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 Shahin) 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 scatterbrained 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

Terror from the

Skies

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.

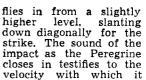
Rarely does the falcon miss zooms up to the clouds, or climbs on quick-beating wings, and resumes the chase. and resumes the chase. I

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



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 shortwinged 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. Strongflying 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 housecrows 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 vernaturge still lingers here; wet though it is.

*

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 restless-

M. KRISHNAN

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 kekarees 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.

本

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.



Country Notelines.

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 Jaiarpet 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, pithlike 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 citrous fruit to be eaten. I had never been able to eat any citrous 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.

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 cheekpouch 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!

*

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 dogmonkeys living as largely by plundering their tellows 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.

in the jungles.

There is no recognised leader among them, as there is in a feral troop, and I nave 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.

BULBULS³

NEST

A N 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

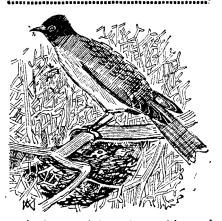
Bulbuls are not specially talented architects. Some of them nest in treetops at safe elevations, and some are careless even with regard to height. The Red-vented Bulbul is content with any site it can find, and usually nests in bushes and hedges, not far from the ground. The nest in my Kalli hedge is 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.

5/2

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. Midmonsoon 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

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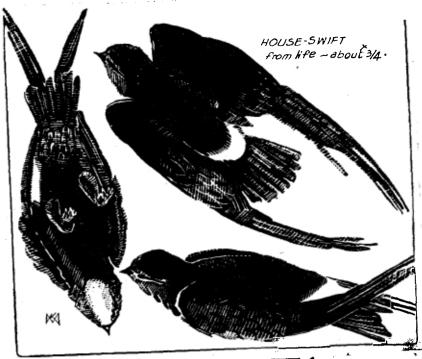


revised my opinion when, with each visit to the nest, I could see the young growing apace and gaining in size. They seemed to have a native hardiness that I had not allowed for, and the nest did give them a measure of insulation. Their bodies were now covered with dark, incipient plumage, though their 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 fledgelings with 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 fledgelings 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.



Marathon Flyers

A LL 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.

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

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.

seemed to go to sieep. ...

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.

*

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 lests. I think it reasonable to suppose that it is a social instinct that I traws them together at the end of the day, and since they cannot sit in company, they go whirling up in a competic, to wittering group. Even otherwise, why should not society have an exhibate iting effect and induce strange antics allong the lower orders of creation as well?

King of the hedgerows

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.

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He came nearer and nearer my tree, and finally dived into an anthill 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

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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, grass-hoppers. 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.

*

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,



Country Notebook

Dartridge

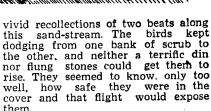
THe millet stands nine feet in the He millet stands nine feet in the fields, and the heads are ripening in the sun. The scrub has a fresh newly-washed look after last week's downpours, the skies are clear and the air crisp. Each morning the brave, resounding calls of partridges answer one another in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

Another month, and the crop will be

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 every stubble. Water a minor 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. finition.

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 fy 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 muchbranched 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 scrub is the Grey lking along in the skulking Partridge, Partiage, 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.

As everyone knows, partridges take reluctantly to wing threatens, preferring legs and the refuge when danger their sturdy legs and the refuge of the bushcovered 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 still
leaved Dodonea viscosa, stragy
grasses, and Lantana in its ranker of the thick, spin, leaved Dodonea viscosa, leaved Dodonea viscosa, grasses, and Lantana in its ranker featuring the growth. This partridges.

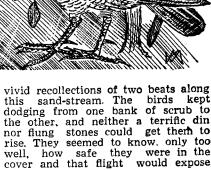


them.

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, grassbound boundaries between the fields, when I saw a pair of partridges about fifty vards 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,

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 unmaply impulse to 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 vards, and began to scratch in the earth. After a while I recommenced the chase, and 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 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 a transation. 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 frave moved them to a canter!

M. Krishnan



Country Notebook

Cousins

HAVE just a seacoast city still, moisture-e. Here, too, the country from a from a heavy, st laden atmosphere. blocked, not horizons are

archisquare tecture but a ring of hills, and here, too, it is close and it is close humid w with unfallen rain. But I sense no longer that longer
pent-up feeling in the air
that oppressed
me in the city.
I think it is
sight of

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. 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.

are they insolently unmindful—they keep their distance. And they find their food.
hey 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 but ... mode of a life feeding. provide Nests and young life them with substitutes household **r**efus**e** the 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 June, we saw a mass le Crows in the middle Jungle

speed. Motoring to Oducamula 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.

Iowever, these birds can make a pleasing picture also. I know a deep gorge over which the homegoing 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.

rint.
ral 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

aybe 20 or 30 miles away. Flighting home they keep low and very much together. There is safety in their close formation, and efficiency and economy of movement in the of movement in they paddle on broad.
They keep way past

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 auide them. 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 treetop 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

DECEMBER brings in the harvest, and evening skies no lo dramatic with massed clouds, limpidly beautiful—and the longer s, but limpidly beautiful—and the frogs again. Of course the frogs were there long before the month, but they were tess 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 dich 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 o'clock, and goes on Every frog has its peo pitch and keeps

a time of its own -trying to fol-low each insisttent voice in the pandemonium of quick trebles, persistent baritones, deep quavers, and guttural croaks, you feel confused and almost dizzu.

Each tireless reveller seems to keep repeating a

rticular ase. You can almost make out phrase. 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 models and ditches

it is the voice of love.

And it is the voice of a spent love, for the roadside puddles and ditches are sq ming 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

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 against 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 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. hat may seem a premature and

hat may seem a premature and hasty surmise, considering that long 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

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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 frogs and todas 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 of-ten vividly coloured, skins, and sensuous, bulging thighs: they revel in the water and leap over the land. The male from are much given to serenading.

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

skins, and sober skins, often warty. Their bearing is quiet and portly, sober and they go about their loves with reticence. The difference between them and the frogs is the difference between a gentleman and a bounder. However, there are exceptions on both sides, and it is not always 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

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 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

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 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 oack. He is surprised that an animal, reputed to be so formidable with snakes, should have succumbed so tamely. I do not think the includent proves the 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. Suppring et men because dogs, snapping at men, are apt bite half-heartedly as a rule. More-over, I think every allowance should be made for the fact that that mon-goose was sub-adult. As with all goose was sub-adult. As with all hairy creatures, a half-grown monlooks three-quarters-grown cause 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 horrorder at Fort

pet, and juvenile) in the barracks at Fort St. George, Madras, with more dramatic dramatic s. The consequences. owner of the mon-goose 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 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. Two explanations occur to me, but ally.

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 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 in some beasts and birds as swoon 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

[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.

ven 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.



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 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-central so almost infectious in its élan, as the play of these moonstruck beasts; and I sat on, still and huddled.

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 loy, unfamiliar to me.

forming 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.

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.

tut, 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. But.

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! on a wild-goose chase—but are based, possibly, on an 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,

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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 steams 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, superlativelynamed scandent 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, sweetscented 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 Capparis, 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.