at egret-farms near villages. With aigrettes going out of fashion in the West, probably on account of a false sentimentality, egret-farming has ceased to be a thriving industry. The birds, however, continue to thrive and are rarely disturbed at their breeding sites by villagers, who consider the water fouled by a nesting colony excellent for the fields.



ASSES IN AUGUST

It is in August that I sometimes wish, cravenly, that I lived in a smart, snug, ferro-concrete house. Till then my ramshackle cottage is good enough for me—I often view, with pride, the uneven, time-stained brown of its assorted tile. But the first downpours of August discover each leak in the old roof and create fresh ones, and non-plussed by the manifold cascades, the sudden pools on the floor, I think this unworthy thought. Then I locate the leaks and distribute catchment-vessels beneath them, and as the rainstorm continues unabated, console myself with the likely plight of others, more exposed.

In this moralistic consolation, strangely enough I do not think of the thousands of humans leading less sheltered lives than I, so much as of domestic stock. In particular, the picture of asses drenched by torrential rains comes to my mind, a picture that goes back to past Augusts.

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Other domestic stock suffer less in such weather. Cows and bullocks are provided with sheds as a rule, even the water-loving buffaloes have their sheds; sheep and goats are worse off, but they huddle together, gaining a measure of co-operative comfort and protection. It is the asses, for whom nobody cares, that are truly to be pitied. Turned loose on the village common, they know by bitter experience that no one will tolerate their entering a garden or any sort of shelter. When it rains, they retire to some ruined wall and stand patiently besides it, waiting for the elements to exhaust themselves.

For years I lived near just such a wall, at one end of an open field. Many times I have seen asses hugging that wall in the rain, miserable, wet through and cold, waiting with endless fortitude for the downpour to cease. If I tried to drive them into my goat-shed, they would run shudderingly away, as if they apprehended that I disputed their right to that wretched wall.

My friends found my solicitude for the beasts vastly amusing, and hinted at hidden deep-rooted affinities; their gibes were sly and often really witty as I, the object of their humour, must confess, but I have felt shocked at their utter callousness towards those poor, unhappy animals. It is strange how the best of men can never feel beyond a stupid, traditional prejudice against asses.

They used to argue that the

donkeys were tougher than I sentimentally imagined, and could do with a thorough wash once in a while. There is much truth in what they said. Our asses are hardy; they have to be, to survive at all. But only wishful ignorance can believe that they can take no harm from exposure to wind and weather. I have known donkeys develop a horrible, racking cough in the wetter months, and I have known them die from sheer lack of attention and shelter.

You should realise that everyone of these beasts is owned and worked, and earns, more than its keep. Also, that even after they have outgrown their shaggy, whimsical foalhood, asses are intelligent, patient, sensitive and very responsive to kind treatment. Their sureness of foot is well known and over hilly paths they are unbeatable as pack animals. True, their great potentialities as beasts of burden, handy size, and versatile capacity for being trained have remained largely unexploited in our country, but they are worked all right.

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They are driven hard and made to carry enormous loads, and treated brutally rough. Often they are severely branded, or have their ears and nostrils mutilated, as marks of ownership. Only, they are not worked all the year round and every day of the week, and when they have no burden to carry they are turned loose on the waste outside the village to get themselves some sustenance, after hobbling their forefeet. It never occurs to their owners that a handful of grain or even kitchen waste, to supplement what they can get out of the mean scrub, would be deeply appreciated or that they like shelter when it rains, especially at night. And unless an ass is acutely and obviously ill and its master thinks he can save a valuable beast by some cheap measure, it never gets any attention.

That, of course, is the compensation that the Indian ass gets for its life of suffering and neglect. In between bouts of too heavy work it has its freedom, after a hobbled fashion. I say this with no bitterness. Freedom is as dear to a beast as it is to us, and it will face odds even more stubbornly than we do to enjoy its liberty. Only, in August I wonder if a little food and shelter would really circumscribe a donkey's freedom, and if we cannot, even in a free country, insist on its being less shamefully neglected by humanity.



"JUNGLI PHAL"

by M. KRISHNAN

ABOUT this time of the year, for many years, my elderly cook used to warn me of the dangers of eating all sorts of "jungli phal" by which term she meant the custard-apple, the jamoon (*Eugenia jambolana*) and the wild, sharp *Carissa*, fruits now in season in many places. Particularly was the good woman against the first two.

The custard-apple, I was told, promoted phlegm and the rheumatics; it was a fruit one should guard against at all times, but especially in seepy September. The jamoon was worse. It caused, besides sore throats and bronchitis, sudden, debilitating fevers; a dis-

COUNTRY NOTEBOOK

tant cousin of hers, who was fond of the fruit, had died young. Moreover it was *infra dig.* for a man of my years and status, an officer of the Government, to indulge such immature, boorish tastes. Latterly these sermons became so insistent that I had to use much furtiveness in my fruit eating.

I am no longer under Sita Bai's motherly surveillance, for I have left that place and she this world—and I am an officer no more. I eat my fill of custard-apples and jamoon, with abandoned openness. But somehow they have not quite the old relish.

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There was much truth, though, in the elderly advice. A surfeit of custard-apple is not calculated to improve one's health. However, it is not often that one takes it in any quantity, for it is a fruit of which one tires quickly. If you like its somewhat musty flavour and have not eaten it that way before, you should try it in an ice-cream. Much of the prejudice against the fruit is due, I think, to the fact that people often eat it overripe and are not choosy over their custard-apple. The polygonal "cells" on the rind (denoting each carpel) should be few and large and the fruit of good size. It should be taken off the plant while still firm and stored in dry grain till just ripe—much of the charm of this artless fruit lies in its being properly ripe. The way to get good custard-apples is to collect them in person from carefully selected shrubs or, if one is an officer, to employ a confidential agent for the purpose. People rarely sell the best custard-apples they can find. They eat them.

Of the jamoon I can speak with greater enthusiasm. This, too, varies considerably from tree to tree, even more than the custard-apple, and is often eaten overripe. What is sold is fallen fruit with bruised skin, collected from under the tree. The jamoon must ripen on the tree and is at its best when just about to fall, pendulous and a glistening purple-black. An ideal arrangement would be to wait beneath a tree of known quality and catch the fruit in one's mouth as it falls, but ideals are hard to achieve in this cursed world. Therefore, pick your tree and get someone to climb it and bring down the ripe fruit.

The jamoon differs as much in size as in quality. On the hillslopes it is possible to get a long, thick variety twice as big as the fruit of the plains, dark-fleshed and exquisitely flavoured. To my plebeian palate no lichi or mangosteen has the sweetness of this fruit. On the plains the trees yield smaller and more astringent fruit, and some of these are hardly worth the eating. However, one need not despise the jamoon of the plains provided it is of fair size and good flavour. Sprinkle salt and powdered red chilli over the fruit and wait for an hour, and its astringency will be cured—this treatment is not to be thought of for choice hill-grown fruit.

The world consists of those who like the jamoon and those who do not. Among the addicts are the aborigines, the shaggy Sloth Bear and other denizens of the jungle. The people who cannot abide the

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fruit are often highly refined and intellectual—they find no joy in life.

Another delicious and wholesome fruit, now in season, is the guava. Being marketable, it is frequently cultivated in orchards and there are "improved" varieties, mild, white-fleshed, yellow-skinned and big—excellent for conversion into jam or jelly. I think. Give me the small, green-skinned, red-hearted country guava. I believe I am correct in saying that the country guava is far richer in vitamins than the cultivated varieties. Anyway, it is better eating. There is a pear-shaped kind, very small and red and often grown in the backyards of villagers. The tree is little better than a shrub and its yield very scanty, but make friends with the man who owns it.

There are many other trees and shrubs in the jungles that are in fruit just now, but I shall mention only the spiky *Carissa carandas*. It is very sour when green, less sour when ripe, and too acid for consumption as it is—there are other *Carissas* that bear sweeter fruit. However, the green fruit of this bush can be converted into a piquant and stimulating pickle with powdered chilli and other spices and just a little oil. According to South Indian traditions this fruit (even in a pickle) is superlatively good for the liver. I think there is sound sense in many of our traditions regarding things to eat and I am sure that even my old cook would have agreed that it is very important to keep the liver in good order!

MUSK-RATS

AT 10 o'clock at night I hear a faint, quick whine, like the sound of hydrogen ignited in a glass jar, and I know that the musk-rats have arrived. There are three of them, graded in size like Goldilocks' bears, big middling and little; and I think they live well away from my sleeping shed, for otherwise I should see and hear them much earlier. Musk-rats are out as soon as it is dark.

I cannot tell which of the three will come in, but know which way it will enter—not by the inviting, doorless doorway, but through the drain-hole in the side wall, below the table. I adjust my highly adjustable table-lamp to cast a strong, even, shadowless light on the floor beneath, the better to see my visitor. A sharp, pink muzzle appears at the drain-hole, describes a quivering circle, then disappears with a sudden, thin squeak. I wait and watch, for I know it will return, questioning the air with its sniffing, circling nose before it enters the room.

After a while I resume the laborious writing work that I have undertaken in a rash, academic moment, and the musk-rat comes in unnoticed. Deliberately, in slow-motion, I can reach out and take a soft pencil and the sketching-pad from the table without scaring it, but by that time the restless creature might move on. So I try to get rapid sketches down on the foolscap with my fountain-pen. Dozens of such hurried, untidy sketches interrupt the pedantic lines of the writing, and it is from them that the illustration is taken.



For a month now, off and on, I have been watching these creatures and experimenting with their tastes. Of course they are not musk-rats. They are insectivore and shrews and no sort of a rat. Somewhere in North America there is a true rodent musk-rat, valued for its pelt, but no rat ever had the grey velvet coat and pink feet and tapered, sensitive nose of this shrew.

Moreover, in spite of what the text-books say, even the musk of its name is bogus. The occasional powerful odour, discharged from lateral glands when it is excited, has no musky smell—it has a heavy, clinging staleness, like the essence of the air of a damp, long closed cottage. Formerly it was believed that this mustiness could permeate glass and taint wines and beer by musk-rats running over the bottles. Now, of course,

the termites swarmed early, a musk-rat came out to feast on them in spite of the sunlight. McMaster saw one feeding upon a scorpion and Sterndale (who cultivated the acquaintance of these shrews) tells of another that "attacked a large frog". It seems to hunt more by smell and an exquisite tactile perception conveyed through its whiskers than by sight, for it is short-sighted as one might guess from the size of its black, pin-head eyes. However, it is difficult to be positive on this point, and I think Sterndale overrates its myopia. It dislikes bright light and is probably dazed by it, but even in such lighting it can see objects from near, even immobile objects. I am convinced that it can see farther and better in dim light and darkness.



And what else does it eat, besides insects and meat? McMaster says, cautiously, that he has known it eat bread, and Anderson that it will not touch grain. I can add to this. Experimenting with my visitors I found that all uncooked grain and pulses held no attraction for them. They were equally indifferent to sliced plantains, guavas and other fruits, but I would like to watch their reaction to apples—a wish that can be gratified easily. Boiled presentations and then, too, in rice they inspected with interest, sniffing and mouthing it, but would take it only after repeated small quantities, just a few grains.

I have known for years that they like coconut, for sometimes they are caught in rat-traps baited with toasted coconut. They ate pieces of coconut with avid relish, carrying a piece to the drain-hole and devouring it there before returning for another. They had little enthusiasm for bread per se (it seems very likely, to me, that bread was a less insipid thing in McMaster's days), but it was comic to watch their reaction to bread smeared with honey. They went for it as if it was some live prey, attacking it with quick, sideway bites and worrying it, pouncing in again and again to the attack. That of course, only showed their insectivorous habit and unfamiliarity with immobile food—worrying shakes and fierce bites kill insects (some of which can bite back nastily) most efficiently. They treated a cheap sort of sweet biscuits in the same manner, but were completely indifferent to imported ginger-nut biscuits.



we know better. We know that no smell can get through hermetically sealed glass (as proved by the more insistent perfumes, which remain providentially inside the stopper) and people will no longer throw away a dozen bottles of beer on this account as in the wicked, wasteful old days. I know several men who wouldn't mind a suspicion of musk-rat in their beer if only they could get it—the beer, I mean, not the smell.

Probably, this odour gives the musk-rat a measure of protection besides serving social and personal ends I notice that the savage young tomcat that deigns to live with me is not interested in musk-rats, though he hunts most small animals that he sees—rats, squirrels, birds, geckoes, skunks, and even bloodsuckers that he rarely eats. However, this useful shrew has other enemies. "Eha" found the ground beneath the nest of screech owls littered with musk-rat bones.

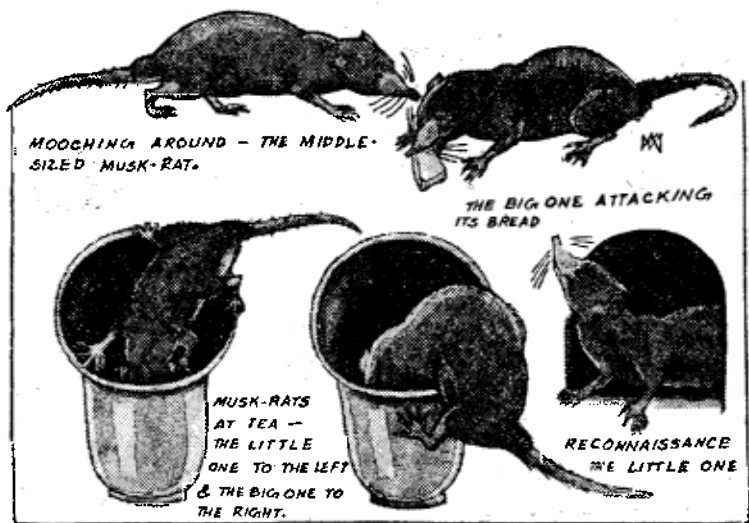
Being an insectivore, the musk-rat hunts all manner of insects, crunching them up gleefully. I remember that one evening, when



The one discovery I made was that they have a decided sweet tooth. In fact, it was this that first brought them to my shed. Here I must digress from the curious eating habits of musk-rats to my own curious habits. I like hot, strong tea the last thing at night and drink it, not decently out of a cup, but from a tall, polished bell-metal tumbler. This tumbler is then deposited on the floor beneath the table, and it was the sweet dregs of the tea that attracted the musk-rats. It was most amusing watching them get at it. The little one had no trouble—it climbed on to the mouth of the tumbler, then let itself in, hanging on to the rim with its hind feet, and drank slowly, not lapping up the tea but wetting its lips and then licking them.

The other two were too big to adopt this method. There is hardly any difference in size between them except that the big one is thicker in body and has a

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MUSK-RATS

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thicker, more muscular snout. They tried to reach down to the bottom of the tumbler while clinging with their hind feet to its outside, balanced in a scrambling posture on the rim, but sometimes they would fall off or plop right in, to climb hastily out with a "chik" of surprised irritation. When I substituted the tea in the tumbler with a few spoons of sweetened malted milk, the musk-rats displayed a quite frantic liking for the change. Especially was I amused by the antics of the big shrew—he had to balance his bulk on the rim to reach down, and in his eagerness for the drink he frequently lost his precarious hold. The "middle-sized" one, being less heavy, was less awkward.

I found that when these shrews were preoccupied with their malted milk, I could apply my finger to their tails and slowly hoist them up by a steady movement, without their noticing it. Nor did a tap on the tumbler with my pen affect them in any way. But sometimes, when I had to take my hand over the tumbler, they grew aware of it and were so frenzied and shrill in their exits, and afterwards so mistrustful and shy, that I did not persist with this experiment.

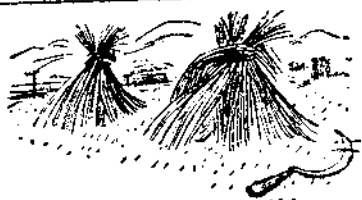
The illustration, being drawn from odd sketches, does not show the three shrews in proportion. Actually, the big one is twice the bulk of the little one, as the sketch of them at their drinking will show (these two sketches are to the same scale). I presume the little one, which is light grey in colour and seems grown, is an immature female and that the other two are males, though I am not sure of the "middle-sized" one. Musk-rats vary much in size and breed while still immature. These discreet creatures bear no obvious external tokens of their sex,

so that it is always difficult to say how far grown a musk-rat is or guess its sex. However, I am sure of the big one. His chunky build and Roman nose have a very masculine look, and his size proclaims his sex. Female shrews never reach his proportions.

Apart from their occasional odour (which is nauseating, but it passes) the one snag to giving musk-rats the run of the house is their shrill volubility. Normally, while questing, they indulge in occasional low squeaks, but when a family party is foraging (my musk-rats seem unrelated, they do not come in together) the conversation becomes quite high-flown and general. And when they are alarmed they let out a series of electrified squeaks that is nerve-racking, and jabber in shrill voices for a long time afterwards. Musk-rats are highly excitable, but if they are not molested they tame easily, which means that they are less prone to smells and squealing.

These shrews are domestic animals and would be quite lost without our homes and gardens and drains. To thousands of Hindus (especially now, with the Ganapati Utsav just past) the fact that the musk-rat (and not any other animal) is the authentic "vahana" of Ganesha must have significance and promote friendly feelings towards it. The Plague Commission pointed out, long, long ago, that musk-rats were most beneficial in the house because they are intolerant of rats and drive them away. Even otherwise a creature that gives us such splendid service by reducing the cockroach population of our homes and other undesirable insect invaders deserves every encouragement. I should add that the musk-rat is completely inoffensive towards man, and never bites those who prefer to sleep on the floor.

COUNTRY NOTEBOOK



by
M. KRISHNAN

A raised platform of bamboos is built on poles driven into the middle of the field. This is five to six feet high and usually has an arched sheltering roof of bamboo mat, like the top of a bullock-cart—in fact, the old tops of bullock-carts are often used for this purpose. As soon as it is dark, the ryot retires to this shelter with his elementary bedding, a lamp, something to eat, and his dog, if he has one. The dog is tied to a post, and he climbs into the shelter and makes himself comfortable, but tries to keep half-awake. When he suspects that the pig are near (his dog gives him sure warning) he sets up a sustained shouting and flashes his electric torch (if he has one) in the suspected direction—this shouting and flashing of lanterns and torches is taken up by watchers in neighbouring fields and the entire area is alerted.

Destruction

I have known pig feed unconcernedly in a groundnut field where there were men and dogs, keeping in the dark, beyond the reach of the lanterns. Moreover, though the cart-top shelter is good enough for a drizzle, it is no protection in heavy rain, as I know from experience. When heavy rains threaten, the ryot makes hasty tracks homewards, or towards the nearest hut, and abandons his vigil. The rain does not stop the pig—the more slushy the field, the easier it is for them to rootle for groundnut.

Unless you have seen it, you cannot believe the damage a few pig can do to a promising three-acre plot of groundnut overnight. They literally plough up the field with their snouts, and are most wasteful in their feeding. They cause less destruction to jwar, but are fond of the tender cobs.

Last month I followed the tracks of a large pig for nearly two miles, through cultivation and wasteland. The thorn fences had been no barrier, and it had eaten its fill of young jwar, pulling down and trampling the crop to get at the cobs. I was surprised that the spoor led straight through a small plot of unguarded groundnut, till my companion (a lad belonging very much to that soil) pulled out a plant to show me how hard and solidly insipid the groundnut was. Pig love the groundnut when it is sweet, tender and creamy, and tender, milky jwar cobs. I can understand this preference. I, too, like them that way.

The best check against crop raiders, of course, is their natural enemies, the tiger and the panther. In the area I speak of, the sudden, shy reluctance of pig to go raiding abroad at night is taken as the sign of the advent of a tiger to the hill-jungles, and I have never known this sign false. Panther, too, are very fond of pork and know very well what pig to tackle—as an old Boya pig-hunter pointed out when I chaffed him over the size of the infant boar that he and his friends brought home in triumph, it is the little ones that grow up into master boars and prolific sows. In places where pig are a serious threat to cultivation, the simplest and best remedy would be to prohibit the shooting of the greater cats. But this is never done.

It had rained all day on Sept 30, 1945, and we were returning home through the night's drizzle in a car. Nearing a section of the byroad that had turned into a bog the car was slowed to a crawl, and suddenly a solid mass of mire stood up in front of us and halted, directly in the glare of the head-lights. There was a bloodthirsty boy with a loaded rifle in the car, but even he was so taken by surprise that he could do nothing immediately. Slowly it dawned on us that this red, quelling, massive figure before us was a pig that had been wallowing in the ditch beside the road; with this comprehension a shot rang out and the pig sank into the bog again. I had to carry the exulting boy on my shoulders to view the trophy, for he had clean clothes on (I had not) and the mire was ankle-deep. I can remember standing there, in the drizzle, with the mound-like carcass in the slush at my feet and the boy on my shoulders, flashing a torch to inspect the late pig. It was then that we saw its tusks and remarked their great size.

Old And Gaunt

That boar was old and gaunt, very long in the body and with a huge head. There were two healing gunshot wounds on its quarters, inflicted by some vigilant ryot a week or so previously—that accounted for the animal's leanness in times of plenty, and also, probably, for its reluctance to leave its wallow, though pig are fond of the mire even when uninjured. I could not measure or weigh the boar, but estimated it was not much under 250 lb., in spite of its emaciated condition. Pig come pretty big in that area.

Visiting the same hill-jungles late last month, I was again in time for the local pig season. The jwar was high above my head and the cobs were just formed and tender, but the groundnut had been harvested in most fields and what was left was hard and fully mature, not creamy as young groundnut is. The ryots in the hillside cultivation were sitting up each night to scare the raiding pig—this is quite a ritual in these parts and not always an effective one.

WONDER if you can tell what this is. If you have seen it before, in the rough, you will know it at once; but many may not have seen it at all or else only when mounted in silver to frame a photograph or put to some such ornamental use, when it loses its strong identity. This is a photographic reduction of a tracing from the right lower tusk of a wild boar shot in the last hours of September 1945. The tracing was made three days later, and the tusk measured exactly 10 inches along its outer curve—a remarkable tusk by any standard.

It is the canines of the lower jaw that grow outward into formidable, gashing tusks in boars. They grind against the much smaller out-curving tusks of the upper jaw and so are kept razor-sharp, for ripping. Sometimes a boar may lose its upper canine accidentally and then, with nothing to wear and limit it, the corresponding lower canine grows in a malformed circle. Such tusks are never taken into account in reckoning the size of a trophy. According to Rowland Ward the record for India is a tusk from Josrama measuring 12 5/8 inches along the outer curve, and the best that Delhi, Ceylon, Burma, the Central Provinces, Meerut and Telam have produced is a malformed 10-inch tusk from Delhi—the others are between 9 inches and 9 7/8 inches. The tusk shown here is quite exceptional, especially when its thickness is taken into account; its fellow, from the left side of the jaw, matches it perfectly but is shorter, being only 9 1/2 inches long.

I remember this pig. In the area where it was shot, the groundnut is harvested in September-October and, rains being punctual, war heads begin to set about this time. Pig become a menace to the crops then and invade the villages at night, retiring to their impregnable cover in the hills before daylight.

M. KRISHNAN'S "COUNTRY NOTEBOOK"

The Leopard And His Spots

Lord, suffer me to catch a fish
 So big that even I,
 In telling of it afterwards,
 Shall have no need to lie.

SO runs the Fisherman's Prayer. With two words substituted for "catch" and "fish" this could also be the prayer of all big game hunters. Many of them, of course, may be unaware of the wish in their hearts—till they have bagged something near record size.

I am no big game hunter; only a naturalist. The difference does not lie merely in my comprehensive lack of skill with gun and rifle. I am apt to find a smallish tiger quite as exciting as one that would be (when dead) a clear 10 feet between pegs and, worse still, a jackal equally interesting on occasion. The compensation for my lowly estate is that I am unlikely to magnify the proportions of an animal that I watch or of one, shot by someone else, that I measure or weigh. This personal and defensive preface is necessary because I am writing of the most versatile and varied of big game beasts, the leopard or panther (the terms are synonymous now, and the Indian and African leopard identical, specifically).



Which is the record specimen of the panther? This is a question that is simultaneously easy and almost impossible to answer, with certainty. If newspaper reports can be trusted, the Hyderabad monster puts all others of its kind, and almost all tigers, to shame. According to a news agency report widely circulated in South India, Mr M. K. Vellodi, then Chief Minister of Hyderabad, bagged a man-eating panther at Narsapur on May 13, 1951, that was 10½ feet long.

However, if we are to limit ourselves to prosy facts, the question is hard to answer. In assessing size certain difficulties arise with panthers that are less difficult with most other creatures, including the tiger. For even where length between pegs and weight are both available (which is unusual), the length of the tail varies so much in panthers that unless it is also specified one can get no idea of the bulk of the specimen. Dunbar Brander, a most trustworthy authority, says the tail may vary in length from 28 to 38 inches, and since this is independent of body size, one can never say that even a 7½-foot panther is a large specimen without knowing the length of its tail.

Again, weight is affected by the condition and whether or not the panther has killed and fed recently. A really big panther weighs about 150 lbs., and some 25 lbs. of this weight may depend on whether it is gorged or unfed—in a tiger there would not be the same proportionate difference on this account.



Chilkanahatti measured 7 ft. 1½ in. (tail 32 in.) and 7 ft. 5 in. (tail 36 in.) and weighed 132 lbs. and 121 lbs. after 24 hours—neither was gorged. The first of these was a very powerfully built old beast, with a big domed head, a close dark coat and no white at all on the face or throat, even the chin and jaws and inside of the ears being yellow ochre. He crossed the road in the light of the setting sun right in front of two experienced shikaris, a few minutes



before he was shot, and both identified him as a tiger!

I should mention two remarkable animals from the Sandur hill jungles. Both were chance-met males, shot from the road very near human settlements. The first, shot about sunset on June 13, 1948, was 7 ft. 7 in. between pegs and was a low, longish panther, obviously old and with the right lower canine broken. It had the most remarkable coat I have ever seen on a panther, with the hair soft and somewhat fuzzy—the ground colour was no shade of yellow or brown, as in most panthers, but a light warm grey, and there was no line of solid spots down the spine, the markings consisting mainly of large rosettes, some of them double rosettes with an inner cluster of fine spots within the outer circle. The illustration is from a rough sketch of this beast.



After stressing the variations in size and coat that can obtain in panthers, Dunbar Brander says "Purely jungle leopards, those living entirely inside the forest and never resorting to open country and villages, are often of large size and adopt the habits and ways, and to some extent the colouration, of tigers. They have yellow tawny coats, relatively fewer spots and rosettes, and are distinguished by the jungle tribes as 'gol baghs' or 'spot-tigers.'" "A fair average specimen" of this type "measured 7 ft. 5 in. and weighed 152 lb."

This distinction between the larger and heavier forest-loving game killer and the panther haunting the purlieus of villages has been reiterated by most subsequent writers. A recent note in a scientific journal refers to this difference and mentions a panther "8ft. 5½ in. in length" (between pegs?). Rowland Ward, I think, records longer animals and one that weighed 160 lbs. I remember reading somewhere of a 9-foot panther—but probably this measurement was very much round the curves.

I have measured the length, between pegs, of certain large panthers shot in the Deccan during the past ten years, and where there were facilities for accurate weighment I have weighed them. Here are the details, from my notes.

Two males shot within 15 minutes of each other on the evening of September 14, 1947, from the main bus road near

The second panther is probably a record, for South India at any rate. It was shot on the night of July 25, 1951, by the Yuvaraja of Sandur, and had a tucked in, empty stomach. Length—7 ft 8 in. between pegs (lowest of three measurements); tail (root to tip) 35 in.; shoulder to toes of forelegs, 33 in.; girth behind forelegs, 36 in.; weight—158 lbs. The colouration was normal.



The interesting thing about these four panthers (and other large animals from the same areas) is that none of them was a pure game killer, a forest-loving "gol bagh." All four were shot very near villages, from the main road, and three were definitely known to prey, occasionally, on village cattle and dogs. In Karwar, where there is real forest (there is only bush jungle in Chilkanahatti) the few panthers I have seen were small and long-tailed—two males I measured were around 6½ feet, and very light, with beautiful, dark coats.

Whatever may be the general rule in the Central Provinces, the "gol bagh" distinction does not appear to hold in the Deccan, and it is unsafe to specify any colouring as being typical of the panthers of any region. Heredity seems to play a much larger part than environment in determining the size and colour of the panthers of any area. Sufficient food during the period of growth (and even afterwards) is a vital factor, of course.

THE GREEN BEE-EATER

AN oblong of lawn, some 30 yards across, lay between the barbed-wire on which the bee-eater sat and the foot of the parapet I sat on. Every blade of grass, each leaflet and blushing flower of the tiny wild indigo that grew amidst the grass, stood out in sharp relief viewed through my binoculars, for the sunlight was cloud-filtered and there were no highlights and shadows to confuse the eye.

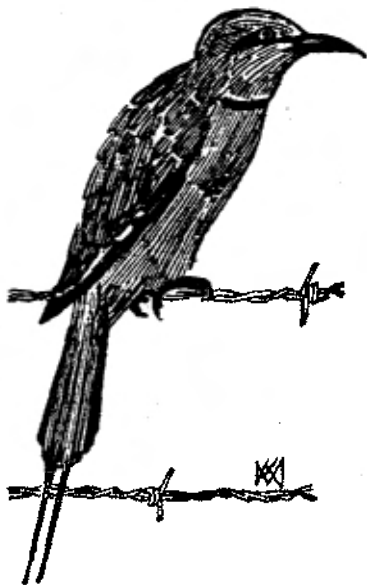
The bee-eater sat hump-shouldered on the wire, sideways to the lawn. A needless, secondary line of barbed-wire, two inches below its perch, lay across the pin feathers of its tail, further suggesting fixation of its inertia. The plumage of its back was slightly ruffled and it seemed lost in unseeing introspection, as if chasing far memories.

Suddenly it launched itself into the air and came sailing over the lawn on acutely triangular wings, chased an insect on quick-beating pinions, caught it and returned to the barbed-wire again, to resume its slumped vigil. In the half-hour I watched it through the glasses, it sallied out 21 times from its perch to catch prey, mostly over the lawn, right under my nose—and not once did I, with that hunting ground so clearly in magnified view, spot its prey before the bird.

★

It was only by following the bee-eater's line of flight that I could spot the insect each time, though I was watching the lawn from above all the time, rather than the bird. The prey consisted mainly of some minor sort of bee, but it took two small white butterflies (patently clear against the grass to me—after my attention had been drawn to them by the bird!) and once a dainty, green dragon-fly.

After each successful sally (there were a few misses) it returned to its perch to take up the same, contemplative, sideways attitude. No doubt it watched the roadway with the other eye, with the eye away from me, for sometimes it took its prey



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across the fence, over the road. What surprised me, even more than the quickness and certainty of its sight, was the fact that each eye covered territory so unerringly, independently of the other.

★

I have seen this bird take large, red dragon-flies, darting about at dizzy speed near electric supply wires. These were the fierce-looking, orange-vermillion dragon-flies, some 3½ inches long, clear against the sky in spite of their erratic speed—I have not seen any other bird hunt them, though I have seen them when rollers and king-crows were near. The bee-eater had no difficulty at all in catching its speeding quarry. It sailed out to meet the ill-fated dragon-fly at a particular point in its headlong flight, as if by punctilious appointment, plucked it casually from the air and returned to its perch.

The bird had some difficulty, though, in killing and devouring its considerable meal. It held the insect by the base of one pair of wings and dashed it against the wire with quick, lateral jerks of the head to kill it, swallowing it when quite still with obvious effort. I noticed that after it had eaten three dragon-flies in this manner, it showed no further interest in the circling insects.

★

During the cold weather (right now, in fact) bee-eaters roost in close company. I used to know such a roosting place on top of a hillock, where two large, spiky, much-branched bushes, with little leaf on them and sheltered from the wind by green cover beyond, provided all that the birds wanted. Each evening some hundred bee-eaters would assemble here, and roost thickly on the bushes, endowing them suddenly with lanceolate, living leaves.

It was pleasant to climb that little hill at sunset and to rest for a while in that sheltered clearing on top, listening to the trilling voices of the bee-eaters.

THE CART OF THE COUNTRY

PERHAPS, if I live on and on and on, the day will come when people will ask me (as a survivor from the "B. C. era") to tell them about that curious old contraption, the bullock cart. And how I shall treat them to stories of perilous long rides and benighted jungle roads, of blooded bullocks with sabre horns that could hold the tiger at bay, and swift-striding teams conveying smuggled cargoes through the dark—for with age the mind develops an aesthetic fullness and vigour and is delivered from cramped, immature limitation to actual experience.

But thinking it over I am glad the day will never come, not if I live to be a hundred. The bullock cart will still be there.

I cannot imagine an India without bullocks and carts. Our ancient culture and history are sustained by them, for through centuries of conquest, opulence, famine and strife it was the unobtrusive bullock that made agriculture, transport and life possible. Even today no countryside landscape would be complete without the bullock cart, and it is still what moves our rural economy.

★

Few people know how many thousand miles of cartway are listed in official statistics, but it is safe to double this mileage without exaggeration, for like the jeep the bullock cart is independent of roads. Many of the paths it takes are just a pair of parallel, hardly visible wheel tracks in the scrub, and often it leaves the earth-blazed trail altogether and goes cross-country, especially in sandy places.

When I was a boy I travelled distances in a bullock cart across sandy country. The rides of later days were somehow much less comfortable, and I put this down to an unmanly habituation to luxury in travel and, possibly, the fact that the carts of my boyhood were specially made and sprung to carry people, unlike the rough, timber-laden ones of later occasions. It was only recently, while traversing a few furlongs of hard-metalled highway in a bullock cart after many miles along a river-bed, that I discovered the true cause.

The bullock cart works on the principle that instead of pneumatic tyres and springs on the cart taking the jolt out of a hard road surface, loose earth can cushion bumps when iron-bound wheels are used. On unyielding, metalled roads the cart is rattled continuously and bone-shakingly, but when going cross-country over pathless fields or along what Kai Lung would term "the long earth-road" the bumping is quite bearable. Most country roads nowadays are metalled, and the wise cartman leaves the road whenever he can.

★

Even I will not say that travel by the country cart is a soft experience, but one gets used to it, as one gets used to strap-hanging in buses and trams and the discomforts of air travel. Nobody accustomed to the bullock cart complains about jolts; occasionally, of course, one swears at the road or whatever surface supports the wheels—that is good for one's diction and keeps one's language in practice, and the jolting is good for the liver.

The chief charm of bullock

cart travel is the leisurely comprehension of the countryside that it permits. You have the right stance, bodily and in mind, to notice many things about the slow-moving landscape that you will miss otherwise.

Even from an utilitarian point of view it is important to have cart bullocks evenly matched and of mettlesome temperament. Otherwise the larger beast of the pair is apt to get the skin of its hind quarters rubbed off by friction against the cart, and nothing can move a philosophic bullock once it gets into a reflective mood.

But quite apart from their utility, there are few possessions in which the rustic takes greater pride than his bullocks, for they are his constant companions. The savings of years, often supplemented by hard-borrowed money, go to the purchase of a pair of

(Continued on Page III.)

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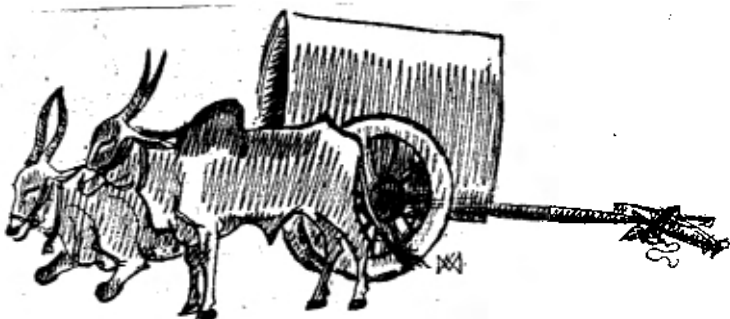
(Continued from Page I.)

cart bullocks, but he will pay an extra fifty rupees for the sake of a flecking of iron-grey on the sides that he fancies, or symmetry of horn. You should hear him talking to his beasts on a long and lonely road. All his cares in life are discussed in detail with them, and who can say that he is not the better for this circumstantial clearing of the heart?

People may think me antediluvian or biased in my claims for the homely bullock cart—city-bred people afflicted with physical and mental dyspepsia, given to periods of insufferable ennui between bouts of frantic work and pleasures and rushing about. I have been told, with a sarcastic intonation, that we are now in the age of air travel. Strangely enough, my first taste of air travel compelled me to think of the lowly country cart, by contrast.

I had promised apprehensive relatives immediate news of safe passage, and since an educated man need not rely overmuch on his memory I carried a tersely worded telegram in my pocket, announcing arrival at the destination. But I had not yet learned the wisdom of equipping myself with a half-read detective novel on a long air trip. We experienced bumps and dips in plenty, but it was not my stomach that felt uneasy—it was my mind that felt low, for all the way from Bangalore to Delhi I looked out of the window at the remote, dreary, meaningless map of the earth below, and was depressed. When I reached Delhi I tore up the ready-drafted wire and wrote out a more expensive one to relieve my feelings, somewhat to the embarrassment of the courteous airport official who undertook its despatch: REACHED HERE AT LAST SOUND IN EVERY LIMB GIVE ME THE COLOURFUL BULLOCK CART.

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Fond Recollections

BLACK birds, as a rule, are glossy. Look at the king-crow, the Racket-tailed Drongo, the cock koel and robin—even the homely crows have a shine to their darkness, like a glace-kid shoe. Some black birds are even more fancy, the sheen on their plumage having an iridescence the hill-mynah's black is shot with flashes of purple and green, the little sunbirds have a gem-like purple glow, and many other birds have a watch-spring-blue gloss to their blackness.

But the cock Pied Bush-Chat is not like that. Its black is shineless and gentlemanly, and sets off the patch of white in each wing and above the tail so neatly, brings out its stubby little figure so trimly. Its mate is even more sober in attire, the colour of sun-baked, brown clay.

It is scrubby country, given to spiky, stony vistas framed by thorn-bush, that the bush-chat likes best; and here it will often take up residence, with its mate, around one's home. So will many other birds, but I think that none of them can impart to a modest cottage set in a plot of waste land the same sense of cheer. I should know, having lived for years in just such a dwelling.

For seven years a pair of Pied Bush-Chats lived close beside me, till I left. Each year they built their nest in the vicinity, in a cleft in the kitchen wall, in the roof of my goat-shed, and once in the axle-hole of an enormous, handleless, stone road-roller that lay permanently unrolling on my wily "lawn"—that brood, I remember, came to grief soon.

Robins, many wagtails, sparrows, bulbuls, sunbirds—all sorts of birds would come to the curious, low, circular wall that enclosed my house or to the aloes and the few hardy bushes that I succeeded in cultivating.

But it was the bush-chats that were the permanent residents and I was glad this was so; they were such quiet, self-assured and confiding tenants, unlike the giddy, fidgety visitors.

During summer and even during the cold weather (especially in December) the cock bush-chat would take his stance atop the terrace, or on a mast-like strip of plank from a packing case that somehow came to adorn the roof of the goat-shed, and sing his glad, brief song—a loud, clear rising whistle ending on a note of untamed sweetness.

Listening to it on a sultry afternoon, I have often felt convinced that there is more to bird-song than scientists know yet, and that there are times when a bird sings merely because it can and feels like it.

I know that scientifically-minded people will shake their heads sadly over this little tribute to a lost friend; they will tell me that it is a projection of my own emotions, a sickly and unworthy sentimentality, that is responsible for this note.

No matter. I knew these chats for years and they did not—and if science is the elimination of all feeling and perception and an unwillingness to believe what is not printed in a book, then I have no use for it.



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IN a world where life depends so frequently on lesser life, the killers usually know their job. Their methods are swift and efficient, not out of self-conscious mercy but because by quick killing they avoid many risks to themselves. Sometimes there is hardly any killing—with a lizard or bird feeding on small insects it is just stalking, seizing and swallowing. And even where a killer takes on sizable prey, too large and strong for instant despatch, there is no intentional cruelty, and possibly, in the excitement of the fight for dear life, less pain than we imagine.

Many cynical naturalists have pointed out that it is only man that inflicts pain with the will

to hurt. I will not repeat that; we are also sensitive to the suffering of others in a way that few animals are, often with a superimposition of sentimentality over deeply-felt sympathy. I only wish to say that there is not much scope for sentiment in any study of the murder technique of animals.

Most killers are efficient but a few are not; these latter are usually creatures that have taken to a predatory life for which they are not fully equipped by nature. Among these is the Jungle Crow, which was named long ago when it was less common in urban areas than it is now.

It is a bird equipped for a life of scavenging, plunder, theft and insect hunting; intelligent, long-lived and capable of much individuality. It is not such a dexterous flier at low elevations as its grey-necked cousin, though Whistler comments on its aerobatic skill. It is big and black and has a wicked bill, but lacks the talons of the true killer; in fact, it never uses its feet for seizing anything in the air.

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It is given to carrion feeding in the countryside, and is an inveterate egg thief everywhere. It has long been known to attack maimed birds and fledglings, but I do not know whether it has always been an amateur assassin as well, a rôle in which I have known it many times.

When I was a boy I was a tumbler fancier. I learned, then, that it was necessary not only to protect eggs and unfledged squabs from these crows, but also to shut in young and inexperienced birds before dusk. Such youngsters were chased by the crows into the gathering darkness and as night approached the pigeons could no longer see their way about, while the crows could; they were apt to panic and get lost. I do not know whether the crows actually got them in the end, but they never came back.

Jungle Crows kill bloodsuckers in a particularly revolting manner, by slow torture and paralysis of the hind quarters. The bird looks sufficiently big and powerful for a forthright attack, but always uses the utmost circumspection. It comes in from behind and tugs at the lizard's tail, avoids the open-mouthed rushes of its victim by hopping aside, and tugs and pecks at the base of the tail repeatedly—unfortunately for itself the bloodsucker has not the fragile tail of the geckoes. Slowly the lizard loses the ability to pivot around on its hind legs, and is then pecked from nearer till it sinks, then carried away.

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Sometimes two crows take part in the killing, so that when the lizard turns on one adversary, it exposes its hindquarters and tail to the other—it is the grey-necked House Crow, rather than the Jungle Crow, that hunts in pairs like this.

People do not realize, quite often, what is taking place when they see crows hopping around a bloodsucker and tugging playfully at its tail. Such a close observer as "Eha" was misled into thinking the birds were having a game with the lizard—it is no game, but cold-blooded murder. When cover is handy the bloodsucker may escape, but usually the birds wait till it is well in the open before attacking.

A pair of Jungle Crows that live near me are much given to baby-snatching. I have seen them hunting baby squirrels among the tiles and eaves of roofs, and recently I saw one of them abduct and devour a fully-fledged White-headed Babbler. This was at sunset, as the light was just about to fade. It held the youngster by the nape in its beak and flew off to a parapet, its victim squeaking loudly all the while. There was a full contingent of grown White-headed Babbler close by but none of them went to the rescue of their abducted child—an amazing reversal of their normal behaviour. The crow sat on the parapet, right in the open, and killed its prey by repeated blows of its heavy beak. When I went near it carried the little corpse away, plucked almost clean of feathers.

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Recently our National Committee for Bird Preservation appealed to bird lovers to help the avian population of their locality by thinning out House Crows. Commenting on this I pointed out (in the issue for June 7, 1953) that the Jungle Crow, more at home in tree covered areas, was the more potent inhibitor of bird life. There is, of course, no question of sentiment involved, but if we want the bird life of any place to flourish, I think this clumsy, amateur assassin should be sternly discouraged.

Country Notebook

by M. Krishnan

GOGGLE-EYES

THROUGHOUT India and even far beyond, where the country is sufficiently dry, stony and scrub-jungly, you will find a brownish, much-streaked bird with enormous eyes, trotting over pebbly riverbeds on long yellow legs, scuttling through the scrub, crouching low and merging instantly with the earth. It is a bird of many aliases, all of them descriptive and none flattering.

It is the Stone-Curlew, the Thick-knee or the Goggle-eyed Plover, it is the "bustard-florican" of Anglo-Indian sportsmen—I have even heard it called the "bastard-florican." However, it is ornithologists that have been least kind to it. Formerly it was termed *Oedinenus scolopax*, but apparently it was felt that the second, specific part of the name was too easy; so, now they call it *Burhinus oedinenus*!

Thick-kneed-goggle-eye d-bustard-plover-stone-curlew would be completely descriptive. The bird has the three-toed, yellow running legs of the bustards, and carries its body horizontally; when it runs, with quick, mincing steps, it holds its head low, in a line with its body. By day it is inactive, especially when the sun is bright and cover scanty, but as the light fails it emerges singly and in pairs, moving on quick, silent feet through the scrub looking for insects.

Its obliterative plumage is almost invisible in the dusk, but you may hear it for with nightfall it grows vocal and often keeps calling till quite late, especially when the moon is bright. And listening to its wild, high, repeated "curlew . . . curlew," a call suggestive of desolate, wide wasteland, you know at once why it is called the Stone-Curlew.

In places it is only less common on the night road than the nightjar. When caught in the beams of the oncoming car, it scuttles to the shelter of the nearest bush and stays

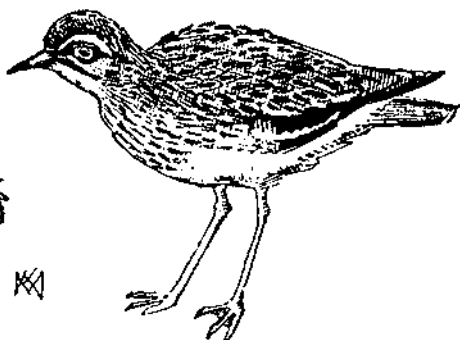
put beneath it, only its big, black-and-yellow eyes betraying it—or else it flies swift and low for a short distance, the white bar in each wing clearly displayed, before touching ground again and scuttling away. It never flies high or far when disturbed, for it is a ground bird that trusts its thick-kneed legs, but I have heard a pair flying fairly high and calling to each other in the cold, clear moonlight.

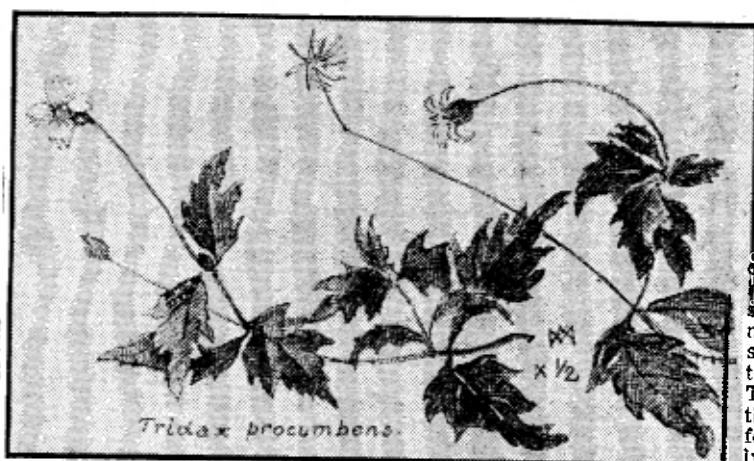
Often a bird disturbed at night on the road will fly alongside the car or right over it, before turning away, somewhat in the manner of nightjars. Once I caught one from an open lorry, putting up my hand as it came skimming over, and what impressed me was the way it went limp and yielding in the hand, and its surprising lightness. Most birds lack weight remarkably in the hand, but I think the Stone-Curlew (it is definitely larger than a partridge) is exceptionally light even for a bird.

I would like to know more about the courtship of this earth-loving bird, whether that too is terrestrial. Does love inspire its wings at any time or was it just the moonlight that exhilarated the birds I heard, more than once, flying high?

Growing curious on this point I questioned a number of people who lived where these birds were common. They could tell me nothing, but directed me to a gang-foreman whose knowledge of the fowl was said to be considerable. After missing a few opportunities, I met this expert at last, and this was what he told me:

"Yes, they can fly, but that's not the point. Sometimes they fly a little and sometimes a little further, but mostly they like to run. The point, however, is this: Try them cold, in a sandwich." Unfortunately, I am a vegetarian and can add no personal recommendation, but that was the expert advice.





LAZY DAISY

M. Krishnan's Country Notebook

EVERYONE knows *Tridax procumbens*, a lazy daisy, though its name may be unfamiliar, a low herb stretched at ease on the ground (as its name suggests), common in wasteland in the plains, especially common in open, grassy places and at roadsides. The dark green, beautifully unsymmetrical leaves have a fine, stiff down softening their contours, and the flower-heads, yellow-centred and with a few white petal-like outer florets, are borne on long, up-curving, down-covered stalks—an obvious “daisy”, though larger and ranker than the true daisy, less gregarious and far more tolerant of the heat and dust. I will not describe the plant further, for I have drawn it from life for you, but I should make it clear my sketch is a half-sized one.

Tridax procumbens is one of the most familiar plants of our plains today, but it was unknown to our old-time herbalists; its original home was in tropical South America and it came here only some 120 years ago. Like many exotic plants (many of which also come from tropical South America) it soon became quite a feature of our hospitable scrub, and no longer exotic. However, there is evidence to show that till late in the 19th century its conquest of our countryside was unnoticed.

EARLY LITERATURE

Roxburgh's “*Flora Indica*” of 1832 does not mention the plant, not even in the “Reprint” issued by C. B. Clarke in 1874. Nor can I find it in Indian floras belonging to the evening of the last century, including Hooker's “*Flora of British India*” of 1875 and Heber Drury's voluminous “*Handbook*” of 1866. Theodore Cooke says, in his monograph on the flora of the Bombay Presidency published in 1908, that “it has long been completely naturalized in the Bombay Presidency, especially in the Deccan, where it is very abundant.” It is mentioned in all subsequent accounts of the plants of the plains, and by about 1920 it was so common that Indian botanical textbooks began to use it as the type specimen for Compositae of the daisy type.

However, it is hardly fair to this adventurous cosmopolitan to look

in Indian books for an account of its early history and achievements. Ridley in “*The Dispersal of Plants Throughout the World*,” gives a brief but adequate recital of its conquests till 1930 (no doubt it has spread farther afield since), which I quote below.

“It was introduced into India before 1830, and spread to the Malay Peninsula, Java, Papua, Queensland, Fiji, Nigeria, South Africa, Mauritius (where a note in *Herb. Kew*, dated 1864, states that it escaped from gardens 20 to 25 years before), Bourbon, Rodriguez, and other islands. It is abundant in America, from Florida to the West Indies, Mexico and Colombia, where it is said to be wild in the woods. Since its introduction, probably (though not showy) as an ornamental plant, it has spread by its plumed achenes.” Earlier he says: “It has established itself, not only in waste ground, but on sandy seashore, so that it often looks as if it was a native.”

“COLONIZATION”

All the books I have consulted for this note (over a dozen!) pay tribute to its powers of colonization by means of what Ridley terms “its plumed achenes”. This technical description need not alarm non-botanical readers, it only denotes the numerous, dry, light, one-seeded fruits with a parachute arrangement of radiating white hairs on top that each head of the plant produces. Because of the parachute each fruit can float far on the breeze, seeking “fresh fields and pastures new”. One authority estimates that each plant produces 500–1,500 such fruits yearly—the potentialities of this weed to acquire fresh territory are obvious.

But it is not only the airborne seed of the *Tridax* that gives it such wide lebensraum; the seedling is extremely hardy and thrives in most soils, particularly in fresh dug soils. I understand that in South Africa this plant is known as the “P.W.D. weed”, because of its “frequent appearance on building sites after building work has been completed.” Every book on gardening that mentions this plant (as a wily weed) suggests strong and persistent measures for its eradication.

None of these books mentions a characteristic of the plant that I have noticed, that cattle do not seem to relish it though it is common on pasture land. I will not say cattle never graze it—perhaps they do, occasionally—but in a *Tridax* studded grazing ground that I passed almost every day for years I found the plants slowly gaining strength. My goats would not touch it when I offered it to them but knowing goats I draw no certain conclusion from this; it could be that the proud creatures did not care for the manner of offer.

GOOD FOR WOUNDS

The leaves have no bitter or acrid taste to the human tongue, but are unpalatable because of their stiff down. What is remarkable about them is not their taste but their therapeutic virtue. The leaves are thick, succulent and crisp. Their greenish juice is easily expressed between the fingers, and is excellent for flesh wounds.

Some thick leaves, when crushed in the fingers, yield little juice, some exude a slimy sap, some others a sticky milky latex, but the greenish juice of *Tridax procumbens* leaves runs freely out of them, in large drops, under manual pressure. In places far from medical aid and standard antiseptics, it is easy to treat flesh wounds with this quickly-got juice. Of course I have tried it personally, though I did not have to, and have found it effective, very effective, for flesh wounds. But what impressed me, more deeply than personal experience, was the number of clean, quick healings obtained in a rustic school in 1945, when almost everyday some rough countryside lad would get himself cut or badly scratched by a hedge. Incidentally, when the juice is squeezed into a cut, it smarts every bit as pungently as iodine.

In Jim Corbett's “*Jungle Lore*” (published last year) he mentions a plant locally named “*Brahm Buti*” (he does not provide the botanical identity) the leaves of which, crushed in the hand, yield a juice that he recommends for flesh wounds. His description of the plant tallies with *Tridax procumbens*.

Perhaps some biochemist who reads this note will investigate and discover just what it is that gives the juice of *Tridax* leaves its healing virtue. To anyone who might take up this investigation, I have a suggestion to offer. No doubt it is some other substance in the juice that gives it antiseptic power, but clearly the juice contains plenty of chlorophyll, as its yellowish green colour shows. Western science now recognizes the value of chlorophyll in the treatment of wounds and sores, but I believe there is still much scope for experimenting with the manner of its use, and the direct use of a leaf-juice, easily obtained, might not have been widely tried.



THE SUNDAY STATESMAN FEBRUARY 28 1934

M. KRISHNAN'S "COUNTRY NOTEBOOK"

The Nest In The Bougainvillea

THE bird, I was told, was tiny, dark above and yellowish beneath, and the nest it was building hung close to the dining-room window from a bougainvillea trained against the outer wall. I said it was a sunbird; probably a Purple-rumped Sunbird, for it frequently nests early in February.

My informant was sure it was not. She knew sunbirds and this bird did not have the thin curved beak of sunbirds; its beak was shorter and straighter. I asked if it was accompanied by its mate, in dark metallic purple and green all over, or that colour above and lemon yellow below. Yes, once its mate had come with it, but it was no sunbird either; it was bigger and brighter but otherwise like the hen, I decided to investigate.

One look at the nest, in an advanced stage of construction, showed that it was a sunbird after all—the typical pendant purse of floss, fibre, dried leaves and flowers, bits of string and jute, all deftly held together with cobweb and with a round opening on one side with a little porch on top. However, I adjusted the window-curtains and made myself comfortable so that I could watch the nest from close quarters.

The specific identity of the nest-builder had to be established. The cock bird would provide it, I explained in patient tones, for it was difficult even for an ah, expert to tell the hens of sunbirds apart at a glance.

The little hen came to the nest, perched momentarily on the threshold, pecked at the inside wall and flew away. It reappeared at frequently intervals, dipping under the creeper and shooting up to the nest with a thin "tsee-tseep" to add a bit of building material and peck it in place, before flying away. Its beak was rather short and straight, and moreover it was pale in colour, but clearly it was a sunbird.

Then another bird came up to the nest with it, larger plumper, more greenish above and a much brighter yellow below, but otherwise like the hen. It

perched on a twig close to the nest, then flew away. I felt puzzled, and foolish. I did not know this newcomer—and I do not still, after searching through books.

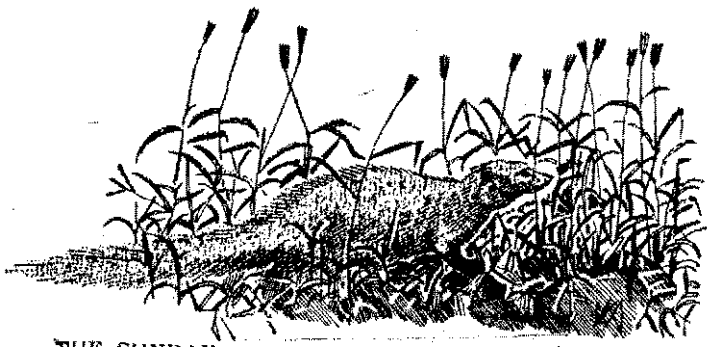
I explained, with a stubborn faith in my recollection of nesting sunbirds, that one should not be hasty in coming to conclusions in one's bird watching. Yes, it did look as if my original identification was, ah, somewhat inexact (how pompous we are in our less secure moments!) but it was better to wait and make sure that this was, in fact, the mate. It was just possible, I added, that a dark purple and yellow cock might still show up. No one believed me.

And then the cock returned with the hen, not once but half-a-dozen times, unmistakably a Purple-rumped Sunbird in its trim yellow waistcoat and glistening dark coat, and my reputation was saved. But it was a near go!

The other bird did not return, though I waited patiently. It could have been the hen of some other sort of sunbird, perhaps a Loten's Sunbird (though its beak was not long) but I am not sure. Watching the nesting hen from a yard's distance the straight, short beak was noticeable—the cock had the typical, dark, curved beak.

Twice, while I watched, the cock came straight to the entrance hole, perched on the rim, and pecked at the inner walls before flying away. Even though I was so near, and watching so closely, I cannot say if it had anything in its beak on these occasions. According to the books the cock sunbird never helps in nest building.

As I write, the hen is in the nest, sitting on the eggs. Someone told me once that he knew of a pair of sunbirds that had rigged up their nest in one day—I have never known such quick work. This nest (which I have sketched with great attention to details that are unimportant) seems to have taken all of five days to complete, from the start to the first egg, and that seems to be a fair average period for the construction.



THE SUNDAY STATESMAN MARCH 7 1954

M. Krishnan's Country Notebook

NON-RECLAMATION

IF I had a five acre plot of out-lying cultivation as so many ryots have, a stony field at the foot of a hill or the edge of the scrub that would gradually repay the effort of reclamation, I would not make the effort. I would abandon my field to weeds and shrubs, even help it actively to run wild, and count myself as much a patriot as the man who, by sustained toil, adds it on to the struggling agriculture of our grain-hungry country.

And if I lived in a mansion set in an immaculate garden, with lawns and smooth paths and every little annual in place, or if I were in charge of a spotless city park, laid out in a geometrical pattern and with ornamental trees in rows—why, then too I would let my garden or park run wild, in part at least, and encourage thick bushes festooned with greedy creepers and the rank under-shrub.

I would do these things from no sense of cussedness or ennui, but because in a small way I would be contributing towards a less sterile life. We can grow more food by less wastefully extensive agriculture—an incredible extent of countryside is cut up and wasted by our loose agriculture and communications. And in towns and cities one can no longer find a bit of wasteland, leave alone woodland. Even the bird life of these places has been banished by an ugly craze for ferro-concrete architecture and tidy, well-tamed gardens.



In the old days urban gentlemen lived in bungalows with large, tree-filled compounds, and it was part of their gentlemanliness not to bother overmuch about the further reaches of their domain. Today the urban rich, when they do have a bit of garden space, have flowering trees near the road and rectangular lawns in front of the house in herbaceous borders; cannas flank the drive and crotons in pots decorate the portico, and if there is a plot in the back yard they grow anæmic tomatoes in it.

Our public parks display a hideous and patent symmetry; wide, hard paths intersect one another at right angles, rows of flaming Cassias and Poincianas stand stiffly at attention, there are sandpits and short-mown lawns for the children and concrete benches for older visitors. There is not enough undershrub and

bushes anywhere to tempt a mongoose to stay or a warbler to nest. There is no lebensraum for the lesser fauna even.

Off and on, during the past thirty years, I have watched the bird life and lesser beasts of a city area dwindle and vanish, and I know at first hand how our extensive agriculture can drive out wild life in rural areas.



Even now it is not too late, if we follow a sensible plan of non-reclamation in the countryside and encourage gentlemanly neglect in city gardens and parks, to bring back the charm of wild life to these places. What many people (including enthusiasts for our fauna) do not realize is the power of nature to recoup, left to itself. The following extract from an editorial in *The Times* (London) of Dec 18, 1953, is significant:—

"Many cities in Britain have their acres of bomb-devastated land, once covered with houses but now overgrown with vegetation. These are places of great interest to naturalists; they can see what plants most readily and most permanently colonize ground on which no plants have grown, perhaps, for centuries past. Not only plants but also insects and birds and even mammals have been demonstrating how nature pours into any vacuum that is offered, and then stages a battle there for survival. . . In all, 269 kinds of wild flowers have now been recorded in the City of London, their seeds brought there within these last few years by air, in the fodder of horses, and by other agencies including birds. For birds, too, have been quick to colonize the ruined cities."

No need, of course, for our cities to face a blitz for the welcome return of nature—though it is true that ruined buildings offer splendid scope for wild things. Plant a section of every park and garden with native jungle trees (not forgetting a few fig trees) and thick bushes, allow creepers and the undershrub to grow, and the birds and smaller beasts will come back.



In the countryside all that is needed is to tighten up agriculture so that intervening wasteland can run wild, and be available to wild life in sufficiently large blocks. Unfortunately our wild life preservation effort is directed mainly towards the denizens of forests; the fauna of the open scrub receives little attention from anyone—excepting professional trappers.

When I was a boy I had ample opportunities for watching minor wild life in a city and in the countryside. Those opportunities are now gone, or are going. It is such a pity, and so wrong, that urban children today should grow up in ignorance of the common wild life of the soil.

The idea that our fauna should be penned up in national parks and preserves, and that our children should visit these pens or some remote countryside for a glimpse of the great heritage of nature that is theirs, revolts me. There is room enough for man and birds and beast in this hospitable land, if only men would be less covetous of space and curb their urge to claim and tame every plot of land in the neighbourhood for the sake of grain too hard won, or may be the sight of a row of Poincianas.



M. KRISHNAN'S COUNTRY NOTEBOOK

WOLF BOY

PERIODICALLY a Wolf Boy appears in the news, there is much excitement and a spate of speculative medical opinion that is inconclusive and generally uninformed by any knowledge of lupine life, then the case is relegated to the archives of things "not proven" and forgotten—till the next Wolf Boy comes along. The only person who has benefited by it all is Rudyard Kipling. The Mowgli story is revived and people read "The Jungle Book" again—a splendidly written story, always worth rereading.

I will not go into the cases of past "wolf-children." There is an admirable summing-up of cases up to 1928 in Brig.-Gen. R. G. Burton's "Sport and Wild Life in the Deccan", an entire chapter devoted to them which readers may look up, if they are interested. But I may say that in this book the fact that most "wolf-children" come from the province of Oudh and its neighbourhood is mentioned, and it is said that "an eminent and well-known surgeon, who formerly resided in Oudh" said, when asked what he thought of these stories, "I do not believe one of them."

What interests me about the latest Wolf Boy, in the Balrampur Hospital, is the amazing circumstance that eminent medical men, like Sir Philip Manson-Bahr, should have observed the boy and given opinion without bothering to consider the probabilities of the case. But perhaps this is not so amazing, after all.

A medical expert, presented with an alleged Wolf Boy, is apt to confine his observation to the accord of the physical and physiological condition of the child to the circumstances which he thinks must have conditioned life, had the child been really brought up by wolves. I don't suppose that vexatious but reliable document, the Indian Evidence Act, is ever part of the course of studies of specialists in tropical medicine, but they could certainly have consulted it before presuming that the Lucknow boy came from a wolf's den.

There is not a scrap of evidence to show that this boy was really recovered from the custody of wolves. Naturally not. The very idea of wolf-children is biologically unlikely. I say this not triumphantly, but sadly, for I have always felt moved by the wonderful, spontaneous sympathy of animals for helpless and helpless humanity.

I know from observation and experience that it is a fact, not yet "explained" by cold science, that dogs and even cattle are sometimes capable of a deep commiseration towards humanity—they nuzzle up to the man that is wretchedly sick

or sorry, offering him their tacit, patient, unquestioning sympathy.

Watch-dogs, given to biting first and then considering the bonafides of intruders, have been known to escort trespassing children through their domain with fond care; it is well known that the most savage carnivores are often gentle in the extreme with infant life, and that the maternal instinct is strong in them.

Cats have suckled plump little bunnies, bitches have reared leopard cubs; though these things have not happened in natural circumstances, there is nothing *prima facie* impossible in a she-wolf trying to rear a human infant, that has miraculously survived the incidental transport to the den.

The survival of the transport would be a major miracle, though, for all canines depend on the loose, tough skins of their progeny for lack of injury in transport over any distance, and human infants have tight and tender skins; moreover, in snatching a baby and running away with it, urged by the frantic shouts of the legitimate parent, no wolf can exercise the full gentleness of jaw that it is capable of. But granted that somehow a she-wolf has arrived at the den with an uninjured human infant, which it is prepared to suckle and rear, how will the child survive lupine upbringing?

Here are some facts that will bear thinking over. The wolf suckles its young for about six weeks, then feeds the husky, thriving youngsters, equipped already with stomachs and intestines for the digestion of raw meat, on regurgitated and torn up meat.

We need not at once consider how the human child will react to this sudden change of fare, for it seems unlikely in the highest degree that the infant will survive several weeks of wolf milk, in the first place.

Wolf milk is much thicker and richer than human milk (dog's milk is three times as rich in proteins and fats as cow's milk and less watery, and there are good grounds for assuming that Wolf's milk is similarly rich); incidentally, it is unflattering but true that of all animals it is the ass that yields milk nearest to the natural food of infant humanity.

If you take a week-old puppy or wolf cub and feed it human milk, diligently, it will die of starvation, because its intestines are too short for it to ingest a sufficient quantity of the weaker fluid—what is lost in concentration cannot be made up in bulk. Considering the

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WOLF BOY

(Continued from Page I.)

relative length of human and canine lactation, that is a very fair comparison. Things are not true by *contra*, but it seems just as unlikely that an infant will survive several weeks of wolf milk.

Consider the probabilities, for it is scientifically sound to do so. During the period of lactation and even after the stage of solid food is reached, the intervals between feeds are longer, sometimes much longer, with wolves than with humans—this will surely tell on the wolf-child. Again, after the stage of solid food is quickly reached, is the human infant likely to survive several weeks of sustenance that consists of lumps of meat and hide, not finely chewed meat but solid lumps? Again, a she-wolf does not go on caring for the cubs of an earlier litter when the next litter arrives. Even assuming, hypothetically, that the wolf-child has survived till then, how will a two-year-old human find his own food in the jungles? For about six weeks the she-wolf will not be bringing back anything solid to the den, and even afterwards will actively resent the human trying to get a share of the regurgitated food of the next generation. The fact is the Wolf Boy just does not seem possible, biologically, even considering only dietetic hazards. That does not, of course, bar superstitious beliefs and tales. The Wolf Boy is as old as Romulus and Remus, probably the story is older in India. There are similar stories about other animals caring for human company—in places there is the story of Sloth Bears carrying off the village belle, a story with far greater literary possibilities. The only thing we can now say about the Wolf Boy story is that in another fifty years or so it is liable to lose currency, for it seems likely that by then wolves will have become extinct in peninsular India. But perhaps that will be no real bar to the story.

Acts Of God

I was far from the recent earthquake that rocked Eastern India, but a correspondent has asked me for opinion on a point. "Several people to whom I have spoken mentioned that just before the earthquake the other day birds in their respective localities were unusually active and restless," he says, and asks if there is anything in this or if I think the observation of his informants is suspect. He adds, "After all, birds are usually active here by 5 o'clock at this time of the year. Dawn is about to break. The earthquake took place at 5.13."



A truly interesting point, but I must confess that I have no experience of earthquakes. However, I think I know the answer to this query. No, I do not think there is any point in suspecting the observation of a number of independent witnesses. And why should these people ascribe the excitement of the birds that they noticed to an apprehension of the oncoming shock rather than to the everyday dawn? That is the question, really, and it provides its own answer.

I have no data on the personal habits of these witnesses, but it would certainly take a major earthquake to get me out of bed at a quarter past five in the morning, when sleep is sweetest. On the inconvenient occasions when I have to be up before the lark, a large round-faced clock of antique make works the miracle. The reverberations of its three-legged dance on the teapoy near my pillow, and the eruptive preliminary rumble and confused clamour of its alarm are not, I fancy, wholly unlike an earthquake in the distance.

Tumbled out of bed at a too early hour, a number of people

noticed an avian activity that they usually miss, or else half hear without seeing, through drowsy curtains—naturally, in the confusion of their rude awakening and the shock following it, they subconsciously exchanged the priority of the avian excitement and the earthquake which they presumed was its cause. This seems a reasonable explanation to me, because my faith in humanity does not permit me to believe that a number of people in different localities (unrelated even by membership of some faddist cult) were all up and about at 5 a.m. on March 22, solely out of deplorable habit.

However, it could be that the birds really did apprehend the earthquake. In spite of the vast experimental work and the voluminous theories on the instinctive behaviour of animals (especially birds) that feature recent science, we are not very sure of the scope and directions of their perceptions.

In his detailed and authoritative note (in the Journal of the Bombay Natural History Society, Vol. 50, No. 3) on the Great Assam Earthquake of 1950, E. P. Gee has only this brief observation to make on bird life: "It is difficult to estimate the destruction caused among birds. Occurring as it did after nightfall, when birds would be roosting, the earthquake must have paralysed some of them with fear and swept them with the forest to their doom." The possibility of birds having advance intimation of seismic disturbances does not arise in this case. Mr. Gee estimates the loss of terrestrial wild life must have been staggeringly heavy.



We know that birds are sensitive to atmospheric conditions like heat and humidity, and to light. They are usually reliable harbingers of seasonal changes. In many parts of India the arrival of the Pied Crested Cuckoo foretells rainy weather, and each year I date the official commencement of summer by the stern ring of purpose in the noontide voice of the coppersmith. Cannot birds also foretell, by a few minutes at least, a heavily brooding earthquake?

That brings us back to the starting point, and I am again acutely conscious of my ignorance. It seems to me that here there is an unforced occasion for the technique that was my standby through

(Continued on Page II).



M. KRISHNAN'S COUNTRY NOTEBOOK

(Continued from Page 1)

so many university examinations, when no inkling of the answer to the question inspired me. I know nothing about earthquakes, but so what? I know about forest fires. Let me tell you about forest fires.

Many of the forest fires I studied were major conflagrations, that swept across entire hillsides devastating thousands of tons of desiccated fodder grass and even valuable timber. There were no firelines in those hill-jungles.

Following painfully in the wake of some of these fires, looking for animal victims, I found only one dead snake. It was very dead and it seemed likely that it had died of burns and nothing else, for it was in a patch of scorched grass. Heat is one of the few things that can kill a snake at once and all along its length.

★

The other animals seemed to have escaped, in spite of the pace of the wind-spiced fires. The literature I have read on forest fires (largely fictional) suggests that in the face of the blazing common danger mutual animosities are forgotten (a thing that is not at all unlikely, for in the confusion of a large beat predator and prey sometimes emerge side by side) and that if there is water nearby, the animals make for it. It was during a comparatively minor scrub fire, far from water, that I had the good fortune to witness the way animals reacted to the sudden and swift danger.

I was with a party of guns having the bush-dotted cover beaten for pig. The scrub was level and clad only in ankle-high grass in the more open places, but clumps of bushes and rock dotted the flatness, and along the dry, sandy stream beds there was heavy cover (mostly belts of wild date palm). There were pig in the beats, but somehow they sensed where the guns lay in wait and avoided them, a few affording shots that were ingloriously missed. As we drove to the scene of the last beat it was long past lunchtime, everyone was tired and hungry, and tempers were frayed.

One of the beaters noticed the fire first. It was advancing towards us on a wide front, coming very fast and low. There was a patch of fairly open cover between us and the fire, and this ran past the road on which our cars were halted, some half-a-mile downwards—by retreating rapidly the guns could get to the end of the patch and be ready for the fire-beaten animals.

To me (who do not shoot) that seemed a mean thing to do, and

I told my companions so. I also referred to the truce between wild beasts that is said to prevail during fires and floods, and drew obvious inferences. They left me behind in a lorry, with only its massive driver for company (a man whose rugged bulk lent the 3-ton chassis a certain slimness), and departed in haste to their evil assignment.

Our lorry was safe, in an open plot of sand, but I have an old-fashioned dislike of being blown to pieces, and so laboriously climbed a tree some 30 yards away. The driver, whose mass and philosophy discouraged simulation, sat on in his seat, with stoic resignation.

★

The fire was approaching at a great pace and was now quite near. It was a hasty, light-footed fire, that hurried low over the crackling grass, leaving bushes in its path unscathed, but the smoke rendered visibility confused. I watched narrowly for escaping wild life, but saw nothing. Then the fire passed us, jumped across the road and was soon racing away from us. It was then that I noticed something scudding through the unburnt grass towards the line of fire and smoke. A hare leaped effortlessly over

the flaming grass and bounded away through the burnt stubble towards a green bush—a minute later I saw another hare repeat the move.

★

Then a small leopard (it was known that the beat might hold a leopard) came streaking through the line of fire, and crossed the burnt grass into the green cover in a grey flash—one of the guns told me later that he had also seen it, and both the driver and I had a clear view.

Nothing else came our way, but what we had seen was remarkable enough. The beasts seeking escape from the flames actually ran into it and past the line of fire, and so gained the safety of the burnt grass and green bush cover. It was much the most sensible thing to do in the circumstances—perhaps animals react differently when the fire is slower and deadlier, as in forest fires. I cannot say whether intelligence or instinct guided their escape, but doubt if I would have had the sense to do what they did had I been caught up in that fire. I may have realized the safety of the rapidly burnt grass only after the fire had pursued and overtaken me.

MUNNA

M. Krishnan's
Country
Notebook

ONE gusty night eighteen months ago, when we were sitting down to dinner, a miserable little kitten crept in and crouched in a corner, regarding us from hostile but expectant eyes. It was very small and very ragged; it could not have been over a few weeks old, and clearly it had wandered far and was tired out. We had no intention of adopting a cat, but we gave it a lap of milk and allowed it to sleep in the kitchen.

Next morning it was there for breakfast, looking somewhat less lost, and though it was away all day it was back home for dinner. Now Munna is a husky, semi-wild tom, extremely self-assured. He lives largely on my roof and the roofs of neighbours, but during the rains he comes indoors. And, of course, he continues to visit us at meal-times.

This is not the story of my cat, for Munna is not my cat; he belongs only to himself. Nor is this a biographical sketch—only a record of stray observations.

★

Cats are among the most pre-daceous of carnivores, wonderfully equipped with instinctive and bodily skills for hunting. However, it is a feature of feline life that the young are schooled in the art of stalking and slaughter by their mother, experience guiding inborn talent. Having no maternal guidance, Munna learned his murder craft the hard way, and watching his adolescent efforts I learned a thing or two about the hunting of cats.

The first prey I saw him kill was a skink, when he was quite a small kitten. He ate that skink, tail and all, and when he was older he would pounce on imprudent geckoes that had ventured too far down and devour them. This revolting hunting was all he lived for during the first few months. My garden had a thriving skink population before Munna's arrival, but now I see very few. He also killed young bloodsuckers though he rarely ate them, and the size of his bloodsucker, victims increased with his age. Today, he cares no longer for such easy game.

Squirrels and rats are his proper quarry now. There is a thick hibiscus bush in my garden, overgrown with creepers, and young Munna used to hide in this cover and wait, hopefully. When the squirrels climbed down the compound wall, some twenty yards away, he could no longer contain himself. He would streak out of the bush at them, trying to surprise them by sheer speed—naturally, he never caught one.

★

When he spied a squirrel on the roof, he would again try surprise and speed, rushing to the *Gliricidia* tree that overhangs the roof, scrambling up the trunk in frantic haste, and charging across the tiles. It took many months for him to learn that a cat must bring inexorable patience to the stalk and cannot afford a single false step, that it is necessary to get close to the quarry before pouncing.

Now, when he is stretched at ease on the roof in the shade of the *Gliricidia* and hears squirrels just across the gable, he pricks his ears slowly in a bored gesture,

without bothering even to gather his limbs together. Sight plays a very important part in his hunting, but his exquisite ears often help to locate the quarry before sight takes over.

When Munna wants to get on to a wall or a window sill that is too high to be reached in a jump, he does not climb laboriously but resorts to a trick that is more impressive even than the ability to clear the height in one leap. He leaps straight up towards his objective, touching the wall a little over half way up; then, at the exact moment of contact, he kicks down with his hind legs, and this take-off against the wall has sufficient propulsive force to carry him up to the landing he wishes to reach.

★

The entire movement is so quick and casually made that close watching is needed to spot the exact technique, but I have forced Munna to repeat this double high jump again and again, by placing something that he specially fancies inside a room and closing all approaches except a ventilator six feet from floor level. He takes off from a standing start, close to the foot of the wall, establishes contact about 3½ feet up the wall, and reaches the sill on the rebound off this contact.

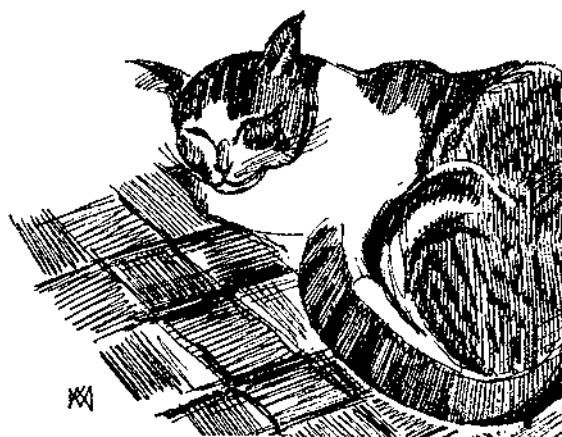
The astonishing thing about the feat is that the rebound off the wall is vertically upwards. If we tried to do such a thing, we would get violently thrown off the wall, away from it, but that is because our legs (especially the feet) are so differently made from a cat's.

This trick is not peculiar to Munna. I have seen other cats using it, and I believe other quick-footed quadrupeds are also capable of it. I must repeat that the kick against the wall is so deft and rapid that unless one is looking for it, and watching the animal sideways, one might easily miss it.

I labour this point because naturalists have wondered how the African Klipspringer (a little antelope with agile feet) can be at the base of a sheer-sided rock one moment and on top the next, unless it can clear a vertical height of some 25 feet from a standing start. It could well be that it uses the double jump trick, its elastic hooves and skill in jumping being well suited to the technique.

The fact that leopards can jump out of enclosures with steep walls that are safe for holding tigers is very likely due to the same cause: the heavier and less expert-footed tiger cannot perform the trick but, apparently, the leopard can.

Recently, we were forced to think quite seriously of banishing Munna altogether from the premises—if we could. During the early days, when just-dead bloodsuckers used to appear in realistic postures in the most unexpected places, we had endured the vagaries of a bloodthirsty adolescent, learning to kill, even summoning strength for our endurance from philosophical tales. But now dinner had become an ordeal, because he was always there, ahead of us, demanding satisfaction first and mewing incessantly till fed.



This preprandial mewing grew more urgent and plaintive each night, and gradually it began to tell on our nerves so much that we found ourselves with little appetite for the meal. I lectured my family on the obvious fact that it was we who had built up the situation, by yielding to his demands with increasing speed each night, and pointed out that the right thing to do was to somehow make him understand that well-behaved silence would be adequately rewarded.

We tried everything, ignoring him with set faces while we hurried through a tasteless meal, stern words, sorrowful words, even corporal punishment. When he was scolded, or tapped on the nose with a folded newspaper (an admonition that dogs understand) he shut his eyes, laid his ears back, and turned away in shuddering distaste, continuing to mew with increased plaintiveness in a subdued, resigned minor key. He was just puzzled and stupid and submissive, and half way through the string of Latin plant names that I invariably use for scolding animals I would stop, surprised at the rough boorishness in my own tones.

Then it occurred to me that he might comprehend a spiteful hissing, for cats hiss at each other in disapproval. My first attempt was somewhat half-hearted, for just as I drew in air for the effort I remembered what Lamb had said—that only a snake, a goose and a fool hiss. However, there was a noticeable response. Munna turned away with eyes shut and ears laid back, shuddering delicately as usual, but he was silent. He waits in expectant silence for his dinner nowadays.

GECKOES



FOR some time past a young gecko has taken up residence in my writing-table, picking its way through the jungle of pencils,

brushes, inks, paints and papers with familiar assurance, running up and down the teak-wood legs with airy grace. This table is a Health Robinsonian contraption, with sectional ground glass tops that can be tilted and set at different angles.

All day the gecko hides in the crevices in the framework, sometimes even in the thick, assorted cover on top. It is very young and very small, and quite sure of itself. I know exactly how long it is from its snout to the tip of its restless tail, for once I saw it stretched obligingly along my footrule—it is just a shade over 2½ inches in length.



By daylight it is light brown in colour, with only its tail marked with alternate rings of dark brown and buff; it looks more like a painted miniature of an alligator than a baby gecko, for its head is long in proportion to its tiny body, its jaws are lean and its limbs prominent. Its tail is thin and cylindrical, not at all like an alligator's tail in shape, but shape is not everything in resemblance—the annulations give the tail a rugged, toothed look in spite of the smoothness. Incidentally, this slim tail is highly expressive, besides serving as a balancing organ. It is often carried in a gay, upward curve, and it twitches wickedly from side to side while the rest of the gecko is utterly still, watching an insect creep nearer.

At night, with the strong electric light directly on the infant lizard, it is even less like the squat, pallid, thick-bodied, fat-tailed creature that it will ultimately grow into. Its body is a warm, glowing orange then, like human fingers closed over the glass of a flashlight. Even a gecko can have a fragile, quaint charm in its infancy, and it can jump across intervening spaces with volatile ease. Of course it can jump across a gap even when it is adult and heavy, but the effort is deliberate and cautious then.

At times, when a mosquito or some other insect has settled on the lamplit whiteness of my jubba, the little hunter jumps on to my back and commences a stalk across its expanse. Twice it ran down my arm, along the bared forearm (where it seemed to find the hair in the way) right down to my fingers, before taking off for the nearby table. I could hardly feel it on my skin.



Although it can clear gaps that it will never attempt when grown, its judgment of space is immature and occasionally its impetuous leaps fail to get it across. But it is so insubstantial that it falls without the characteristic smack of grown geckoes, and takes no harm from its falls.

Not that adult geckoes are often injured by their falls. I have seen a gecko fall on to stone flooring from a height of 12 feet, with a loud plop, remain immobile for a minute stunned by the force of its fall, then scurry along the floor and up the wall to the roof again. Sometimes, however, it comes to grief, when its toes are injured.

A big gecko that used to inhabit my front verandah fell from

COUNTRY NOTEBOOK

by

M. KRISHNAN

the lintel of the doorway to the cement floor, a drop of 7 feet only, but it landed slightly edgeways and injured the toes of both limbs on its right side. It tried to climb the wall repeatedly, but could no longer achieve the necessary grip. Only a few moments before its fall it had raced across the wall and jumped a six-inch gap to get to the lintel. After a while it gave up trying to climb the wall and retired to a dark nook, behind the door. Next day it was on the wall again, but moving with obvious difficulty, and the day after it was no longer to be seen. Perhaps it fell a prey to some lizard-eater, after another fall.

The remarkable thing about fallen geckoes is that they retain their tails. When one of these lizards is seized by its tail, that organ grows suddenly brittle and breaks off at its base—the tail then writhes about with a brief, violent life of its own, and while the enemy is chasing the frantic appendix the main body of the lizard scuttles away to safer regions. Later the lizard grows another tail, a most useful appendage to an animal that lives so often against the pull of gravity. But even when a gecko falls from a considerable height its tail rarely gets broken off, which shows that it is not physical shock but some voluntary or fright-induced muscular contortion that renders its tail fragile when seized by an enemy.



Geckoes recognise their prey by the movement of the prey, and though I think their vision is not as good as ours they can spot an ant or a fly from quite 15 feet away. When in doubt over the edibility of an insect, geckoes have an amusing habit of sidling quietly up to the suspected quarry and licking it with their blunt tongues, almost as if sampling it. They seem to have no instinctive knowledge of what prey is edible and what is not, and learn by experience, sometimes sad. I have seen a gecko swallow a baby scorpion without fuss or effort, and with no regrets, and I have seen another, which made a pass at a blister-beetle, retire in obvious pain and discomfort; for almost an hour afterwards it kept opening and closing its mouth in a gasping manner, protruding its tongue, and wiping its mouth against its fore-feet as if to brush away the irritation.

The little one that lives in my table seems to go largely by size in determining whether to attack an insect or not. It lives mainly on small, flying insects attracted by the lamplight, and I have not seen it tackling anything large than a minor moth. Its reaction to a cockroach was interesting. It was unwilling to attack the monstrous prey, but was fascinated by it all the same; perhaps it sensed, in some dim, inborn manner, that cockroaches are part of the fare of its tribe. It followed the crawling insect right across the floor of the room, keeping just a few inches behind, halting or turning as the quarry halted or turned. If I had waited and watched, I might have seen some development of this vague, slow interest of the gecko, but my reaction to a cockroach is both definite and swift and so there were no developments.

BAUHINIAS

M. KRISHNAN'S
Country Notebook

COUNTRY NOTEBOOK

(Continued from Page I)

Decorating The House

SUPPOSING a typical citizen of India, with vague notions about our fauna, were to take an evening walk along a lonely country road, and supposing (this is more wildly worthy of supposition) a South American jaguar were to step out of the bushes right in front of him, his reactions would be unpredictable but one thing is certain—he would identify the beast unhesitatingly and, allowing for everything, more or less correctly.

Mind you, there are no jaguars in India, not even in our zoos. I think, and our citizen may not have seen one in a book. But in calling it a leopard or a tiger (I have known experienced shikaris mistake a massive leopard for a tiger in the yellow evening light and the jaguar is heavier built than any leopard) he would not be too far out, for his instant placing of the apparition as one of the greater cats would be sound.

In spite of our lack of natural history, most of us can place many strange animals fairly near. There were two pumas in a cage in the Mysore Zoo and a rustic identified them, not as lions, but as a minor race of lions! Confronted with a dingo we would call it a wolf or a jackal, and we would have no trouble in recognizing a grizzly as a bear. Most beasts and many birds have pronounced family features that we know; we can tell, by their looks, where they belong. It is not so with plants.

The classification of plants is based on floral structure and only by dissecting the flower can a botanist determine the systematic position of an unfamiliar plant.

Once, when I was in college, I was severely ragged by senior students for my refusal to pronounce opinion on some malformed neem leaves—till the Professor justified my attitude and confounded them by producing strikingly similar leaves from another plant (though he pointed out to me, privately, that neem leaves have an unmistakable smell). His students will always remember the late Prof. Fyson (even if they are not sufficiently familiar with his pioneer work to realize its value) for his quick sympathy for the under-dog and his patience with the mentally slow.

Even now, when I am called upon to identify some quite common plant that I do not know, I

(Continued on Page II.)

often escape by pointing out that it is not in flower and that it is risky and most unscientific to go by leaf and habit. However, there are a few plants whose leaves have generic identity, and the Bauhinia is one of them.

Bauhinias belong to the tribe of the tamarind and the Cassias, the Gul Mohur and the Gliricidia. They have large and lovely flowers, flushed with purples and reds, or yellow, or white, and their leaves are always cleft into two lobes, like the footprint of a goat.

It is this leaf that gives the genus its name. "The name Bauhinia was given in honour of John and Caspar Bauhin, sixteenth century herbalists, the twin leaflets suggesting two brothers," say Blatter and Millard.

Bauhinias differ considerably in size and habit. Some are quite small shrubs, some are large shrubs that are almost small trees, and some quite handsome trees that are used to decorate gardens and avenues—*B.variegata* is such a tree. And then there is *B.vahlii*, the giant liana sprawled a hundred feet across some lofty tree, its stem thick and woody in its lower reaches and pliant and green on top, its great cleft leaves well over a foot across. But big or small, all of them have the typical two-lobed leaf of the genus; and all of them have the flat pods of the tribe, though these vary in size as much as the leaves—the pods of *B.vahlii* are like broadsword.

Bauhinias are familiar garden plants and I think they deserve even wider culture, especially in public parks. No Bauhinia lacks beauty of flower and foliage and even when it is leafless and naked (as some species are during the cold weather) it has beauty of build.

Not that Bauhinias have no utility, besides looks. Their bark yields useful fibre, the roots and bark have medicinal value, and the leaves are used for covering bidis or stitched together into leaf-plates. The young leaves and flowers are used in curries and the buds are pickled. Yes, they have many uses besides serving to decorate the garden, but I know of one that others may not know. The larger Bauhinias can be used to decorate the house.

In May and June most Bauhinias are through with their flowering and the dark, pendant pods replace the flowers. If you pick three or four small branches with well-formed leaves and pods (the pods should not be fully matured) and cut them with plenty of stem to spare, you have material for an original vase. Store the twigs in a dry place and in due course the leaves will turn olive and then brown without shrivelling. Now coat the leaves and the pods very carefully and thinly with a wax polish (bees-wax melted and mixed with turpentine is best) and then wipe away the wax with equal care, and you will have perennial sprays for a large vase that will lend distinction and dignity to any room, especially to a room with simple furnishings.

The hanging pods give the arrangement emphasis and strength and the shape and set of the leaves retain their charm in spite of being dried. If the leaves (or pods) fall off, it is a simple matter to refix them with a little glue or cellulose cement—perhaps it would

be just as well to provide them with this reinforcement before applying the wax polish, so that they will not come off.

My drawing, made from a live branch (on the tree) does not convey a fair idea of the decorative qualities of such a vase, for with the cut twigs you may arrange angles to the best effect and eliminate leaves if necessary. Two trees commonly grown in gardens—*B.variegata* and *B.purpurea*—provide excellent sprays for such use, and if you live in a grand mansion and have a really magnificent mind you may try an arrangement of *B.vahlii* sprays. I think, I am almost sure, that the species illustrated here is *B.purpurea* (the Purple Bauhinia), but I will not commit myself. You see, it is not now in flower.

Bauhinia sp. - 8-5/54
PODS NOT FULLY DEVELOPED



M. Krishnan's

Country Notebook

CAVE
CANEM!

ON one side of the street there are six houses and on the other eight, trim villas each in its own compound, each with a creeper on a trellis lending height and privacy to the wall separating it from its neighbour, a gravelled path leading to the porch and securely-latched gates. No two are quite the same in size or shape, their tidy gardens are differently laid out, and though most of them are yellowish outside they vary in colour from cream to ochre—there is even one which is startlingly sea-green in its distemper. But in one thing these suburban homes have uniformity, on every gate there is a board that carries the legend, "Beware of the Dog."

True that each warning is in a different lettering and that No. 8, with a narrow regard for grammar, sports a slight variation, "Beware of Dogs," for it houses half-a-dozen pedigreed Alsations. But even No. 6, which has no dog and no occupant, carries the board. In this semi-detached colony live people of many complexions and profession, most of them well-to-do. They are good neighbours and good citizens, but all have to be on guard against the petty thief who comes in so plausibly with a basket of something to sell and walks out with the more portable assets of the verandah-cum-sitting-room, and the not so petty thief who climbs walls in the dark. A dog, especially when its ferocity is boosted by a prominent board asking all comers to beware of it, discourages unostentatious visitors.



The watchdogs of this street differ in size and colour even more than their homes and owners do. I don't think anyone can take the dog at No. 9 really seriously—a shy, small bundle of silky hair, of indefinable origin, whose reaction to any visitor is to retreat in silence and hide in the bathroom. No. 10 has a frisky young pie-dog, handsome, agile and alert. He is early with his bark when someone approaches his gate, but it is a frequent warning and no one heeds it much.

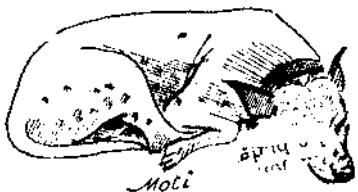
The guardian of 9A, where I am staying, is partly Bull Terrier. The cobby, powerful build, the ears and jaws, and the grey Dalmatian-like spots that break out so often in B.T. crosses, speak for themselves, but I cannot guess where the rest of

To some extent territorial feeling is responsible for this outbreak of ill-will, but I do not think that is the real motive. Naturally, each dog resents any trespass or attempted trespass into his territory, and is surest of himself on his own ground. Even a long, vigilant waiting for opportunity to attack and dominate a neighbouring canine is understandable—I was given, on inquiry, a graphic account of how one of the Alsations broke bounds and nearly murdered poor little Rosie in her own garden. But this ravening mass hostility towards the newcomer on the street is due, I think, to a different motive.

I noticed that when the most down-at-heel human tramp walks the street, even the aggressive Alsations are silent unless he approaches their gate. But when a stray dog, or goat, or donkey, ventures down the street, every canine voice is raised against it at once. This is not a mere "demonstration," a loud intimidation—there is a note of impatient yearning in the voices that is unmistakable to one who knows dogs, a yearning for blood and slaughter. Strangely enough, these watchdogs have not tried, so far, to jump the wall or gate, a thing that most of them could do easily if trained. I have not the slightest doubt that if these dogs were let loose they would fall on their unfortunate street

cousin and tear the victim limb from limb—before turning on one another to settle long-standing disputes.

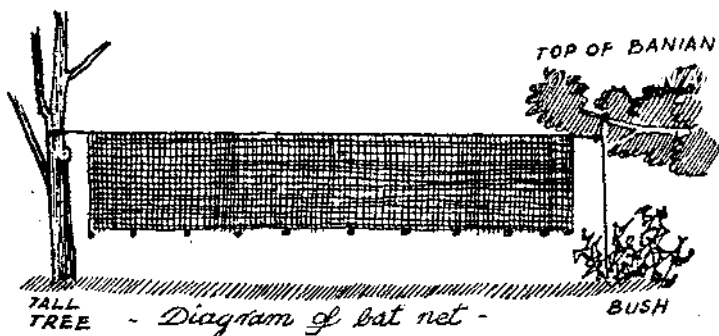
It has been explained to me, by a resident, that it is lack of occupation and exercise that is responsible for the lurking murderous trait in these dogs. It is well known that dogs kept continually chained grow savage and treacherous and snap at people within their reach. It was argued, analogically, that when dogs are kept confined to their compounds without sufficient hard exercise (it is a fact that these dogs do not get the exercise they should) they develop certain antipathies. I do not think that explains their behaviour. I am second to none in my admiration for dogs, but we can understand them best only by an unsentimental appreciation of their values, and I think this unanimous blood lust is really due to a pack feeling of strength and hostility, a desire to hunt the slouching fugitive on the street.



Moti came from. His lubberly, pacifist temperament suggests that one of his parents was a benevolent vegetarian creature. He greets visitors with a lick of his broad, wet tongue, and his thick, horizontal tail beats a tattoo of welcome on the front verandah chairs. Unlike the typical suburban watchdog, Moti is innocent of snobbery—he sees beyond the beggar's rags and the resplendent attire of the nob to their essential humanity.

The dogs of other gates are no less contented and good-natured. But suddenly this placid, whimsical canine society is smitten with a snarling, yickering mass hysteria. A stray dog has entered the street, and war is instantly declared. The Alsatians rear and paw their compound wall and crane their necks to see over it. Their hoarse, frenzied chorus is taken up by every dog in every compound. Moti rushes to the gate with an eager, bloodthirsty whimper and hurls his bulk against the bars; the pie-dog snarls with a guttural savagery so different in tone from his formal warning bark; I am shocked to find even the shy, small silky one at No. 9 yapping viciously.





A NET ACROSS THE DUSK

ONLY once have I seen fishermen netting flying-foxes and the operation was incomplete in a detail then. I daresay others also net them, fruit-bat flesh being prized by eaters of strange meat, but the two men who came that evening asking permission to use private grounds were fishermen.

They had made their own rectangular net, 25 yards long and 5 yards high, of Vandyke-brown four-stranded twine (the kind of twine used for fishing nets) with a four-inch square mesh: the net was surprisingly light for its spread.

They chose a banyan in fruit, with a number of bushes and small trees encircling it except on one side, where a 30-yard stretch of open ground separated it from a tall tree. A long cord was run through the upper hem of the net and one end of this cord fastened to the tall, outlying tree some 25 feet up the bole—the other end was drawn through a loop of string tied to the top-most branch of the banyan and then down to earth. By hauling this free end the cord was stretched taut between the two trees and the spread net hoisted high, its lower edge fluttering in the air some six feet above ground-level. Stones were then tied to the lower hem to keep the net flat and immobile.



By 6.15 p.m. the net was in place, a thin, reticulate, vertical screen across the open space leading to the banyan, visible against the glowing sky but probably not to be seen from the air

against the darkening green of foliage and grass.

The arrangement was quite simple. The man who had control of the free end of the cord sat in a bush at the foot of the banyan. As the giant fruit-bats swooped down to the figs they would get entangled in the net, instantly the man would release his cord and the weight of bats and stones would bring the net down to the earth; the bats would then be killed and disentangled from the mesh at once and the net hoisted up in the air for a fresh batch of flying-foxes. It was explained to me that the bats had useful teeth and would bite through the mesh unless immediately despatched.



The flying-foxes were dusky at 6.45 p.m. The litter of chewed fig pulp beneath the tree showed that some of them patronised this banyan—these bats chew their fruit, suck in the juice, and spit out the rest. By half-past-six the net was invisible against the warm grey of the sky, and both men well hidden in bushes, but I had to go away although I had secured permission for the netting on the express understanding that I would be allowed to watch. The men said that however much I tried to be part of a bush, my white clothing would betray me to the bats and scare them away. I too, thought that likely and so I retreated a hundred yards to a porch and contented myself with watching for flights of fruit bats.

They came at the appointed hour, in small batches and slow-

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winged parties, flying steadily south and fairly high. Some of them circled lower, almost right over the banyan, then passed it and dipped steeply to a stream beyond, swooping down to kiss the water lightly for a sip before resuming their plodding journey—that is the way these bats drink and the manoeuvre has been mistaken for an attempt at fishing!

At 8 o'clock the men left, satisfied that their luck was out that evening, and I left with them. Didn't I begin by telling you that the experience was incomplete in a detail? No flying-fox was netted. A kit of four insectivorous bats was flitting about the place throughout, erratic, insubstantial shadows that ducked under the net or shot suddenly upwards to clear it. The men had no interest in them, for even in their ignorance of the radar equipment of these creatures they knew empirically that they were not to be caught. Moreover, it was explained to me, that they were no good to eat.



However, I learned quite a few things about flying-fox meat from these men. Considering how common they are, the market value of these bats is surprising—a freshly killed (or live) specimen in good condition can fetch well over a rupee. Apart from the reputed medicinal potency of the blood, the flesh is said to be of special value to consumptives and people suffering from debility. I was assured that it was only the skin that smelled so horribly and that a properly skinned and roasted fruit-bat had no smell and tasted rather like chicken, only more so.

A hair-oil boiled with flying-fox blood is useless for baldness, *experto crede*, but I wish some nutrition research enthusiast would work out the food value of the flesh—it is quite likely to be high if the exclusive diet on which it has grown is an indication. I know this wish sounds somewhat gruesome, but then I have an economical mind. Flying-foxes are regarded everywhere as unmitigated pests and scientific naturalists in India have recently recommended the use of explosives at the roosting trees as a sound eradication measure, blowing up the bats en masse. To many that may seem even more gruesome, and anyway it is a waste of good meat if fruit-bats are as nourishing as they are said to be. After all, we eat the oddest things and so much depends on how a thing is dished up and what it is called on the menu card—and on the small fortune you pay for a bite of it at some plastic-varnished air-conditioned, "superior" eating-house.

AVIAN COURTS MARTIAL

by M. KRISHNAN



THE "lynching" of one of their kind by Common Mynahs and Jungle Babblers, and the execution of a crow by crows, have been reported in the correspondence columns of "The Statesman" recently, and an explanation invited. The resigned passiveness of the victims has been remarked, and a comparison to courts of justice suggested.

I have read similar reports of avian tribunals, but shall not refer to them as the "court of justice" explanation is bad both in fact and in law. I do not object to the comparison because there is no considered justice in these assaults by birds on one of their feather. No serious student of jurisprudence will pretend that rabid injustice has not been dispensed at human judicial tribunals. There have been many bloodthirsty courts in our history where the procedure was a farce and everyone knew the verdict before trial opened, but they were content to pronounce the sentence—its execution was left to others.

"I'll be judge, I'll be jury," said cunning old Fury:
"I'll try the whole cause and condemn you to death."
Lewis Carroll tactfully refrains from adding what Fury did to that mouse. It is as one interested in law, not as a naturalist, that I object to the comparison!

An Explanation Goes

Having made this helpful contribution, I make another, as a naturalist this time. No explanation can cover all intraspecific attacks of individuals by groups, in gregarious birds. Such attacks are known among gregarious mammals also, but are most often noticed in birds. In the old days a moralistic explanation was sometimes advanced, that it was the punishment of a culprit by plebiscite, intended to secure social welfare. We know now that birds are quite incapable of moralistic thought or self-conscious appreciation of communal good. That explanation must go.

My point is not that there can be no explanation; there can be many. But first we must consider what we know of avian so-

cial life, for in trying to explain these attacks we are trying to understand bird behaviour better than the birds themselves.

Clearly no question of sexual motive or extraspecific hostility is involved in these attacks. Crows and mynahs are intelligent as birds go, but we may safely rule out the motive of conscious punishment of a crime. Birds have no critical intelligence. In fact their social life is totally independent of an intellectual comprehension of rights and duties. Is it because of their freedom from the imposition of the carping, petty, analytical intelligence that rules our lives so inexorably that we find birds fascinating?

Emotional Language

In a bird clan social function and communications depend largely on patterned urges and responses which may be visual, vocal, tactile or based on some other sense perception. But do not imagine for a moment that because communication is not based on intelligence but on instinctive and emotional gestures birds are automatons. On the contrary, so many circumstances condition this "emotional language" (as Dr N. Tinbergen puts it), so personal and intimate can these expressions and reactions be, that no scientific observer can deny the existence of a bird mind, capable of much varied and sensitive apprehension. Thanks to the recent work of scientific naturalists, the idea that birds (and even lesser animals) are automatons whose lives are merely a chain of rigid, mechanical actions and reactions has been fully exploded.

Certain of these responses are released by specific "gestures" (I use the term loosely, to indicate both visual and acoustic signals), called "releasers." Releasers are of special value in the social behaviour of animals, particularly in their intraspecific fighting where they may serve to promote or inhibit hostile effort. In

gregarious birds these gestures often become highly personalized and are used only between birds knowing one another. Let me quote Tinbergen on this point: "Not all communication, however, is based on releasers; there are certain complications. As we have seen, many social animals respond to the species' social releasers only when provided by certain individuals, which they know personally. In such cases personal connexions, established through learning processes, confine the reactor's responses to signals from one or a few individuals only; they still respond to the releasers of the species, but only after they have narrowed their attention to particular members of the species."

That is the barest possible background against which we can try to understand these intraspecific attacks. In none of the instances reported by correspondents to "The Statesman" is there any detailed account of the circumstances anterior to the attack. We do not even know that the individual that was attacked by the group belonged to that group—though of the same feather, it might have belonged to another group. Among birds that go about habitually in company, such as the babblers (or mynahs during certain periods, while feeding), the company is strictly limited. No outsider is tolerated, usually. Here we may note that birds are well able to recognise members of their own party, exceedingly well.

Clannish

Territorial feelings may also account for hostility towards intruders. In July 1951, I was staying at a forest bungalow and the gate of its compound seemed to limit one side of the domain of a party of Large Grey Babblers—another party of these highly clannish birds inhabited the scrub beyond the gate. One morning a babbler from the scrub crossed over into the compound and was promptly mobbed by the bungalow party. The assault was technical: a voluble, excited attempt at encircling the gate-crasher, which retreated to the scrub in haste and was not pursued—there was sufficient threat in the attempt to constitute an assault in law. It could be that if that intruder had come far enough in, if it had not been so near the gate that escape was easy, there would have been more action.

Flight from what hurts or threatens is such a natural and widespread reaction among animals that the victim's lack of attempt at escape does seem surprising, at first sight. However, it could be that it does not respond to the threat gestures of its antagonists (this preliminary display by the attackers has probably been mistaken for deliberation before attack, by the older naturalists) because those gestures have no compelling force or "meaning" to it, because they do not release either

flight or appeasement responses in it. Of course encirclement, confusion, and bodily injuries caused by actual attack may all be reasons for the victim's apathy—illness or injury prior to the attack may also be causes. There is no intelligent appraisal of chances of escape or acceptance of the inevitable—if that bird were capable of intelligence, it could escape.

A Safeguard

A group attack can, of course, be directed against a member of the group. There is usually some safeguard to prevent actual fighting in gregarious animals, and threat gestures are often sufficient to assert rights. Fighting out of sexual rivalry or over rights of precedence is confined to the rivals and the rest of the clan takes no sides but where a basic "right" is violated the protesting bird summons clan aid and usually gets it. Lorenz describes the amusing behaviour of jackdaws when a stronger bird tries to usurp the nest hole of a weaker member of the colony. The aggressor assaults the rightful holder and appropriates the site by sheer force; the dispossessed bird indulges in a proprietorial "zicking" call which soon changes to an outraged "yip-ping," this brings all the jackdaws within earshot to the nest, jostling one another and yipping furiously, and this sudden babel usually breaks up the fight, "particularly since the original aggressor participates in the yipping!" Lorenz explains how this is not a cunning move by the miscreant to divert suspicion from itself by crying "stop thief" with the rest, but an uncontrollable reaction—he adds, "I have often seen cases, however, where the aggressor was very definitely recognized by the advancing members of the colony and was thoroughly thrashed if he persisted in the attack."

Conceded "Rights"

It is likely that some such communal disturbances, initiated by the outraged calls of a bird defending some usually conceded "right" against an aggressor, brought about the "lynchings" reported. But the culprit need not have indulged in violent aggression—its culpability may be accidental or beyond its control.

That brings us to the crows. I have heard the theory that an injured or sick bird is sometimes executed by its clan and that this is a communal safeguard, for obviously an incapacitated bird must be a drag on the clan and cannot perform its duties by the next generation efficiently. There is, of course, no suggestion of conscious action in all this—the birds act instinctively in this manner. This is not a variation of the "court of justice" idea and is scientific.

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AVIAN COURTS MARTIAL

(Continued from Page 1.)

ally sound, but still it is a speculative theory.

I have seen crows pecking a crow to death—I am sure many others have also witnessed this happening. I cannot attempt any explanation of the murder because I did not observe the incidents that led up to it, and had not studied those crows closely enough to know their identities or their relationship to the victim, i.e., it is my ignorance of "the facts of the case" that obscures my understanding. However, I am happy to provide an example to the contrary from my own observation. I have seen a party of crows trying to rouse a member that had fallen to the earth with man-inflicted injuries. They flew low over it, repeatedly flying just over its prostrate, struggling body, evidently trying to induce it to follow them; later they alighted and settled around it, cawing agitatedly; they approached close and then hopped away. That wounded crow took nearly 15 minutes to die and only when it was quite still did its companions fly away.

I trust I have at least explained why there cannot be any one explanation of intraspecific mobbing and how it is useless to theorize unless all the facts are

known, especially those anterior to the attack. No little bird can tell us the truth about these things because, as pointed out already, we are attempting to understand motives far beyond avian understanding. However, our knowledge of bird behaviour is much sounder and more comprehensive than what it was, and an expert observer can often account for an avian mobbing—perhaps much more certainly than we can explain why human mobs sometimes react as people did during the recent Kumbha Mela.

M. KRISHNAN'S "COUNTRY NOTEBOOK"

Arachis Hypogaea

IN most parts of peninsular India the groundnut farmer heaves a long sigh of relief when the rains arrive in July, and sleeps soundly at night. I circumscribe the terrain of his satisfaction because it is unwise to commit oneself to statements on the versatile groundnut; it is sometimes sown much later in the year, especially in the South where it is commonest. But in most light, monsoon-fed soils where it is a main crop, and not a rotation crop with cotton, the seed is put down in May or June and by mid-July, if the rains are punctual, the seedlings are up and spreading across the brown earth in little clumps of green.

That is when the farmer heaves his sigh, for now he need only guard the crop by day, against cattle—more against errant hooves than greedy mouths, for though dry groundnut foliage is valued as cattle fodder, the beasts care little for the young, bitter leaf and a thorn fence will keep them out. But till the monsoon comes and the crop is up the farmer must watch his field every night to keep away wild pig, which know just when he sows and where the buried treasure lies. Of course it is not only the pig that bothers his nights; the prospect of delayed rains worries him no less. I don't suppose his sown seed will take any harm from the monsoon being late by a few days, but the sooner they start sprouting the sooner the crop will mature and if this is held up till the downpours of late November he may lose much. Heavy showers can ruin the ripe crop.

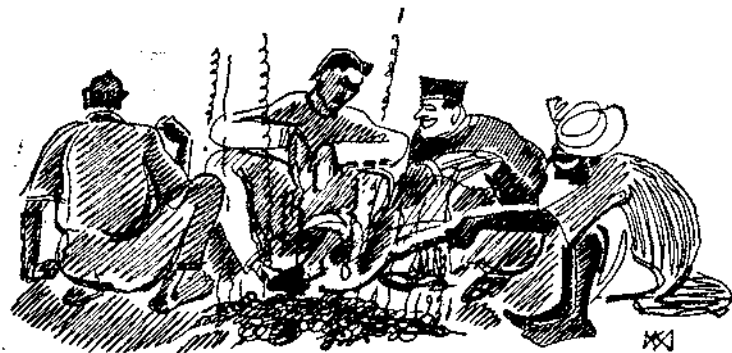
This is no dissertation on the varieties of groundnut and the history of its cultivation, but it is a curious fact that the plant, a native of South America, came here by a devious route only some 120 years ago. And for

nearly half a century India has been the chief groundnut growing country in the world. To no other exotic food crop have the people of the country taken so wholeheartedly. Throughout peninsular India, wherever it is not wet enough to grow rice, groundnut is not only a prime commercial crop but also an important part of the people's diet.

Four standard books on Indian agriculture that I consulted list the groundnut as an oilseed and comment on the uses of the oil in cookery, in soap manufacture, in lubrication and as a possible fuel—even the high protein value of the residual cake and its merit as cattle feed and manure is mentioned, but there is not a word in any of these books about groundnut being so often, in city and in village, the poor man's snack and the snack of the not so poor, or how excellent and nutritive it is.

Groundnut thrives on poor soils and with hardly any manuring, the bacterial nodules on its roots helping to provide its own supply of nitrogenous substances—it is like other leguminous plants in this and its merit as a rotation crop lies in this. In light soils the harvesting is a ridiculously simple process; the plants are pulled up and the pods come out with the shallow roots. For this reason it is sometimes said that groundnut is an easy crop and a lazy man's crop. A ten-year sojourn in a groundnut area has left me with very different impressions.

When the plants are fully grown, dark yellow flowers with showy, papilionate corollas appear on the lateral branches. The groundnut flowers like any other plant, but as soon as they open the flowers start pushing themselves down into the earth—this subterranean bias of the fertilized flower is a marked peculiarity of the plant and the pods will not develop unless so buried. By



the end of September, the crop sown in June will have flowered and fruited, and in October or early in November the pods will be fully matured. The maturing process is quick. The inside of the pods is white and pulpy, like wet pith, and the seeds are small and thin—a fortnight later the pod has a thin, dry coat and the seeds are fully formed and oily. However, not all the pods mature together and so a certain quantity of immature pods cannot be avoided at the harvest.

Pig love the young groundnut, and so do I. For almost a month before the harvest the farmer has to sit up every night in a machan built in the middle of his field to guard against nocturnal pig—though he is safe from me and men with like tastes, for we are diurnal visitors to his crop. He shouts and waves his hurricane lantern about when he suspects that pig are near, and he shouts and waves the lantern at intervals even when he suspects nothing, in a prophylactic manner. The nights are loud with the howls of groundnut watchers in such places, and the crop is the prize of continuous, unrelaxed vigilance, sore throats and the expenditure of much kerosene. But though this great effort can and

does ward off serious damage by the pig, it is unavailing against the rain. Downpours when the crop is ripe can still be the farmer's undoing. Groundnut is no easy crop to grow, believe me.

However, it is grown, thank heaven, literally. I remember reading a passage by Thoreau on the sufficient joy of being alive in a world where one can have cobs of corn, boiled in brine, to eat. I have often thought how right he was and undoubtedly tender, boiled maize is creamy and delicious, but I am sure Thoreau could have achieved a more ecstatic passage had he known tender, boiled groundnut. You choose pods almost fully formed (but not quite), wash them well and boil them in salted water, and then eat the creamy richness within them, pod by pod.

The fully formed nuts should always be eaten with jaggery, to condone their tendency to promote biliousness. I don't know how jaggery does this; I only know it does. Science will, no doubt, discover the reason analytically and afterwards, as it has the soundness behind so many dietetic habits of the country. Mature groundnut is probably tastiest when baked in an earthen

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COUNTRY NOTEBOOK

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pot, when its crunchy, nutty flavour is brought out, but taste is not everything in the pleasure of repast. The best way to eat groundnut is to eat it roasted, on the field where it grew.

You ~~go~~^{set} out in the evening with a companion or two and walk ~~purposefully~~ on till you reach a chosen groundnut field, with the cultivator in the middle inspecting his crop. Having found him, your step and approach become suddenly casual. You discuss the weather with him and the prospects of the jowar harvest, yet to come; you hold forth on bullocks and fodder grass and the quaint habits of those who cultivate rice. Presently he invites you to sample his crop and you accept the invitation, still casually. Then he pulls out a big armful of groundnut plants, puts them down on a bare patch of earth and heaps handfuls of the dry leaves and twigs over the pods. He starts the fire and the blue, acrid smoke rises from the crackling heap; from time to time he pokes the heap with a stick to turn the nuts, or adds another handful of dry leaf.

The fire is then allowed to die down and you sit in a circle around the smouldering heap. Regretfully your host remarks how

much nicer the nut would taste if only he had jaggery to offer with it—it is then that one of the groundnut-eaters produces a large lump of jaggery from his clothes with no trace of embarrassment. The charred pods are raked out with a stick, split and the nuts eaten while they are still almost too hot to handle or eat. There is no affectation of casualness any more, no longer any small talk. You just fall to and gorge yourself.

When it is all over you do not thank your host formally, for it is not such things but a sincere compliment to his crop that he will appreciate most. You tell him ruefully, how you had clean forgotten your digestive limitations in your zest for such truly fine groundnut, and add that you will have to think up some good excuse on the way home to explain to the wife your marked "no-enthusiasm" for dinner—for some reason (which is beyond me) I have found this last remark never fails to amuse a groundnut farmer. You take leave of your host after praising his crop again, and walk away, ostensibly homeward bound and thinking up excuses. However, you make no direct tracks homewards. One of your companions still has a lump of jaggery with him and there is plenty of daylight still; a mile away there is another field where the groundnut crop looked exceedingly promising, the last time you passed that way. You walk purposefully towards it.

SERPENTOLOGY

THERE are other breeds of venomous serpents besides the cobra, some with looks more arresting or venom more potent. The thick, squat-headed Russell's viper, blotched with heavy, black rings, has always struck me as a more formidable-looking snake—one look at it, and you know at once that it is virulent, just as you know by looking at them that some people are cantankerous—and though normally sluggish it can move like lightning when it wants to. The saw-scaled viper is smaller and less vivid, but not less venomous. And the modest, deadly Southern krait is more at home in human dwellings than the cobra and much more poisonous. But it is the cobra that has captured human imagination and compelled worship, from time immemorial.

Motive Of Fear

Psychology, however Freudian, may not tell why this snake should have been preferred above all others for worship, but I think I can. Of course the motive of fear is there, and the deeply, dimly-felt urge to placate that which is feared; possibly, there is psychological significance in snake-worship being connected with the concept of fertility. But all this does not explain the choice of the cobra. The belligerent territorial feelings of this snake, its intelligence and readiness to live at peace with humanity are the bases, I think, of the real explanation.

Cobras get attached to their grounds and will challenge intruders—and their hissing, spread-hooded challenge can be impressive! When they have long had the run of a disused house they will dispute the right of humans to occupy it again. I have been assured that if treated with firm kindness they will retreat to a far corner of the compound and give up their claim to the house—that the right thing to do, in the circus, is to offer them milk, and burn camphor in their presence (burning camphor does seem to discourage them considerably)—but on the one occasion I had to reclaim a cobra-haunted house I slew my co-tenants, out of fear.

Temple Guardian

In a celebrated temple at Kerala where the worshippers enter barefooted (as in all temples) the ground literally crawls with cobras, but I believe no one has been bitten so far. I can attest, from personal knowledge, to a much less impressive instance of the willingness of these useful snakes to live and let live. For years I knew a Siva temple beside a main road, which had its resident cobra. I have sometimes seen the snake on the roadside, a few yards away, and have slowed my steps to admire its handsome repose; many others have seen and admired it likewise. One felt no fear at all then, in spite of its splendid proportions and proximity; it was only the temple cobra, it belonged there and had been there for years without doing anyone harm; I have entered the temple when its guardian lay close by the pathway. At times it moved away and at times it was apathetic to the humans on the road. In September 1953 I revisited this temple and learned, to my sincere regret, that the snake was no longer to be seen, having been

killed by some natural enemy, presumably.

In many parts of rural India where snakes are common, snake-worship is equally common and one can see many wayside shrines. These may be quite elementary, a slab of stone bearing the incised figure of a cobra stuck in the ground beneath a tree, or may be a stone palisade around a peepul featuring carved snakes. However, I have seen serpentine figures of considerable finish and beauty at such wayside shrines, intertwined snakes and many-headed cobras carved with much skill, and sometimes, instead of cobras, superbly rhythmic figures of Nagas and Naginis—perhaps these belonged, originally, to temple ruins near-by, famous for their classical richness.

It is amazing how quickly and unquestioningly these images are accepted in the countryside. Once I had a very fine Nagini removed from her obscure hiding place and publicly installed, along with a few "snake stones," in the dreary compound of a court house, of which I was the presiding authority. I was surprised and delighted to find my court popular within the week, its compound meticulously maintained by all visitors including the handful of litigants who had business with me, and my "Honour" infinitely secondary in presiding authority.

Naga-Folk

These fascinating snake-people, semi-human and subterranean, inspire many folk legends, tales and mythological dramas in the South—I dare say, even in the North. Sometimes, in these stories, they are cobras which can assume human form at will and sometimes they are semi-serpentine Naga-folk; often they are

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The figure that lent grace and humanity even to my court.

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COUNTRY, NOTEBOOK

(Continued from Page I.)

presented sympathetically, not at all as dreadful figures—in fact, I know authentic folk-tales where it is the wholly human characters that betray the trusting serpents. It is a feature of these legendary snake-people that the very mention of the word "Garuda" terrifies them. The "Garuda" is the "vahana" of Vishnu and a traditional killer of snakes; the name is specifically used in Tamil to denote the Brahminy Kite (which occasionally does kill small snakes, mainly water snakes) but no doubt it also connotes a number of powerful eagles and hawk-eagles which can and do kill large serpents. As a tail-piece to this note I may mention a popular saying based on this traditional snake dread of the "Garuda"—my rendering is from a Sanskrit stanza, but the saying in a compressed, pithy form is common to many Indian tongues:

Do not associate with the lowly:

If you must, with the mighty make friends:

For the great cobra, having God's protection,

Enquired fondly about the Garuda's health.

M. KRISHNAN'S "COUNTRY NOTEBOOK"

FORTY DAYS S. I.

At midnight on June 26 last I was awoken by the angry terrified voice of a parakeet. I had just dropped off to sleep, but knew at once that it was a parakeet screaming—a few seconds later I heard the scream again, then, every few seconds, it was repeated. I knew from the sound where the bird was, on top of a clump of coconuts in my neighbour's compound, some 25 yards away. It was too dark to make out anything and my run-down flashlight was unable to shed much light on the situation, but I suspected the bird was being attacked and that was why it screamed. I heard no sign of its attacker—as I said, it was too dark to see what was going on, especially what was going on behind the screen of the great coconut leaves. The screams ceased and I returned to bed. Presently they broke out again, apparently from ground level this time: I heard the flap of wings coming towards me, then there was silence once more. With the aid of the flashlight's glimmer I located the parakeet in my compound. It was lying on its side on the ground, bleeding profusely. When I picked it up, it lay inert in my hand, too exhausted to protest.

It was an adult male, as shown by its black-and-red collar, and it had no tail feathers except for two freshly sprouting pins—clearly the attack on it had nothing to do with its taillessness. There was a deep wound on its left side (the kind of wound described as a "stab injury" in medico-legal books) and it was also bleeding from injuries to the left wing and the crown of its round head. I put it into a roomy cardboard box where it would be safe from further assaults till morning—if it lived that long.

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I had a glimpse of the attacker as I conducted the rescue. A single crow came from the foot of the coconuts, then a crow flapped up and showed in darker silhouette against the gloomy night sky momentarily before disappearing.

To my surprise, the parakeet recovered. For the first few days it could hardly stand on the sawdust flooring of its cardboard box. It leant against a corner in a comatose depression, and there seemed little cause for hope. It had to be fed with an ink-filler or a teaspoon every few hours—it was amazing how quickly it grasped the idea that the spoon meant nourishment. Every time I picked it up (a thing I had to do with the utmost care because of its injuries) it would bite my fingers till I had it flat on its back in my left palm, then it would stretch out eagerly towards the spoon, beak open, neck long and thin with extension.

I fed it glucose-and-water, milk and tomato juice for the first few days; it would not or could not take even well-mashed semi-

solid food, probably because one side of the neck was also injured. So quickly did it recoup that on July 2 I had a packing case converted into a large cage with an assortment of perches, and my bird was able to clamber about and perch.

It lost its two tail pins soon afterwards—birds in an enfeebled condition often shed growing rectrices. It grew wilder with each passing day, and noticeably stronger, and no longer required to be fed by hand. On July 4 it escaped, when the lower door of the cage was opened for cleaning the floor, but obviously it could not use its wings yet. It flapped along, a yard above ground, and came to earth within 20 yards; as I was about to recapture it it flew away again, crossed the road and landed in the miry ditch.

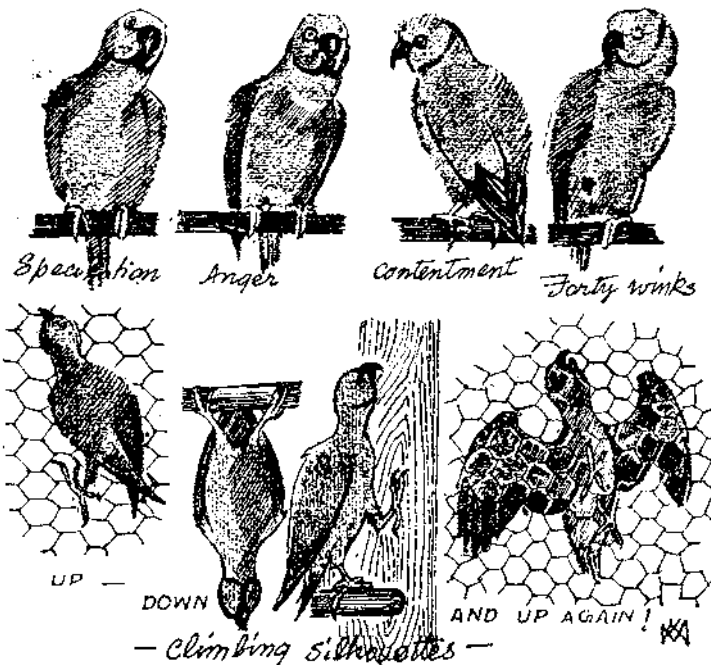
I feared it would soon meet its end if allowed liberty while still so weak of wing, and so ran after it, plunged into the ditch and grabbed it before it could essay flight again. A highly refined-looking gentleman happened to be passing that way, and he watched me as he walked. He said nothing, but his eye spoke his contempt for hulking, grown-up bullies who pounce upon poor little birds.

★

I released my bird, after inspecting it to make sure that it was fit, on August 6. I had to wait a couple of days for bright weather and during this wait abandoned my original intention of ringing it, so that I would know it again if I met it, (i.e., a child who visited me to see my parakeet, and the servants) warned me that it was cruel to give the bird its liberty, for sensing the taint of its human confinement somehow other birds would mob and kill it. I was also advised to liberate it near a temple, if I insisted on being so cruel. That was sound advice, for a parakeet can find just the kind of natural retreats it would seek against attack in a temple dome.

I had a suspicion (I have it still) that my bird was an old and frowzy parakeet that I have sometimes seen on my neighbour's coconuts. So I released it in my backyard from which it could get to the coconuts if it wished to, and sure enough it made a bee line for the trees. It disappeared behind the leaves and though I watched for nearly two hours, I could get no further glimpse of it. Perhaps I will see it again.

During the 40 days it spent in my



prison I gained the impression, slowly, that it was a very old bird. It quite refused to make friends with humanity and was idiotically scared if anyone went near its cage, but it was indifferent to the cat—curiously enough, the feline was equally indifferent to the cage.

Parakeets fly swiftly, but they are essentially climbing birds. Since my bird had no tail, there were no feathers to obscure its legs as it clambered about and I was able to study its climbing technique closely.

★

Most birds have rigidly set feet, with three toes pointing forward and one behind, but a parakeet can reverse its third toe and most often its feet have the toes in opposed pairs, the better to grasp with. Moreover, its upper beak is not firmly joined to the skull as in other birds but is capable of a certain play—this gives that massive, curved, overhanging hook-bill a measure of delicacy and "feel" that is invaluable to a climber. A parakeet always goes beak foremost, whether climbing up or down.

It is said that when a parakeet goes to sleep perching on both feet it is a sign of poor health and that a bird in good health will perch on one foot. I can testify to the truth of this from observation. After the first two weeks (when it used both feet) my bird slept perched on one foot. I have the definite recollection that whenever I saw it asleep it was perched on its left foot, with the right foot drawn up, but I cannot say that it ~~up~~ used its right foot for

perching. Had this occurred to me yesterday, I could have verified my suspicions, but you know how it is with these things—this has occurred to me just now, five hours after releasing my bird!

"UNBORN TOMORROW AND DEAD YESTERDAY"

WHEN I was a young man of eleven, I went on a holiday to a place where there was a famous zoo. Almost every day I visited that zoo and often held lengthy discourses with its Superintendent, a grand old man whose taxonomy was shocking but whose love for his charges was unbounded. Occasionally he rewarded my constancy with some special favour—once, he even took me with him into an enclosure which held yearling lions with embarrassingly playful manners. But what I remember most vividly is the day when he conducted me to a private section of the gardens, where a keeper was walking a full-grown Hunting Leopard on a leash.

I was allowed to stroke the magnificent animal (which purred loudly when stroked!) and learned that its name was Lakshmi. When the Superintendent was called away on some business, I furtively stayed behind and persuaded the keeper to let me stroke his charge again, and even to offer it a treasured half-bar of chocolate. I asked him to make the offer, for I was afraid it might snap in its eagerness, but the proud creature just sniffed at the dainty and then turned away, whereupon the man promptly put it into his own mouth.

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Before I left the place to return to my home and school, I saw Lakshmi twice again. Some three or four years later, when I revisited that zoo, the Superintendent was still there and so were most of the inmates; when I asked after the Hunting Leopard he led me wordlessly upstairs to a large room, full of stuffed birds and beasts, and there was Lakshmi, on a pedestal, looking unutterably translated and graceless, for all the skill of an expert taxidermist.

That was the only time I ever saw a Hunting Leopard. I may not see one again. There are people who believe there are still a few specimens left in the country and hope that they will re-establish themselves—I share the belief but not the hope. There is good reason for believing that there may be a rare Hunting Leopard or two in India today, apart from the ones imported from Africa for sport. Mr. K. M. Kirkpatrick reports seeing a specimen on the road near Chandragiri on the night of March 28/29, 1952, while motoring—the circumstantial details of this sight-record leave little room for doubt. A few years ago a noble sportsman shot three undoubted Hunting Leopards from his car, as they stood on the roadside dazzled by the headlights—there was a photograph to vouch for the deed.

In Mukumpi, on the borders of Hyderabad, I heard reports of "sivungi" (the Kannada name for the beast) in 1951; the reports may have been exaggerated, but the people who claimed to have seen the beast knew the difference between it and a panther all right. The country there is well suited to Hunting Leopards, very flat with bushy, boulder-strewn hills here and there; there are blackbuck and chinkara there, besides hares and birds and such small fry;

moreover, it is known for a fact that there were Hunting Leopards here formerly. All this does not, however, warrant the hope that the vanished species will come back of its own accord.

What has led to the virtual extinction of the Hunting Leopard in India within the past 50 years or so? It was never a numerous beast but it was certainly not uncommon two or three generations ago. No doubt ignorant and bloodthirsty men hastened its end, for when a species is reduced in numbers to the biological minimum necessary for its existence, each specimen shot greatly lessens chances of survival. But it is a fact that the Hunting Leopard was not hunted with the same ruthless zest as other Indian fauna, and I believe the plough and the wheel, rather than the gun, were responsible for its exit.

The Hunting Leopard in India lived mainly on blackbuck and chinkara and other small beasts of the open. As everyone knows, it is highly specialized for running down fast-fleeing quarry, and is probably the fastest quadruped in the world



over the first few furlongs. When the open country that formed its hunting grounds was annexed by man, or so cut up as to drive away the animals living there, the Hunting Leopard was naturally affected. Its staple diet (antelopes and gazelle) was no longer available, except with extreme difficulty.

★

It is sound to say that the animals that die out most easily are the ones that are most specialized for a particular mode of feeding—woodpeckers, for instance, have paid heavily in America for their inability to change their feeding habits. During the past 50 years blackbuck and chinkara (especially the former) have been considerably diminished in numbers and large stretches of hill-girt open country, free from men, are no longer available.

I think the most worthwhile contribution towards wild life preservation that can be made is the setting up of sanctuaries for the fauna of the open country. We lack such sanctuaries utterly in India, though there are sanctuaries for forest-loving creatures. Naturally any scheme for rehabilitating the fauna of the plains will require plenty of space, and also much more efficient protection than what is now offered. But, if the choice is wisely made, it should be possible to build up a really good sanctuary with about 100 square miles. After all, the displacement of humanity and agriculture this will involve

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Country Notebook

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will not be unique, for many recent schemes meant to benefit humanity have involved similar displacement.

In the Deccan there are areas that have long held blackbuck, wolves, foxes, and the Great Indian Bustard—typical fauna of the open—and which still hold every one of these in much reduced numbers. There are usually a few hills outlying the flat stretches. If such an area could be freed from humanity and rendered really poacher-proof (not only on paper), there is little doubt that Nature would rapidly re-establish herself. There is every reason to think that Hunting Leopards, introduced into such an area after the herbivores have secured a firm footing, will thrive and provide that very necessary check on exuberance that the balance of nature requires.

PONDEROUS THOUGHTS

RECENTLY, I have been reading a number of Western naturalists and biologists on the origin of domestic animals. Some of them have stressed the evidence of palaeontology and anatomy, others genetics or behaviour, but their conclusions are remarkably similar—they prefer to indicate probabilities and expound theories, rather than commit themselves to irrevocable findings, on the origin of the domestic dog, the less domestic cat and the wholly tamed cattle; they are surer of the ancestral bones of horses, and many birds as well as the camel and the llama are definitely the descendants of particular wild species.

One other point on which they agree is that domestication was a long and selective process, wherein all animals that were amenable to human will were retained and the recalcitrant weeded out. There is much truth in this, but had these experts known Indian domestic animals well they might have been less ready to presume that countless generations must pass before any species is domesticated; this is certainly a presumption, for there is no fossil or living proof that the process was a long, long one.

★

Here, in India, we have long been used to catching and taming wild animals to serve or amuse humanity. At least one of our common domestic beasts, the placid and sentimental buffalo, is in no way different from its wild progenitor except in reduced size and will freely interbreed with the parent stock. The now virtually extinct Hunting Leopard was always caught wild and full-grown and trained for the peculiarly Indian sport of antelope hunting. Falconry was a much fancied sport all over the country till yesterday, and even now the common partridge is often caught young and taught to follow its keeper like a dog. I realize that these creatures, tamed for sport, are not domestic stock, but mention them to provide corroborative evidence of the Indian genius for taming wild things. My conclusive proof has far greater evidentiary weight—it is, in fact, nothing less than the Indian Elephant.

For thousands of years elephants have been caught wild and swiftly tamed to man's uses in our country, and the art is still practised. Ages before Alexander set foot in the North, elephants were used in war and peace in the South, and were considered quite essential to royal estate. The tamed elephant is surely a domestic beast, much more reliable than any recognized household pet except, perhaps, the dog and second to none of them in versatile utility.

★

I have never seen an elephant being caught, but have closely studied the next best thing, a cine-film of the capture of a magnificent tusker taken by a friend (the film, not the tusker). I have seen elephants captured only a fortnight previously (they were already tractable and knew their keepers) and all sorts and conditions of these beasts, from infants to venerable elders; I have even lived next door, literally next door, to an elephant for four months, and I must say I never had a more distinguished or considerate neighbour.

I have heard the theory that it is because the elephant is not really intelligent that it tames so readily. On few other topics has such absurd twaddle been written than on the question of elephantine intelligence. Men who were otherwise formidable ex-

perts on these great beasts, like Sanderson, have betrayed a certain lack of understanding in discussing this question. Gradually we are realizing that the apprehensions and perceptions of many animals are widely different from ours—it does not show much intelligence on our part to judge them by our standards.

I am afraid that at times my enthusiasm for modern scientific methods of determining animal intelligence is qualified; for one thing these tests rarely take note of the fact that in every species there are born fools. I will go further and say that even in regard to human intelligence, it seems likely that as our knowledge increases many of the methods now used for rating it will be discarded—but perhaps I say this from a sense of frustration, my own performances at examinations and I.Q. tests having been so uniformly third class.

However that might be, it is wholly wrong to argue that because the elephant, which can so easily defy man, never does so when it is tamed (except under uncontrollable excitement) it lacks intelligence—if that is the criterion, the Fishing Cat would be among the elite of the earth because it is among the most savage and untamable, and man himself (who has often suffered peaceful coexistence when rebellion was possible) would rate pretty low. The elephant is undoubtedly sagacious—in an elephantine way. That it is temperamental at times means nothing; possibly that is due to the lack of understanding of the humans who have trained it.

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All this is rather beside the point. Whatever the intelligence of the elephant, the fact remains that it is the most easily tamed wild beast on earth. In fact, so quickly does it tame that man has never tried to breed it to secure his stock. There is good evidence to show that the wild buffalo (which is also a massive and powerful beast) can be tamed in a few generations. Apparently certain wild beasts have peaceful temperaments and are quite willing to live with us, and even develop an affectionate attachment, once they comprehend that their needs will be provided and that no one intends them immediate harm. It is unlikely that they ponder and brood over the loss of dignity and freedom involved in being useful to others—that, again, is a peculiarly human thought.

M. Krishnan's Country Notebook**AN EXCEPTIONAL WARBLER**

THE warbler tribe is the most numerous anonymous of all birds. There are several hundreds of them, wren-warblers, willow-warblers, tree-warblers, fantail warblers and just warblers, all smallish birds, most of them quite tiny, and all more or less of a dull feather. They are inconspicuously grey, brownish or greenish, much given to playing hide and seek in bushes and no less given to warbling, or to feeble call-notes. It is not hard, once you have the hang of the family characters, to know a bird as a warbler when you see it. Further identification, however, is a matter for the warbler specialist, and even he likes to have the bird in one hand and the text-book in the other.

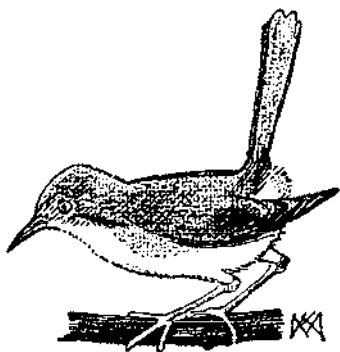
It is surprising, therefore, to find that one of the most familiar and easily-identified of our garden birds is a warbler. It is *Orthotomus sutorius*—if that fails to mystify you, I might as well use the common name and call it the tailor-bird. There are few gardens in India, however modest, that are not graced by the presence of a pair of tailor-birds.

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True there are other warblers that look like the tailor-birds; there is the Ashy Wren-Warbler, for instance, another small, slim, energetic bird with a cocked up tail and the habit of flitting airily about bushes. It is more grey or dark brown on top, in any plumage, than the olive-green tailor-bird, though both are of a size and shape and both have pale undersides, but it is not by their looks that you tell them apart, not even by the cock tailor-bird's tail pins, for these are shed after the breeding season. The wren-warbler makes a curious, quickly repeated snapping noise, faint but audible and unmistakable—if you hear a tailor-bird making this noise, put it down as the Ashy W-W.

Tailor-birds have many calls, among them a rapid "chick-chick-chick-chick-chick" (I think this an alarm call, or rather, an alert), a loud monosyllabic "Tweet" and a louder two-syllabled "Towhee." No other bird of that size has such a loud, bold voice. And if you watch a tailor-bird while it is calling, you will see a transverse black bar appear and disappear on either side of the neck with each call.

The beautifully-sewn nest is, perhaps, even better known than the bird. One would think that such a work of sartorial art is the true and unique hallmark of the



tailor-bird, but at times the Ashy W-W builds an almost identical nest, also slung within stitched leaves. However, if there are eggs in the nest you can tell the builder at once. The tailor-bird's eggs are speckled, and the wren-warbler's are a deep, shiny red.

The very first nest with young that I watched was a tailor-bird's, in a Hiptage bush just below the verandah of a house. Sometimes these birds build their nests close to human life, even in a potted plant on the verandah at times. So bold and confiding are they that they will continue to feed their tiny, wide-gaped young while you sit and watch the process from two yards away, provided you keep utterly still and don't stare too rudely. No other nesting bird is so easy to watch.

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Off and on, for the past two years, I have been watching a pair of tailor-birds that frequent my garden. They are there all day, and I think all night as well quite often, for I have often seen them roosting in a yellow oleander bush late in the evening. They seem to like my neglected and rank garden, and to feel very much at home, but though there is plenty of insect life here to feed them and their broods they have never nested within my compound walls. Where large-leaved creepers and bushes are available, tailor-birds prefer to nest in them, and there are few such plants in my garden. I have taken great pains (what a lie!—it calls for none, to allow the plants here to run wild and fight it out among themselves, and am reluctant to interfere with the perfectly natural growth of many years, but I think that one of these days, when I can find a lusty seedling and the energy, I will dig a big pit by my kitchen wall, fill it with something less inhibiting than the clay soil of my compound, and plant a Hiptage seedling there for the tailor-birds to nest in.

M. KRISHNAN'S "COUNTRY NOTEBOOK"

HOUNDS OF INDIA

THERE are only two types of dogs in India, if you leave out Himalayan breeds. Naturally, you must also leave out every sort of city and suburban mongrel, for though some of these are admirable dogs and companions they are not truly native, having mixed imported blood in them. I have observed the dogs of the countryside over years and in many places, from Hardwar and Banaras to the southern tip of the peninsula—in this vast area there are only two indigenous canine types. One is the native herd dog, disparagingly called 'pariah dog' and 'pi-dog', a splendid animal whose sensible, even build and utter trustworthiness have not been exploited at all. The other is 'the hound type'.

Both types have certain things in common. Both are more or less smooth-coated, both have squarish builds and both are, in their purest strains, whole-coloured. These points may be briefly considered here, for our dogs have been maligned by experts, in English dog-books.

IN RURAL AREAS

The herd dogs have thicker and longer coats than the hounds and their tails may be feathered, but I have not seen a shaggy specimen anywhere. Incidentally, the pariah can be found in any degree of purity only in remote rural areas, well away from District H.Q.s and cantonments. Typically it is somewhat like an old-fashioned, smooth-coated chow, but not so stocky and short-coupled and not so straight-hocked. Forsyth speaks of a Banjara Hound in his 'Highlands of Central India' (1872); he says it was "about 28 inches high, generally black mottled with grey or blue, with a rough but silky coat" and com-

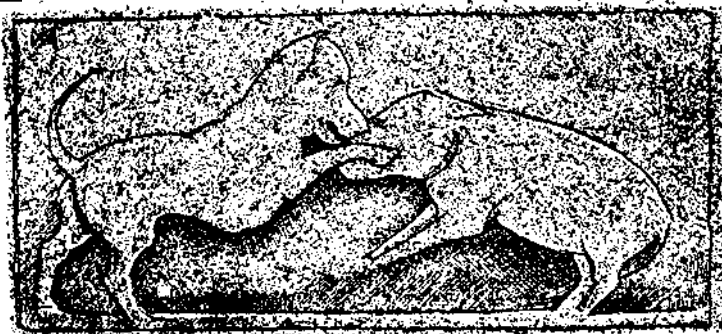
ments on its resemblance to the Persian Greyhound (Saluki). Undoubtedly Forsyth, who experimented with these hounds, knew them well, but the breed has not been mentioned by other writers and it seems probable it was an exotic strain brought in by the wandering Banjaras. Indian hounds are smooth-coated. They are not 'long dogs' really, having the build of a Great Dane and not that of the greyhound—in fact some of them look very like small editions of the Great Dane, but have more houndy heads.

AUTHENTIC

While some true-bred pariah dogs may be pied (black or brindle, with a little white on face, neck and chest, and white stockings), the most authentic specimens are whole-coloured, usually some brownish colour from buff to deep shades. All our hounds are unicoloured, if of ancient blood. However, a darker back stripe is usual, and in breeds like the Sippiparai dark spots on the skin may show through the short, white hair bluishly, as in a Dalmatian diligently rubbed with a chalk-block.

There are not many breeds of Indian hounds. The Rampur of the North and the Sippiparai, Kombai and Rajapalayam hound of the South are the best known—the last is the breed termed Poligar in English. There is also a Mahratta Hound mentioned by 'dogologists'—the only hound I have seen in Maharashtra is the Mudhol Hound, and the only representative of this breed I saw had the wasp-waist and snipy muzzle of a whippet and was pied—perhaps it was not pure-bred, but it was no Indian hound.

It is easy to tell the hound type apart from the pariah, though



Kali and the boar (facsimile).

Professor Studer has said that all greyhound types are developed from the pariah. The skin and coat, the ear-nose-end-throat, and the tail are typically different. Our hounds have a pliant skin that forms a reticulate pattern on the side when the dog bends its body, and small dewlaps on the throat—at times it forms into thoughtful creases over the forehead. The coat is short, fine and hard. The ears are never pricked as in the pariah—the Rampur and Poligar have drop-ears and the others may have a tendency to button-ears. The nose is Roman, and in spite of a stop the dogs are down-faced, as a rule. The tail is rarely raised above the level of the back, and tapers noticeably after the basal third of its length—gay and tightly curled tails are characteristic of the pariah. It is hard to say which of the two types is more ancient, and both may have been evolved from the same stock. It is significant that in crosses the hound characteristics predominate.

FOR THE HUNT

Our hounds were evolved not for the chase of the hare or the gazelle as the Western and Persian greyhounds were, but for hunting deer and boar. In the Government Museum at Bangalore there is a hero-stone to the memory of a boar-hound named Kali that lived a thousand years ago. The placard reads: "Shila Sasana of Krishna III and Butuga II. This is a monumental record which narrates a fight and the gift of the favourite hound of Butuga II named 'Kali' to his follower. The hound was pitted against a boar and both were killed. 950 A.D." Now it takes a dog of the largest size to kill even a subadult boar in single combat, though it fights so hard it dies in the process. The hound in the hero-stone (copied in the illustration) is clearly larger than the boar—and a half-grown boar scales some 150 lbs. I point this out only to say that this means nothing at all.

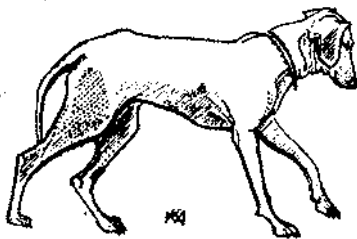
In such monuments to deeds, the figure commemorated is shown heroic-sized—so, in a relief depicting a man slaying a tiger, the

man is shown considerably larger than the tiger! However, there is no need to suspect the eye for form of the sculptor who carved Kali—his boar is proof of his mastery of animal figures. The boar-hound was obviously heavily built and had a domed head and deep jaws. The Poligar, in spite of its size (it is very hard to get a pure-bred dog 24 inches at the shoulder, though the dogs are basic larger than the bitches), is powerfully built and has some basic affinities to the hounds of old Indian stone. To suggest that the Poligar is a recently manufactured breed to which the English Greyhound contributed (as has been suggested in print and by experts) is ridiculous, to say the least.

RAMPUR HOUNDS

The Rampur is the largest of our hounds. Its ancestry has been questioned—it is said that the Afghan Hound or the Saluki (not the smooth-coated and much more Rampur-like Slughli) was used in the making of this smooth-coated breed, but I see no reason for taking the allegation seriously. However, it is not everyone that likes the colouring and sour-faced look of the breed. Of the Southern breeds, the lean, fierce Kombai, deep red with a black mask and a black line down the back is virtually extinct. The Sippiparai has, probably, English Greyhound blood in its veins—if it has, it has inherited not the best qualities of that noble breed. The Poligar is in a sad way. There are few pure-bred specimens outside its home, Rajapalayam in the far South. The purest blood is much inbred, and an outcross may do the breed good in the hands of a skilful and conscientious breeder. The great difficulty is to get a good specimen at all—one must go to its native haunts and choose a puppy after inspecting the parents to give oneself a reasonable chance of securing a real Poligar, and this is complicated by the fact that the puppies are never offered for money, only as a sign of esteem. However, I can say from personal experience of the breed that anyone who lives in the country (it needs plenty of space, miles and miles of it) cannot own a handsomer, truer or better dog than a Poligar.

I must add that I cannot help any reader in acquiring a puppy, because I have always been asked if I can so help, whenever I have written about this breed, and to my deep regret I am unable to be useful, much as I would like to contribute to the popularizing of a dying and most worthy and wholly Indian breed. Unless you can get an introduction to someone who owns these dogs in a reasonably pure strain, you cannot get a puppy. I lack such friends.



Poligar Hound and pig-hunting Pariah.