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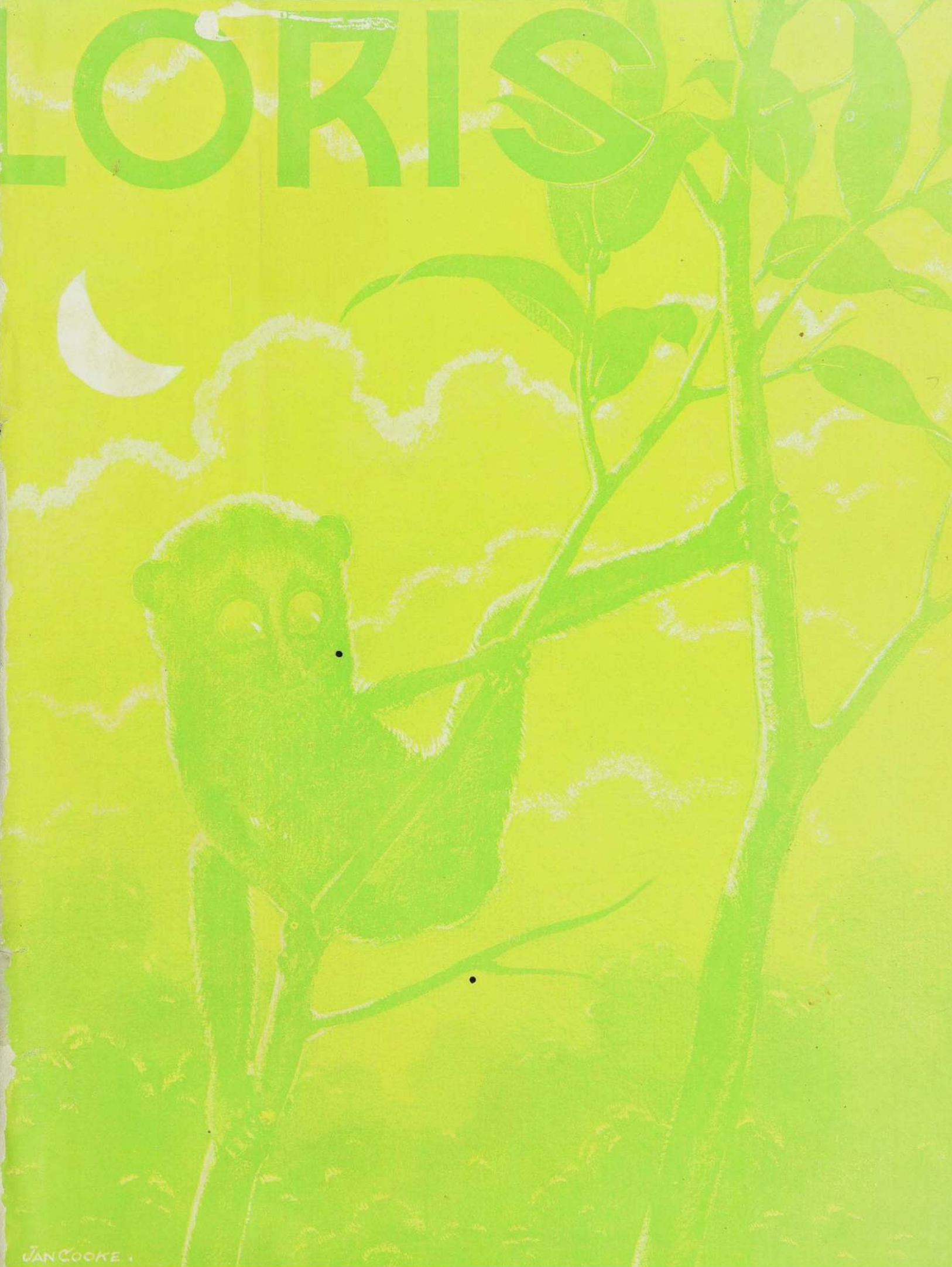
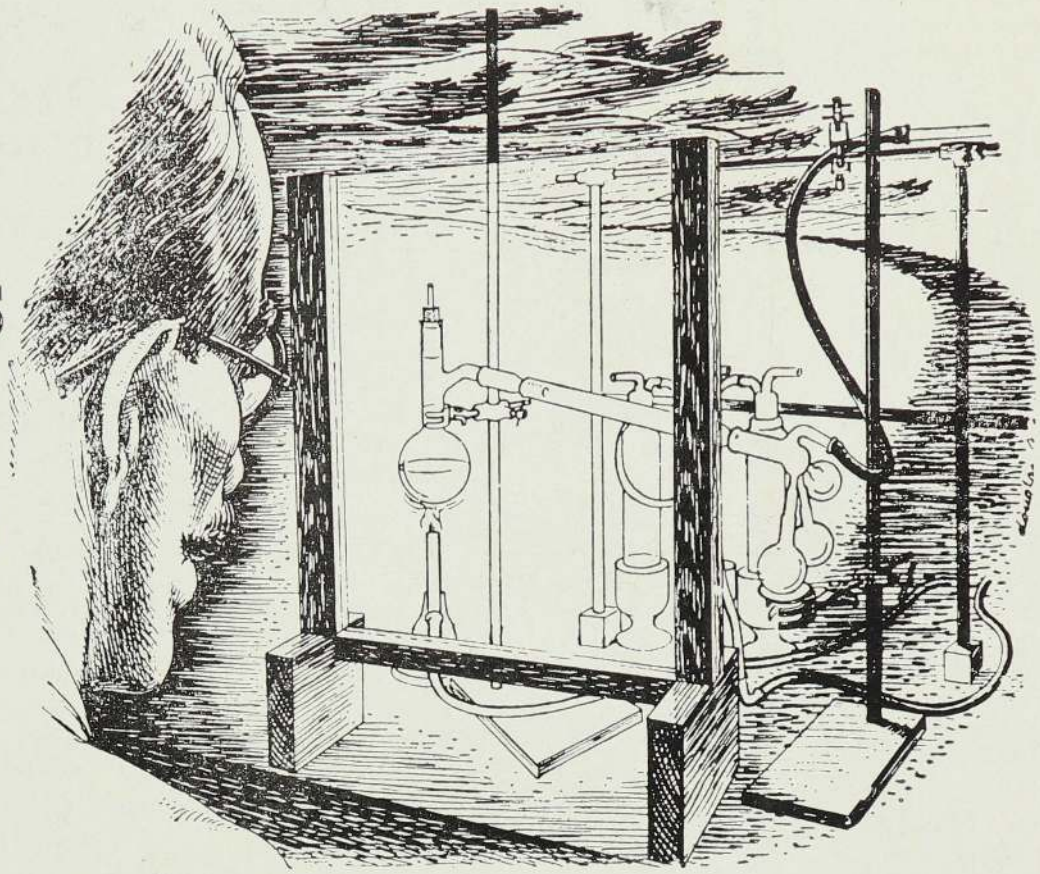


A JOURNAL OF CEYLON WILD LIFE Vol. VII No. 6.

Horizons of Scientist



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Wild Life Protection Society of Ceylon

FOUNDED 1894

The objects for which the Society was formed were—

"To prevent the elimination of game in Ceylon by destruction of animals for trading purposes, to further the interests of legitimate sport, and to conserve one of the food supplies of the inhabitants."

At the Annual General Meeting held on 30th November, 1945, the Rules were revised, and the objects of the Society now are—

(1) To prevent the progressive destruction of species of wild animals and wherever possible to preserve wild life intact in natural conditions in Ceylon.

(2) To continue the tradition of the Society in furthering the interests of legitimate Sport.

(3) To promote an interest in the life histories of all forms of animal life and to co-operate with other Societies and Institutions which have similar aims and objects.

The Subscription to the Society is Rs. 15 annually, payable on the 1st October.

All members, whose subscriptions are not in arrears, receive a copy of each number of the Society's Magazine, "LORIS," which is issued bi-annually in June and December. Further copies may be had at Rs. 4-50 each, at which price copies are also available to the general public.

Persons wishing to join the Society, or desirous of obtaining further particulars, should apply to the Hony. Secretary, Mr. C. E. Norris, Pingarawa Estate, Namunukula.

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A JOURNAL OF CEYLON WILD LIFE

Published by the Wild Life Protection Society of Ceylon.

Literary contributions should be sent to the Editor, MR. R. L. SPITTEL, WYCHERLEY, BULLERS ROAD, COLOMBO.

Articles are invited not only from members of the Society but also from the general public interested in Wild Life.

All manuscripts should be typed with double spacing and on one side of the paper only.

Matters relating to *Membership* and *Subscriptions* should be addressed to MR. C. E. NORRIS, PINGARAWA ESTATE, NAMUNUKULA.

Advertisement Rates.

Rs. 75 full page. Rs. 40 half page. Rs. 25 quarter page.

All Enquiries regarding Advertising should be made to Hony. Treasurer, Wild Life Protection Society, J. M. Hodgson, Cobo Estate, Badulla.

Wild Life Protection in Ceylon

By C. E. NORRIS

THE Ceylon Wild Life Protection Society came into being on 23rd May, 1894, and was known as the "Ceylon Game Protection Society." It was formed for the purpose of looking after the welfare of the Wild Life of Ceylon, and for preventing the elimination of Game in Ceylon by destruction of animals for trading purposes; to further the interests of legitimate sport and to conserve one of the food supplies of the inhabitants.

In 1889, Colonel Clarke, R.A., who held the post of Conservator of Forests, did all in his power to bring to the notice of Government the disastrous results of commercial exploitation of wild life. A pitiful picture was painted in his report of the slaughter being carried out on behalf of the Coast Moors, who were supplying villagers with powder and shot for the destruction of those animals who furnished the best hides for export. As a result of such persistent agitation, the government passed two Ordinances:—No. 10 of 1891 entitled, "An Ordinance to prevent the wanton destruction of Elephants, Buaffaloes and other Game" and No. 11 of 1891 entitled, "An Ordinance to re-adjust the Customs duties leviable on firearms and to impose an Export Duty on certain Hides and Horns." The passing of these Ordinances excited public interest and created two rival camps. Those against, who were adversely affected, opened a campaign against the restrictions, whilst those in favour eventually met in the Bristol Hotel on that day in May, 1894, and formed our Society. In 1894, the Government realised the imposed restrictions were not putting a stop to commercial exploitation for trade purposes; so, in October of that year prohibited the export of sambhur and deer hides for a period of five years. In 1896, the Secretary to the Governor argued the five-year embargo on hides was not having the desired effect, as exporters, in anticipation of the embargo being lifted in 1899 were hoarding hides. This brought about a proclamation which prohibited, for an indefinite period, the export of deer hides for trade purposes.

The traders were not going to be beaten as easily as this, as they once again started commercial exploitation in a slightly different form by transferring their attention to dried meat and firearms. The dried meat business was entirely dependent on the number of deer slaughtered over water-holes in the dry weather. An experiment was tried by employing paid watchers, this ended in absolute failure as the watchers were subsidised by the traders! It was then decided to use watchers, whose services could usefully be employed within selected and well defined localities. Thus in 1899, the Yala Game Sanctuary, as it was then known, came into existence. A track of

land comprising some 96,000 acres in extent, lying between the Menikganga and Kumbukkan Oya was proclaimed, and all shooting and killing in this area was banned. This Sanctuary still exists as the Yala Strict Natural Reserve. The Game Protection Society decided to abandon the idea of employing watchers on extensive protection; so concentrated their staff in five selected localities, three of which, fortunately, abutted on Yala. Meanwhile the traders had not been idle, realising the Government had relaxed their watchfulness, they employed gangs of professional hunters, who toured the country, monopolised water-holes, poached village reserves and, to the disgust of the villagers, destroyed and removed potential food supplies. Again the Government was forced to step in and provide legislation to prohibit commercial exploitation, which was detrimental to the country, as a whole.

Throughout the early years of the life of our Society, an agitation to have the export of deer horns prohibited was carried on. It was not until 1902 that the pleadings and warnings of the Society were heeded and legislation to prohibit the export of horns was enacted. During the two years before this enactment was made it was computed the total export of horns represented the product of 69,328 stags, to this probably twice as many hinds were killed for their flesh and hides. In 1904, Government agreed to proclaim an additional Sanctuary, so in that year Wilpattu was formed. This was not so accessible and did not carry the head of game to be found in Yala, but the present National Park proves this to have been a wise choice.

Ceylon owes much to the late Harry Storey, for his untiring work to preserve the larger forms of our wild life. He computed that during each year from 1900 to 1908 (inclusive) the slaughter of spotted deer was approximately 65,888 and of sambhur 8,930. So in eight years 527,104 spotted deer and 71,440 sambhur were slaughtered. In 1904 alone, 6½ cwts. of bird skins were exported from Ceylon together with 15 cwts. of the nests of the Edible-nest Swiftlet. The Governor, Sir Henry McCallum, having been convinced of this appalling destruction enacted in 1908 the long overdue Dried Meat Ordinance and the Game Protection Ordinance in 1909.

During the first World War, guns and cartridges were scarce and expensive, so wild life of all descriptions had increased and become quite plentiful in most jungle districts, but as soon as the world began to settle down again after the armistice a change for the worse started to take place with alarming rapidity. Cheap guns and ammunition, electric torches, spot lights and swifter transport began to flood the country. Communications began to improve, more land was opened up for cultivation with the human population increasing at an alarming rate.

Development must, of course, continue and wild life inevitably recede before it. Government continued the experiment of intensive protection in Yala and Wilpattu, whilst the Society continued to pay watchers for patrolling selected localities, but beyond this very little effort was made to enforce the game laws or bring offenders to book. Night shooting and shooting from cars became a popular pastime in consequence of which hardly any of the larger forms of wild life are to be seen along the roads in the present day.

Agitation on the part of the Society grew stronger, and fortunately, we found a sympathetic friend in the Hon. Mr. D. S. Senanayake, who was quick to realise the value of the fauna and flora to his country. He appointed a Committee to enquire into all matters connected with proper conservation of wild life so that as an outcome of this work the present Fauna and Flora Protection Ordinance became law in March, 1938. This Ordinance provided for the proclamation of certain areas as Strict Natural Reserves, National Parks, Intermediate Zones and Sanctuaries. Also it allowed for Open and Close Seasons for prescribed species

of animals and birds. The Society handed over the areas which it was patrolling to Government as most of these areas were either declared Intermediate Zones or Sanctuaries to be placed under the administrative control of the Forestry Department.

The Society continued to agitate for the appointment of a full-time Warden until, at last, Government acceded to this request by forming the Wild Life Department and appointing Mr. C. W. Nicholas to be in charge in 1948. This was certainly a great step forward and has proved its worth by the increased popularity of the National Parks with the public. Difficulty is still experienced in patrolling the areas outside the National Parks and Intermediate Zones through the want of an adequate staff.

However bitter the pill may be, it must be realised the areas outside Reserves will continue to diminish, this is something which cannot be stopped as more and more land is required to feed the ever-increasing human population. It is, therefore, of the utmost importance the reserved areas are maintained and are not allowed to be encroached upon for cultivation schemes. The work of the Society consists, very largely in fostering the interest of the general public in wild life conservation matters and inducing Government to grant further protection. The Society no longer undertakes any active protection work on its own account as all the watchers which were employed have been taken over by Government.

It is not the aim of the Society to interfere, in any way, with legitimate sport carried out by any member of the public; in fact, we watch the interests of legitimate sportsmen and those members of the public who wish to study or photograph wild life.

Conditions change with time and circumstances, so that in the present day the Fauna and Flora Protection Ordinance of 1938 requires remodelling and amending. The Society has made representations for this to be considered and has put up proposals outlining the Amendments necessary.

The position of the elephant is one causing considerable anxiety, as the total population is decreasing at an alarming rate. Shortly it will be solely confined to the National Parks and reserved areas and for this reason alone, it is most desirable the Parks which are strongholds of the elephant must be enlarged to give it sufficient space to live without being continually persecuted.

It is up to all Members of the Society to increase the interest of the general public in Wild Life Conservation and to condemn illegitimate methods of shooting, capturing and killing of wild life.

In compiling this short history of the Society and wild life protection in Ceylon, I have drawn fully on the following two articles which appeared in *Loris*.

"*A Note on Fauna Protection in Ceylon*," by A. B. Lushington, Vol. 1, No. 1.

"*The Work and Aims of the Ceylon Game and Fauna Protection Society*" by W. W. A. Phillips, Vol. 1, No. 6.

RESERVES FOR RELIC FAUNA

THE protection of wild life is generally viewed by most people as concerning only the larger animals with possibly some consideration shown to birds. The smaller forms of wild life are often overlooked because they are seldom seen or do not rouse sufficient interest.

But from a scientific and zoological point of view these smaller forms are just as important and deserve equal consideration. Ceylon has an interesting relic fauna, distributed mainly in the central hill zone, which has received but scant recognition in respect of sanctuaries. Relic fauna is a remaining fragment of fauna of a bygone age, when the mountains of Ceylon formed part of a vast continent subsequently submerged, which is believed to have reached

from Madagascar on the one side to the Malay Peninsula on the other.

In several cases these fauna are distinct and have no closely allied forms on the Indian mainland. Among the mammals which inhabit the hill zone are two species of shrews superficially alike, which are the sole representatives in each case of different genera entirely peculiar to Ceylon. These are *Kelaart's long-clawed Shrews* and *Pearson's Shrew*. A *Spiny-rat* of the genus *Coelomy's* is confined only to the hill and wet zones of the Island. There are also two species of *Bats*, three more species of Shrews, and a *Flying Squirrel*, while in the wet zone of the West there is another species of Spiny-rat and a jungle Shrew. The *Bear Monkey* or Hill Wanderoo, of the genus *pithecus*, is confined to the hill zone of Ceylon. This form is a distinct race of the species that is also found in the Malabar tract in India.

In the hill zone, except for a small area around the Hakgalla peak, which has been declared a Strict Natural Reserve, the Peak Wilderness Sanctuary and a tiny sanctuary in Nuwara Eliya, nothing has been done to preserve this most important fauna. Unfortunately there are proposals afoot to make excisions into the *Hakgalla Strict Natural Reserve* for increased grazing grounds, which, if carried out, will diminish the reserved areas in the hill zone very appreciably. This reserve is an excellent reservation as it contains most of the endemic alpine and relic forms, both of the flora and of the fauna for which Ceylon is famed. If the proposed excisions are proceeded with, it is earnestly hoped an alternative area, equally well situated, will be given. The Peak-Wilderness Sanctuary situated around the world-famous mountain is an excellent choice as it contains many hill zone and wet zone forms of both birds and mammals.

It is, however, desirable that another sanctuary should be allocated in the wet zone around the low-lying country in the Galle district, to preserve the purely wet zone fauna, which does not ascend into the foothills of Adam's Peak. I would have thought an area in the *Sinharajah forest* could easily be found to fulfil this role.

C. E. NORRIS,
in *Morning Times*.

THE NEED FOR A HIGHLAND RESERVE

AS far back as September 14th, 1926, at a lecture delivered to the Ceylon Natural History Society, Mr. W. W. A. Phillips had this to say :—" I will, therefore, take this opportunity to warn you that, if you wish to save these most interesting members of our Ceylon fauna, the bear monkey or Up-Country wanderoo, a species found only in the hills,... Layard's Flying squirrel,...And as regards birds, of which there are a number of most interesting endemic forms to be found in these highland jungles and nowhere else, I do not doubt for a moment that the same thing is taking place, namely, that they are diminishing rapidly owing to restriction of range and lack of protection.

" For the benefit of your children and posterity in general, you must take action, and take it quickly ; and I would urge you, most strongly, to take steps to call the attention of the Government to the vital necessity for setting aside some large tract of virgin land in the Hills—*Horton Plains—as a permanent sanctuary of the indigenous fauna and flora of our highlands.*"

The above resolution was moved by Mr. Phillips, was seconded by Mr. C. T. Symons, which was supported by Mr. W. E. Wait and was passed unanimously. What about it Members ? Mr. Phillips, at the 62nd Annual Meeting of the Wild Life Protection Society held on 13th February, 1956, 30 years later made the same appeal. Let us once again approach the Government to appoint a Commission of Inquiry to settle this belated question of a Highland Reserve and I would suggest it be named the Phillips' National Park as fitting tribute to a great naturalist.

C. A. MAARTENSZ.

MASSACRE AT WILPATTU

(i)

WITH the opening up of land under the Maha Wilachchiya Development Scheme, states the Warden of the Department of Wild Life, destruction of wild life in the Wilpattu National Park area is inevitable. Furthermore, since the buffer between it and the cultivated and inhabited area is greatly reduced, the security of the National Park is threatened.

The irrigable area under the Maha Wilachchiya Tank extends over a part of the northern portion of the Wilpattu East Intermediate Zone and comes very close to the boundary of the Wilpattu National Park. The area west of this is mainly park country with intervening high forest and carries one of the largest wild life populations in Ceylon.

The population of elephants in the Wilpattu Park, according to the latest statistics collected by the Wild Life Department authorities, is about 80. Large resident herds are still a rarity. Small herds, however, confine themselves to the Moderagam Aru and Kala Oya, which constitute the northern and southern boundaries of the Park.

Three herds of elephants, totalling 36 animals, have been seen, 19 at Kanjuran Villu, nine at Kali Villu and eight at Borupanwila. Three more herds of elephants, numbering 20, have been seen at Pannikka Villu. The largest herd numbered 13 animals. Several young calves of different age groups and at least nine tuskers have also been seen in the park.

The prevailing drought has caused a slight drop in the sambhur population in the Park which now stands approximately at 400. Deer population in the Park is approximately 2,000 animals, seen mostly in the central villus.

During the drought, Kokkari Villu and Lunuwila are veritable death traps for many animals in the Park. The area between high and low water becomes transformed into a sticky morass of congealed mud.

Buffalo and sambhur, weakened through lack of food and water and travelling long distances, are drawn through the sticky mud to the little puddles of water left. The poor animals are trapped being unable to extricate themselves and many perish in it. During the recent drought 35 sambhur and 12 buffaloes died of thirst. Of this number, 25 sambhur and seven buffaloes died at Kokkari Villu. Elephants, sambhur and buffalo have been forced to travel in search of water to the Moderagam Aru and Kala Oya.

Morning Times.

(ii)

Fire raged through vast acreages of land in the Intermediate Zone of the Wilpattu Game Sanctuary. This fire was man-made. Thousands of acres of jungle felled at the Maha Villachchiya Irrigation Scheme were set alight before allotment to peasants in the area.

The rape of the animal population goes on apace. Herds of sambhur and deer trapped in pockets of uncleared jungle are being massacred.

Villagers, here to clear their allotments and settle in, have temporarily downed their mamoties and katties and taken up the gun and knife.

Our correspondent who visited the irrigation scheme saw the gruesome sight of two villagers cutting up the carcase of a doe. It had been in young. He also saw about three or four hundred pounds of venison being dried over a large bonfire.

He looked for a game ranger. There was none in sight. He learnt there were none in the area at the time.

Observer.

(iii)

Wild Life Warden, Mr. J. A. De Silva, appealed to the colonists of Maha Willachiya to stop slaughtering animals of the Wilpattu East Intermediate Zone.

He said : " These animals are being chased out of their natural haunts to make room for us humans. This is the breeding season, and almost every doe shot down today will be carrying young

ones. These animals, through no fault of theirs have been rendered homeless and the least we can do is to let them find their way to a new home."

Mr. De Silva said it was an impossibility to prevent this slaughter in such a vast area as the Wilpattu Intermediate Zone with the staff available to the department. " We will need an army," he said.

There are 160 Wild Life staff in the field. They are distributed over the Island, and the number of personnel now allocated to the whole of the Wilpattu sanctuary is only 20 strong.

The slaughter started five days ago, and has been going on unabated. A vast patch of forest—nearly 6,000 acres was felled and set on fire as part of the programme of the Maha Willachiya tank restoration scheme.

The fire drove into the open all forms of wild life—protected, and unprotected by legislation. And every man with a gun and ammunition lay in wait for them.

The Wilpattu East Intermediate Zone is one of the richest in the Island for game, and the extent of the slaughter incredible.

The Maha Willachiya tank restoration project has narrowed the Intermediate Zone which acts as a buffer between the Wilpattu Sanctuary proper, and civilization, to such an extent at this spot that even the safety of the sanctuary is threatened.

Wild Life Department Authorities are now taking steps to prevent wild life of the sanctuary straying into the open here, in search of water during droughts.

They have selected a number of water-holes in this area, which will be deepened enough to hold water even during the dry seasons. They expect that few animals will stray beyond these points if the holes contain water.

LOOPHOLES IN THE ORDINANCE

THE massacre of wild animals in the village of Halambawa, in the Anuradhapura district, has brought to light the fact that, because of loopholes in the law, game rangers are, at best, enthusiastic figureheads—legally incapable of functioning as protectors of the country's wild life.

The provisions of the law today prevent a game ranger from either arresting anyone whom he has even caught in the act of shooting animals illegally, or taking down the offender's name and address, or of confiscating the meat which, to a certainty, will appear in the nearest town as a " contraband delicacy."

It amazes us that such a patently ludicrous situation has existed since 1937—when the Wild Life Ordinance first became law—without any concrete plans for its alteration. Unless there is a radical change in the provisions of the law, the game ranger might as well pack his sleeping bags and return home, rather than continue to endure the hardships of forest living and the frustration of attempting to carry out his assignments with no legal authority to back his actions.

Ed.—The **Fisheries Ordinance of 1940 has been amended in 1956.** Section 19A of it reads as follows: 'Auy officer appointed under section 2 (1) may, if he has reason to believe that any offence under this ordinance has been committed, **seize and detain** any fishing boat, or any fishing net, or other equipment or instrument or any vehicle used in or in connection with the commission of the offence, or any fish taken in the course of such commission.'

It is a similar amendment that we urgently need in the Wild Life Ordinance to block the 'loopholes' alluded to above.

Act Now to Save the Elephants

THERE WILL BE NO ELEPHANT LEFT IN 50 YEARS.—Such was the banner headline in the *Ceylon Observer* of 1st August, 1957, over a symposium of the opinions of several wild life enthusiasts which are here summarised :—

DR. R. L. SPITTEL said that unless immediate action was taken by Government to stop the slaughter of elephants (87 in 1955, 79 in 1956), there will be no elephants left in 50 years' time. He recommends the setting up of a board of the representatives of five departments concerned before the future opening up of land for agriculture, so that a sufficiency of jungle with connecting corridors would be left to prevent pocketing of herds. He doubted that our National Parks were large enough to provide the necessary food throughout the year.

MR. P. E. P. DERANIYAGALA did not expect wild elephants to last more than 70 years. He thought the most practicable thing to do to preserve the Ceylon elephant would eventually be to transfer them to the Amazon jungle.

MR. C. W. NICHOLAS, retired Warden, said irrigation schemes had prevented the migration of elephants, and they now lived in pockets here and there. Unless they were protected and preserved they would sooner or later be exterminated.

DR. C. H. HOLMES, Conservator of Forests, said that when the natural areas in which they lived were restricted, the wild elephant population would drop below a certain point and there would be no natural reproduction.

MR. ALOY PERERA pressed for timely action by both the Government and the people themselves to protect elephants. The people should resort to other methods to protect their crops than indiscriminate killing.

COL. C. P. JAYAWARDENE stressed the urgent need for more stringent and definite measures for elephant protection. He said that areas which were now their only safe habitats should be left alone and never opened for cultivation. The Heda Oya—Gal Oya Sanctuary should never be further encroached upon. It was easier said than done to guide marooned herds through jungle corridors from areas already opened up. The "Elephant Walks" in the districts have to be carefully studied before the corridors are demarcated. This was a task for the expert and would take time. Regarding the proposal to drain the Manampitiya marshes of the Mahavelli for paddy, that would most certainly mean goodbye to the greater part of the finest type of wild elephant in Ceylon.

MR. C. E. NORRIS considered it very necessary to take an elephant census, and appoint a Commission to survey Wild Life Reserves in the Island. Some of these could be discarded, while others like Yala could be expanded. Wasgomuwa, he thought, was not worth worrying about.

MR. E. B. WIKRAMANAYAKE said there was no doubt that Ceylon's wild elephants were dwindling at a terrific rate. The shooting of them should be banned even if they attacked crops, as they were uselessly slaughtered on this score. The Land Department should survey corridors along which elephants could move from one large feeding ground to another without breaking into farmers' cultivations.

Devastation of Jungle

The almost-too-late plans to delay the eventual extinction of the Ceylon elephant are feasible enough but can hardly be expected to be a success. No "corridors" or sanctuaries can keep the elephants away from their migratory and foraging expeditions. The wild elephant is a born robber of crops and however vast a jungle they may live in, undisturbed by man, they will continue to raid crops outside their fastnesses and suffer the terrible vengeance so briefly termed "protection of crops."

This "protection of crops" is about the most abused privilege in Ceylon today ; under

its guise, poachers, thieves and murderers have obtained firearms which never " protect crops."

In the days of old, when Ceylon had a huge population and enormous tracts of paddy under cultivation, vigilance and not firearms kept the huge herds of wild elephants away. In those days there were many thousands of wild elephants no less anxious to dine off the luscious crops sown by man ; and the sturdy, persevering, hard-working villagers and farmers kept them away by keeping awake all night and lighting fires, beating drums and shouting.

Nowadays the average cultivator has far too many nocturnal pursuits or is too indolent to stay awake and guard his fields as effectively as his ancestors did. He keeps a boy or two to half-heartedly shoot away the marauders, a loaded Harrington and Richardson 12-bore by his side. As soon as any animal is detected inside (or outside) his fields, he flashes a 5-cell Winchester torch at it and shoots merrily away at the eyes.

If it is an elephant, the wretched creature trumpets in pain and lurches away to suffer, turn rogue or die a lingering death of maggot-infested shotgun wounds. If it is a deer or a wild boar the lucky man is richer by at least Rs. 25.

The majority of " crop-defending shotgun owners " are able hunters after dark and there is no village in Ceylon, in forested areas where there are not less than at least 10 shotgun owners who walk at night and shoot for a living. When they meet elephants they simply pull the trigger and run away.

The so-called " development " of our forested country, the last stronghold of the dwindling wild-life of the country has, and is being done without the slightest regard for the fauna or flora.

Take a look at the miles and miles of devastated jungle between Kantalai and Trincomalee. Although painfully (and expensively) obvious that only a fraction of this can be irrigated by existing schemes, the jungle is being hacked away ruthlessly for the short-term policy of " land development." It is ludicrous to see lorries transport water to the inhabitants of these " colonised areas " for more than eight months of the year !

View the devastated scrub-land that was once lush virgin jungle in the Embilipitiya area. Now bereft of its magnificent jungle trees, it is a vast wilderness of scrub and thorn, more impenetrable than ever before, subject to gullying and erosion during the rains and of no great use to anyone.

If the elephant or any wild life is to enjoy some measure of preservation there must be complete understanding and liaison between the Irrigation, Land Development, Forest, Agriculture and Wild Life Departments.

If the Wild Life Department were to receive more attention and financial assistance it would be a step in the right direction. At the moment it is a pitifully understaffed young department.

RODNEY JONKLAAS.

400 Elephants Lost in 5 Years—Warden's Report

The total loss by capture and death of elephants during the five years, 1952-56 amounted to 400 animals. This figure represents 40 per cent. of the estimated entire population of 1,000 animals in 1951.

The Administration Report of the Warden, Department of Wild Life, for 1956 states that on the basis that the nett natural increase by birth per year is 6 per cent. to 7 per cent. and the rate of their destruction by human agency is slightly in excess of this, the entire population now is estimated to be around 750 to 800 animals. This means that there has been a loss of 22 per cent. during the last five years.

The report states that the number of elephants found killed, captured, killed by accident and those that died of natural causes amounted to 79 animals in 1956. In 1955, the figure was 84 animals, in 1953, 82 animals, and in 1952, 74 animals.

The number of animals killed during 1956

in defence of crops was 24, making a total of 273 for the last five-year period.

Efforts were made to persuade villagers to resort to means other than shooting in the protection of their crops, but little success had been achieved so far.

The report adds: "When numbers are reduced by slaughter, lack of feeding grounds and natural causes, a point will soon be reached when the surviving population will be too few to perpetuate their kind. Although they may provide for a few more generations, from this stage onwards, no protective measures, however complete, will save the species from eventual extinction.

"The Koala of Australia and the North American Bison have been saved only in the nick of time by special protection. If the Ceylon elephant is to be preserved for posterity every effort must be made now to afford him sanctuary so that their numbers will be maintained above the level of no return and not allowed to slide down the slope of extinction.

"Compensation amounting to Rs. 12,404.90 was paid by Government in 1955-56 to peasants whose crops had been destroyed by wild elephants. That they should have compensation as well as the right to destroy the elephant causing it may not be all that reasonable when one considers that man, rather than the animal, is the real intruder in areas where danger from elephants is apprehended.

"A move in the right direction for the protection of this noble beast would be to pay full compensation for damage and loss of crops and restrict the cultivators' right to scaring away the marauder.

"Education of public opinion and rousing public interest by effective propaganda and publicity are a *sine qua non* in the effective preservation of our rich heritage of indigenous plants and animals."

September. *Morning Times.*

Government Apathy Regarding Wild Life

We are grieved—but hardly surprised—to note the charge of the Secretary of the Wild Life Society, at the July meeting in Kandy, that in his nine years of office only one Minister and not even one Permanent Secretary had "graced" the Society's annual meetings. For we are a long way, alas! from the days when the public figures (and the public servants) of this country were in the forefront of any movement for the foundation or promotion of the many "learned societies" that have flourished in their time.

Doubtless the Secretary's approach was wrong: we are confident that had he requested the luminaries to "open" some project or to "speak a few words" in an official or honorary capacity the response would have been vastly more stimulating. Our public servants and politicians have little time for and less interest in the mere humanities.

Yet, it was not always thus: this country boasted its Tennents, its Dykes and Twynams, its Turnours, Parkers and J. P. Lewises and many others who left it the wiser and the better for their tenure of office and the use to which (from the breadth and depth of their knowledge and interests) they put their leisure time. They studied—and promoted the study of history, natural history, archaeology, folk-lore, and a score of other subjects. They did this not as part of their official duties but as a natural outlet for their cultural and humanitarian interests.

It seems a deplorable thing that with Independence and the Ceylonisation of the public services such interests on the part of officials, far from increasing, as they might have been expected to do, have suffered an eclipse. We can only hope that this will be only a temporary matter.

The country is not saved by a nation of narrow individualists but by men whose culture and interests are as broad as the land itself; whose enthusiasm springs not from a desire to make public appearances as "patriots" but from a love of the country.

Daily News.

Government Promises Action

On 8th September, 1957, MR. C. P. DE SILVA, Minister of Lands and Land Development, announced in the House of Representatives that he was appointing a Committee to go into the whole question of the protection of wild life in Ceylon with particular reference to the elephants.

The Committee would be required to report on (i) the steps to be taken to protect wild life in Ceylon ; (ii) the question of sanctuaries and corridors ; and (iii) the reorganization of the Wild Life Department.

Suggestions to Safeguard Elephants

In the process of village expansion and land development, vast tracts of forests which were the home of the elephant have been reduced. Section 13 of the Fauna and Flora Protection Ordinance permits the killing of an elephant which trespasses or attempts to trespass upon cultivated land. If the cultivator is unable to shoot it in the act of trespass, he is permitted after notifying any police officer, *to pursue it and kill it in the jungle.*

Herein lies the piece of legislation which gives the cultivator unhampered rights in the exercise of which wanton destruction is caused to the elephant population. The elephant is a persistent crop raider and the villager has many a time realised that the fruits of many months of hard work and toil have been wiped out by a single elephant in a single night.

It is very easy for the armchair critic to pour his wrath on the poor villager who is fighting for his very existence not only against the elements but also against a very formidable and live menace in the crop-raiding elephant. The blame for this state of affairs must rest squarely on the shoulders of the authorities who have permitted haphazard cultivation in remote jungle areas and have given the cultivator the right to shoot, as and when he likes, trespassing animals without prior resort to other more practical and protective measures.

In addition to the protective measures already adopted, the Commission should investigate the possibility of implementing the following suggestions :—

(i) No areas from the Strict Natural Reserves, National Parks and Intermediate Zones should be surrendered for agricultural and village expansion schemes.

Note.—The proposed Kaudulla tank restoration scheme will "unreserve" the entire Veddikachchi Intermediate Zone of nearly 126 square miles ; and parts of the Hakgalla Strict Natural Reserve, the Wilpattu National Park and the Wilpattu East Intermediate Zone are to be surrendered for agricultural grazing and reafforestation purposes.

(ii) Haphazard cultivation in remote jungle areas is to be discouraged. Chenas situated adjacent to each other, instead of being widely separated, would engage fewer watchers as it is only the perimeter of the jungle edge which is in danger of trespass whereas every point in a small isolated chena is in danger.

(iii) It is very necessary that methods of driving elephants away from fields and chenas without recourse to shooting be adopted. Methods employing a combination of illumination and sound such as the use of the electric torch, smouldering ropes crackers and rockets which burst in a shower of sparks should be employed. These items should be supplied free of charge or at a nominal cost to the cultivator.

(iv) The building of stouter fences round the chenas and the burning of fires close to the watch huts are to be encouraged. (No expense is involved as the stakes for the fences and jungle creepers are a good substitute for rope and firewood to feed the fires are freely available).

(v) Compensation to the full extent of the damage should be paid by government provided the cultivation was properly fenced and watched.

(vi) Appeals to be made to the cultivators'

religious beliefs by propaganda through Rural Development Societies against the shooting of trespassing elephants.

(vii) The Fauna and Flora Protection Ordinance should be revised and Section 13 of the Ordinance suitably amended.

(viii) Jungle corridors are to be established to guide marooned elephants into forest reserves far removed from cultivated areas.

(ix) The proposed Commission should assess the feasibility of the creation of the proposed new sanctuary in the *Manampitiya* area for the protection of the *Marsh Elephant*, and survey the status of the Strict Natural Reserves, National Parks and Intermediate Zones as are existing at present, and advise on the redemarcation of boundaries where applicable.

These proposals were at one time or another brought to the notice of the authorities who, due to lack of vision or shortness of purse, brought about the precarious status of the Ceylon elephant. It is hoped that immediately action will be taken to ensure the preservation of the elephant for posterity. Any dilly-dallying will inevitably result in Ceylon losing the finest of her Fauna.

A. G. SAMARASINGHE.

Colombo 4.

Compensation for Damage of Crops

It is not too much to describe as nothing less than shameful the indifference with which the Ceylon elephant is being allowed to die out into extinction as much by the apathy of the authorities as by the callousness of the people.

It is a warning that has been sounded again and again—without appreciable effect. We are told that efforts are now being made to educate villagers to resort to methods other than wanton killing. But we should like to know how best to educate the authorities into understanding the position of the villagers.

We have often commented before on the short-sightedness of Government policy in paying the villager compensation in the case of crops damaged by wild elephants only for "*the shortfall in food supply for family needs*" and not full compensation for all the damage done. This means that if a man's field produces more than his family needs and elephants destroy all the surplus, then the man gets no compensation at all. Rather, therefore, than lose the profit he might make but for the destruction wrought by the elephants, he shoots the elephants—and it is hard to blame him.

For the last three years the figures in compensation paid have averaged Rs. 10—12,000 and the numbers of elephants artificially destroyed have been 81, 84, 79 respectively. Here is proof that the old vicious circle obtains unbroken.

To pay *full* compensation to villagers definitely able to prove their crops to have been destroyed by wild elephants (and not by neglect) would cost the country about 1½ lakhs a year; about the value of 13 elephants. But it would guarantee (unless it is already too late) the preservation of our elephant population doomed to be soon reduced to nothing.

8.8.57. *Daily News Editorial.*

Col. J. H. Williams (Elephant Bill) our Best Adviser

One often hears the expression "The Last of the Mohicans"—very soon its place will be taken by "The Last of the Ceylon Elephants."

Quite recently there appeared an article in the local press which read as follows:

"A full-grown she-elephant died of gun shot wounds in a village of Werakitiya. Who shot it, when, where or how, no one knows."

This type of press announcement has long ceased to be news. It is just a routine occurrence detrimental to our national heritage—the lordly monarch of the jungle.

Many are the articles that have been written as how best one could conserve and protect the elephant population, but sad to state, to

date nothing tangible has materialised from these numerous suggestions; meanwhile the elephant population is fast dwindling.

Recent reports state that Ceylon has a wild elephant population of approximately 700. This figure is just guesswork as no one can say with authority approximately how many animals still roam the wilds of Ceylon, there may be less, there may be more.

Instead of going on wild guesses why not have census of Elephants? Somebody who knows both elephants and jungle craft and has an international reputation as a first-class organiser is needed for the job. A man like, Col. J. H. Williams (Elephant Bill) will receive the fullest support of world food and wild life organisations. Undoubtedly there will be financial implications if a census and report on conservation are wanted, but the money so expended will be amply compensated, for by the benefits Lanka would derive perpetuating not only our elephants but wild life in general. Time in this issue is a vital factor, and actions mean more than words.

Immediate steps to save the elephants and the formation of a National Trust are matters of paramount importance and the public should not be content with mere appointment of committees and commissions.

IVOR RODRIGUESZ.

September. *Observer.*

In Search of the Giant Swamp Elephant

By MOHAN TENNEKOON

FROM Manampitiya onwards the Mahaweli Ganga, the longest river in Ceylon, flows through arid country containing large swamps in its flood plain, which are the habitat of the Giant Swamp-elephant. The main object of our journey was to see and observe these elephants in their natural surroundings. Much has been written about the hazards of a journey down the Mahaweli, but the novelty of the trip together with the prospect of viewing a distinct sub-species of the Ceylon elephant outweighed all other considerations.

We set out from Manampitiya at about noon on the 10th August, 1957. Our party consisted of myself and my brother-in-law, Dr. W. R. Gooneratne. The boat was a fibre glass one equipped with an outboard motor. For the first three miles our progress was slow due to the formation of sand bars which alternated from both banks and cut across the river leaving only small gaps for the water to flow through. We had to row or push the boat for the major part of this distance. There were Stone Plovers in pairs on the sand banks. In spite of their size they were inconspicuous on the ground. On seeing us they ran quietly along, keeping a fair distance from us.

The river now branched into two. The right branch was the bigger one, and is the main river. By 1 p.m. we had traversed a distance of about four miles and as we were very hungry we stopped for lunch on an abandoned chena. While having lunch we heard some very big strikes in an *odai* (streamlet) close by, but we were unable to make any casts due to the snags in the streamlet. The river was narrower now and the water was emerald green in contrast to the previous muddy brown hue, showing that the river was deeper here. We made good progress using the motor. The river occasionally took a big meander. About eight miles downstream from Manampitiya on the left bank, there is a life-sized head of an elephant carved out of rock accurately reproducing the four vertical pleats in the lower lobe of the ears of the adult swamp elephants.

This stretch of river is a kingfisher's paradise. Of the seven kinds of kingfishers found in

Ceylon, six species are common here. The Pied Kingfisher is particularly common, and is usually seen in flocks of four to five. They hover with rapid wing beats about 40 ft. above the water, intent on the movements of the fish below. It constantly utters a pleasant, jingling cry and looks like a large speckled butterfly. Suddenly it flashes downwards like a dive-bomber and emerges from the water with a gleaming silver fish in its beak.

In contrast was the *modus operandi* of the common Ceylon Kingfisher, who either skimmed low over the water looking for its prey or dived suddenly after it from a low branch. The Three-toed Kingfisher, which looks orange and lilac pink in flight with its scarlet beak showing to advantage, is not so common. The loud, flutey leisurely cries of the Stork-billed Kingfisher repeated in descending scale is a common early morning chorus, reminding one that it is not uncommon here. The other two species of kingfisher found here are the Ceylon blue-eared and the Ceylon white-breasted.

We passed the Kandakadutorai Irrigation Camp at about 5.30 p.m. and when dusk was falling had reached a lovely jungle-girt island about eighteen miles downstream. We decided to camp on a sand bar near the island for the first night. In spite of the mosquitoes we slept well. The loud cat-calls of peacock heralded the dawn.

It was a bright, sunny morning as we wended our way past the lovely, jungle shaded island. There were numerous passages polished smooth where elephants slide to the water, and we were now certain that we were in the country of the Swamp Elephants. There were flocks of Night Herons roosting in the trees overlooking the river. They were disturbed by the sound of the motor and started flying about. At dusk, the loud and harsh quark, quark of the night herons flying to their feeding ground is a common night noise. Grey-headed Fishing Eagles sounded their clarion call from the high trees overhanging the river, from where they watch for shoals and swoop down upon surfacing fish, seizing them in their talons. Two crocodiles were basking in the sun with their mouths wide open. A smaller one sunning itself on a rock appeared quite unconcerned at our presence.

About 10 a.m. we anchored our boat and rested a while in a Muslim wadiya. Here there were flocks of Eastern Purple-faced Monkeys, who betrayed their presence by an occasional crackling of the branches. They are almost as large as the Grey Langur, but have flatter heads and longer hair on their shoulder and backs.

We induced one of the Muslims to take us in the evening to a villu, which was about half a mile from the banks of the river. This was a typical villu of the area. Imagine to yourself a vast sea of land extending for hundreds of acres as far as the eye can see ringed in by virgin high forest. Interspersed here and there and sometimes extending into the zone, of the larger trees are lighter green islands of swamp grass and muddy lakes. The river itself occasionally thrusts its long octopus-like arms into the verdant land as in this villu, where the odai runs right through the plain.

The swampy part itself is water-logged. In other words, the water is the foundation stone on which the swamp edifice has been built. Walking through such terrain is very laborious and slow, and frequently, the mud reaches up to one's knees. The whole watery base is covered by a lush carpet of swamp grass about four to five feet high intermingled with water lilies. Here and there are scattered large trees like giant umbrellas placed at convenient spots to provide a shade for the forest denizens. The whole ground is pitted by foot-prints of elephants, some of which are about three feet in diameter. Well defined elephant roads were also visible breaking the monotony of the carpet of the green grass. This then is the typical habitat of the swamp elephant.

We were at first unable to see any elephants so naturally do they blend with the surrounding vegetation. But closer inspection revealed

two light brown giants feeding placidly on the abundant fodder about a hundred and fifty yards from us. My brother-in-law cautiously approached to about fifty yards of the elephants and took colour movies. A little later the wind direction changed and we observed one of the elephants raise his trunk and scent the air. Having got our scent they melted into the jungle. Another herd of elephants had meanwhile emerged from the jungle, on the far side. The plain was however so large that they looked the size of cattle.

About half an hour later a herd of five appeared about seventy-five yards from us. We approached this herd along a small odai, being always careful that they did not get our scent. We were able to note :—(i) their massive size, (ii) absence of visible tusks ; (iii) the lighter colour, and (iv) the massive trunk which distinguishes the swamp elephant from the *forma typica*. The herds appear to be small, the four herds we saw consisting of two, six, five and three animals, respectively.

According to our observations the elephants come out to graze in the cool of the evening at about 4.30 p.m. and continue feeding throughout the night and till about 8.30 in the morning. This, in effect, makes them semi-nocturnal animals.

They appear to feed mainly on the swamp grass and the water lilies. We noticed that all the elephants and one in particular had a marked hump about the middle of its spine. The trumpeting of the elephant also sounds different from that of the " forma typica." It contains an elements of a roar in it. Further the swamp elephant seems to trumpet much more than other wild elephants.

At about 7.30 a.m. the following morning, we started on our journey back. The going was very slow as we had to contend with the current. Nearing Manampitiya we took turns to row to help the motor as we were running out of petrol. In spite of this the petrol finished when we were about one and half miles from Manampitiya. We stayed the night at a tobacco wadiya and in the morning we induced one of the Muslims to take the boat in his cart to our starting point, Manampitiya bridge, where we had left our car. The following is a list of the other birds seen on this trip.

Parson's Stork, Terns, Cormorants, Brahminy-Kite, Green-Bee-eater, Ceylon Paradise Fly-catcher (male), Ceylon Shama, Taylor Birds, Crows, Common Myna, Common Iora, Barbets, Ash doves, Black-headed Oriole, Swallows, Pompadour Green Pigeons, Imperial Pigeons, Painted Stork, Parakeets, Crimson-backed Woodpecker, Munias, Weaver Birds, Red-vented Bul-bul, Jungle Fowl, Red-wattled Lapwing.

Nature in Virgil

By E. B. Wikramanayake—in a Talk before the Classical Association of Ceylon.

I HOPE that at the end of my address I shall have persuaded even one of you that, in the words of Lord Grey, " if you cultivate the capacity for outdoor nature you will find through life that it goes on increasing and never palls. You will be getting fresh interest and increasing pleasure and in your pleasure you will find happiness and contentment."

I believe with Dr. Frank Chapman that " if you would reap the purest pleasures of youth, manhood and old age, go to the birds." But it is not of birds alone that I wish to speak today but of Virgil's general love, appreciation and understanding of Nature, for to rejoice in the good things of Nature, the beautiful earth, the glorious sun, the fruitful fields, was, for Virgil, almost an act of worship. His sur-

roundings, his upbringing, his associations, his natural bent, all conspired to foster in him a love of birds and bees, the animals of the farm, trees and shrubs and the manifestations of Nature which he describes with such affection in the Georgics.

" *Then let the countryside be my delight*
With freshlets lilting in the vales and let
Me tell my love to woods and rivulets
Unknown to fame."

(From the second book of the Georgics in a translation called " The Singing Farmer," by Jermyn).

Virgil was born at Andes, near Mantua, in the year B.C. 70. His father is said to have been a potter who kept bees to supplement his income. It should be remembered that, in the absence of sugar, honey was an article of much more importance than it is today. Virgil was therefore probably going back to boyhood when in the Fourth Georgic he writes with so much humour and affection of the bees. Virgil's early years were spent at Cremona whence he went to study at Milan and afterwards at Rome. He studied law, but his first appearance at the Bar was not a success and he went back to Mantua and began serious work upon pastoral poetry.

In Virgil's day it is probable that the great Plain of the Po was occupied by dense forests, and much of the land round Mantua was undrained and marshy. It must have been a wonderful place for birds and Virgil knew them all. He had watched the doves build their nest on the top of the elm trees and taken the young. His observation was both keen and accurate. He noted how the good-for-nothing crow, inviting rain, stalks on the dry sand mateless and alone. The crow to the Romans was a weather prophet. It is interesting to note that Gilbert White in one of his letters writes : " All the time the wind continued North and North-East ; yet on the 8th roost cocks which had been silent began to sound their clarions and crows to clamour prognostic of milder weather."

It is not quite certain whether Virgil roamed about with the Italian equivalent of a catapult, but he certainly snared birds as reference to the Georgics will show.

" *Now's the time* (he says)
To gather acorns, olives, bay berries
And blood red myrtle, set your snares for cranes."

And again :—

" *No penalty is laid on him who guides*
The waters' hillside flow, fences his crops
Sets bird traps, burns away the thorny scrub
Or at the steep wash dips his bleating flocks."

But even in Virgil's own day the landscape was undergoing change. After Philippi, the first task of the Triumvirs was to provide for the demobilisation and settlement of their immense armies. For this purpose the lands of the Italian towns or communes which had taken the other side in the Civil War were confiscated. The forests had to come down. The land on which it stood had been idle for years and men required it. But while the axes swung and the trees fell the young poet, watching, saw the havoc made of the birds' immemorial homes. He saw the scattered nests ; he saw the frightened birds hovering in the air over the spot where they were to build no more ; and though he hailed the cultivated fields that were to be, he never forgot the sorrow of the birds.

" *Such land* (*he says in Book II of Georgics*) *as has been cleared*
Of timber by the cursing ploughman when
He uproots woodland, many a year untouched
To crash in ruin, dragging down the homes
Longstanding of the birds. The whirring wings
Soar upward, nests are emptied, while the plain
Shines 'neath the driven share, though rough before."

And when in Book II of the Aeneid Virgil came to speak of the destruction of Troy, he called to mind :

" *The world-old ash tree on the hills*
Which woodmen try to fell with many a stroke
Of axe on axe but still it threatens long,
And nods the tresses on its trembling head.

Till, o'ercome by wounds, with one last groan
It falls uptorn in ruin along the ridge."

It is to the Georgics mainly and not to the Aeneid that one must go if one wishes correctly to appraise Virgil's understanding of Nature. For the Aeneid dealt with serious matters. When Virgil forgets to be conventional and falls back on his own experiences and observations, he gives us some insight into his sympathy with Nature. The lifeless Pallas is likened to :

" *Some soft violet or harebell frail*
Plucked by a maiden's hand which hath not lost
Its glow and beauty as yet but now the Earth
Its nursing mother lends it life no more."

And Euryalus :

" *Falls lifeless, blood o'er-runs his lovely limbs*
And on his shoulder rests the drooping neck
As when some rose red flower the plough hath shorn
Lies faint and dying or as poppy heads
Loaded with rain bow down on the tired stem."

One more passage deserves quotation. It is one in which Virgil is evidently describing an everyday sight of an Italian spring and summer. I quote from Mr. Mackail's translation :

" As when a black swallow flits through in flight in the lofty halls, gathering her tiny food for sustenance to her twittering nestlings and now sweeps down the spacious colonnades, now round the wet ponds, so flying fast all round Juturna drives."

This simile, says Wards Fowler, is the most perfect passage about the swallow he has ever met with in poetry.

I come now to the birds in Virgil about which Warde Fowler has written a charming essay in his book, " A Year with Birds."

Virgil mentions some 20 birds by name, but of course, he must have known a good many more. At this point of time it is difficult to identify a good many of them for two reasons. In the first place the average Italian of the time was probably like the average Sinhalese of today to whom any small bird is a " baticha " whether it be a Tailor Bird, a Sun Bird or a Flowerpecker.

In the second place, the character of the countryside has changed considerably since Virgil's day. The great forests are gone. The swamps and marshes have been dried up by drainage and the clearing of the forests. As a result a change has come over the climate, and birds which bred in Italy in Virgil's time are not found there today.

Virgil mentions for example, two pigeons, *Columba* and *Palumbes*. By *Columba* is probably meant the Blue Rock Pigeon, *Columbo livia* which is the ancestor of our domesticated pigeon. It is difficult to discover what bird was indicated by *palumbes*. Warde Fowler thinks the reference is to the Stock Dove. In the third Eclogue, Damoetas mentions that he remembered an elm tree where a *palumbes* had built her aerial nest. But neither the Stock Dove nor the Ring Dove with which Thompson identifies it in a Glossary of Greek Birds now breeds in Italy, so that it is not possible to say which bird was indicated by Virgil.

Similarly, Virgil distinguishes between two members of the crow family, *Corvus* and *Cornix*. The Corvus is gregarious, the Cornix is solitary. Warde Fowler identifies Corvus with the Rock and Cornix with the Raven. In the First Book of the Georgics Virgil thus describes Corvus.

" *Then the clear utterance of the Rook is hushed*
Thrice or four times they caw while oft on high
By what delight I know not, strangely clad
They raise a bed time chatter among the leaves
Joy after storm to see their brood again
Revisit their dear nests."

Another bird that is difficult to identify is the Halcyon. It is generally translated kingfisher and there is little doubt that it is a kingfisher. The " Halcuon " of the Greeks was not a kingfisher. It was probably a tern. In the Third Book of the Georgics, the poet tells the farmer to water his flocks in the cool evening of a hot day—

" *When cool eve*
Allays the air and dewy moonbeams shake

The forest glades, with Halcyon voice the shore
And every thicket with the Goldfinch rings."

Warde Fowler is at a loss to explain the Halcyon's singing. The Kingfisher, according to him, is a silent bird except when disturbed; he will then utter a shrill pipe as he flies away. And Royd in his "Beasts, Bird and Bees of Virgil" finds the same difficulty. The real Kingfisher, he says, utters only a single note resembling the alarm note of the Swallow and certainly does not sing as in Book III it is supposed to do.

That may be true of the British Kingfisher which corresponds to the small Kingfisher of Ceylon called the Ceylon Common Kingfisher by Henry (*Alcedo attis taprobane*—to give it its scientific name). But our local White-breasted Kingfisher (*Halcyon smyrnensis*) has a loud trilling cry which is uttered both in flight and at rest and can certainly be called a song. And Jermyn notes that the call of one of the Malayan Kingfishers is nearly as loud as his orange waistcoat. Some Italian variety may have been equally noisy.

Difficulties arise with regard to certain other birds mentioned by Virgil. What bird, for example, did Virgil intend to refer to by *Fulica marina*. The word means literally "sea coot." But Coots are not birds of the sea. Rhoades translates it "cormorant" which is also unlikely for the Cormorant is also not a bird of the sea. Exact identification of the bird is not possible, but probably some sort of Gull was meant. Virgil had doubtless seen them flying to the Campanian coasts before a coming storm.

Among other birds mentioned by Virgil are "the swan," which is without doubt the Whooper (*Cyenus cycnus*) whose voice and presence are still well known in Italy and Greece. It is the voice of the swan that Virgil appears to have particularly noticed.

Three others that may be grouped together are the Stork, the Crane and the Goose. The stork is the White Stork (*Ciconia alba*) which, according to Legge, had also visited Ceylon about 80 years ago. Virgil does not refer to it by name, but describes it as: *Candida avis longis invisa colubris,* "the bird that is the bane of long serpents." Aristotle says that its snake eating propensity was considered so valuable in Thessaly that it was protected by law.

The crane is called "Strymonian" and was, no doubt, a migrant. Virgil mentions it among the three banes of the farmer.

"*The villain goose and the Strymonian crane*
And bitter fibred endive can effect
Grave injury."

Royd says that it was and still is a pest in Italian cornfields. Virgil advises snares to be set for it but it appears also to have been well esteemed as a table bird.

Occasional mention is also made of the Bee-eater, a slim and beautiful green bird that is very common in Ceylon, the Owl and the Nightingale.

Virgil's treatment of the Nightingale has come in for a good deal of criticism. There is only one reference to the Nightingale and that is in the Fourth Book of the Georgics.

"*As in the poplar shade a Nightingale*
Mourns her lost young, which some relentless swain
Spying, from the nest has torn unfledged, but she
Wails the long night and perched upon a spray
With sad insistence pipes her dolorous strain
Till all the region with her wrongs o'erflows."

It is objected that in England the Nightingale does not sing after its young are hatched. The answer to this by Countess Caesaresco in her book, "Outdoor Life in the Greek and Roman Poets" is that, if the objector would take the train to Mantua in June, he would hear the Nightingale singing so loudly in the woods through which the railway passes, as it nears the morass, that they drown the noise of the engine. The retort to that is that in Italy Nightingales often have a second brood and sing in July. The truth of the matter is probably that Virgil was merely taking over a passage from Homer without giving a thought as to whether it was good natural history or not.

From birds let us turn to flowers, for Virgil knew and loved them too. In the Second Eclogue Corydon tells Alexis:

" See the bright Naiad plucks gold irises
And poppy heads to blend with scented dill.
And sweet Narcissus blooms : then weaving in
Cassia and many a fragrant herb she sets
Dusk hyacinths in yellow marigold."

It seems to anticipate Shakespeare's

" Daffodils
That come before the swallow dares and take
The winds of March with beauty : violets dim
But sweeter than the lids of Juno's eyes
Or Cytherea's breath : pale primroses
That die unmarried ere they can behold
Bright Phoebus in his strength . . ."

And in the Eighth Eclogue is this beautiful picture :—

" Once in our orchards—thou wast tiny then—
I watched thee culling apples dewy fresh.
I showed them—with thy mother. The twelfth year's kiss
Had touched my brow, and standing on tiptoe
I just could reach the brittle branches. There—
I saw and fell : my heart was mine no more."

It calls to the mind Sappho's beautiful description of the apple left ungathered on the tree :

" As the sweet apple ripens on a bough's end,
At its very end, the gatherers have forgotten it :
Nay they did not forget but could not reach it."

Can you Identify your Bird from its Call?

By DOUGLAS RAFFEL

THE study of birds does not need my assurance to make it any the more interesting. But I believe I belong to a small band of bird lovers who pay as much attention to the calls or songs of birds as to the birds themselves. I believe a mute bird, however brilliantly plumaged, is about half as interesting only as a bright vivacious songful one. It has been my habit to roam through scrub jungle or wooded area, not looking at birds, but counting up the numbers of kinds of birds I have met that morning or evening, by checking up on the bird calls or songs that greeted me from moment to moment. Having decided which bird it was who uttered that particular call or song, I have *then* checked up by looking at the bird with my binoculars. And in time it became almost an unconscious habit of mine to register a certain bird as being present in the garden at Palatuwa (near Matara), while I read or wrote or painted. For example, yesterday while I re-read Spittel's new edition of " Far Off Things " my mind registered the fact that the number of Fan-tailed Warblers in the adjoining paddy fields had increased and that there must be nests, too. A fact which I confirmed later. (I had not forgotten that the first Fan-tailed Warblers' nests I had ever seen were on the Racecourse in Colombo years ago in June !)

Some time ago a friend visiting this bungalow remarked on the number of birds he was able to see while we chatted on the verandah. I laughingly replied that that was about only half the number of birds there were in the garden at the time and pointed out to him at once a pair of Jerdon's Chloropses which he would not otherwise have seen, on an " Anona " tree, where I knew they were, because I heard them twittering there ! I also showed him two pairs of Red-backed Woodpeckers and a pair of Yellow-naped Woodpeckers on various coconut trees, as I had heard their calls, and knew where to take my friend so he could see

them. I was also able to take him by the adjoining stream to see his first chestnut Bittern whose " boom " I heard morning and evening. A Pitta had called several times while we walked about so I rounded up the show by taking him quite close to where the bird skulked among bushes at the end of the garden, and he grew quite enthusiastic about birds when he saw the Pitta's Oxford and Cambridge blues. If you have a good ear for sound your bird watching and study can be doubly interesting. I will illustrate this :

On the afternoon of the 27th of October, 1956, while I was engaged in some interesting work, I heard some " strange " birds twittering and calling from one of the three Jaffna mango trees in this garden. I grabbed my binoculars and went out and focussed them on these birds. Imagine my delight when I discovered at once that they were Rosy Pastors ! Never before or since have I seen these birds, probably come from where Troy once stood. Wasn't that a fascinating discovery ? In a couple of minutes they flew from one coconut tree to another and to a second mango tree, from where they took off eastwards,—towards Hambantota,—flying over a wide stretch of paddy fields. I was too excited to count the number, but I believe there were eight to ten Rosy Pastors in the group. I can assure you my identification was quite correct. Yet I am *not* an expert or an ornithologist. As a matter of fact I am rather scared of that word, as it denotes so much scientific research, that the pure joy of bird watching and identification *must* be suffering somewhat.

Mr. A. E. Butler of Hambantota, (as keen a bird man as I am), and I saw on two occasions at the same spot a bird which must surely have been the Indian Great Grey Shrike. But Mr. W. W. A. Phillips, for whose judgment we have the greatest respect, said " nonsense " or words to that effect when I reported our " find " to him !

(*Vide* " Loris " of December, 1956, Correctly, Vol. 7, No. 5 and *not* 4 as it is numbered, p. 246. " Bird Tallies," by Lt.-Col. D. B. C. Robertson).

One day in this garden I heard an Indian Roller uttering his raucous note. Now I know there are no Rollers within fifty miles of this place at least. I was intrigued when I heard the call repeated again and again. So I had to investigate. And what did I find ?

A Black Drongo imitating a Roller ! Now the Black Drongo is found only in the North of Ceylon, where the Roller too is common. Also we know the Drongo to be an excellent mimic. But what was a Black Drongo doing in a typical Southern Province Low-Country Wet Zone Garden ? I'll tell you, and though you may not be inclined to believe me, it is true nevertheless. He was mating with a typical White-bellied or -vented Drongo who was sitting on a new clutch of eggs 25 feet up a cassia tree. I had been away in Colombo when this strange mating had occurred. A few mornings after the two chicks hatched out, two Southern Black Crows sat astride the nest, broke it up, and devoured the poor chicks in spite of my catapult, which broke on the first pulling. All this happened in March and April. By the end of May I found the Black Drongo had disappeared.

Other birds which have nested in this garden or just outside it, include—Red-vented and White-browed Bulbuls, Purple and Purple-rumped Sunbirds, Jerdon's Chloropses and Tickell's Flowerpeckers, Black-headed Orioles and Common Mynas, Magpies Robins (there are no Black-backed Robins here, I do not know why), Paradise Flycatchers and White-browed Fantail Flycatchers, Indian Pipits and Common Spotted Munias, White-breasted Waterhens and Chestnut Bitterns, Pond Herons, Stork-billed Kingfishers, Fan-tailed Warblers and Little Minivets—not forgetting the Drongos.

Towards the end of April this year, 1957, on a very rainy evening, I heard the whistling of many teal. My binoculars indicated many flights, totalling hundreds, coming out of the east and travelling W. N. W. That night

they returned, flying back eastwards. The flights were all at great height.

Here are some other interesting notes I have made, migrant season, 1956-57.

First snipe heard 6 p.m., 3rd September, 1956. First snipe seen 10 a.m., 18th September, 1956. First Blue-tailed Bee-eater heard at dawn 23rd September, 1956. Seen at 7 a.m. same day. First Brown Shrike heard 7 a.m., 24th September, 1956. First Brown Shrike seen 6 a.m., 27th September, 1956. First Pitta, heard 5.30 a.m., seen 6 a.m., on 23rd October, 1956. First large flight of about 300 teal seen 31st September, 1956, at dawn, flying very high. Small cobra seen in garden, 21st October, 1956. It was killed on front verandah, 22nd October, 1956. Large cobra killed by the well, 23rd October, 1956, a few hours after I saw the first Pitta!

With the Birds in Jamaica

By E. B. WIKRAMANAYAKE

IN January, 1956, the Council of the Commonwealth Parliamentary Union met in Jamaica and I had the good fortune to represent Ceylon on that Council. Our headquarters were the Mona Hotel in Linguanea, a couple of miles from Kingston. We were taken by car on tour round the Island from Kingston in the South, eastwards along the coast by way of Spanish Town and Mandeville to Montego Bay in the North and then brought back by train right across the Island. Jamaica is just about one-quarter of the size of Ceylon. It reminded me very strongly of this country in its climate, its scenery and its vegetation. A few miles out of Kingston and you were in the hills driving along elbow bends like the Ramboda Pass and looking out on the same sort of view except that there were no tea plantations. The streets were shaded by the Flamboyante (*Poinciana regia*) and the Tulip (*Spathodea companulata*), the latter being called the Flame of the Forest in Jamaica. Bougainvilleas of more colours than I have seen in Ceylon decorated every garden. There were mango trees too and soursops and other fruit trees found in Ceylon but the birds were strangers to me.

We stayed in Jamaica for a fortnight which is all too short a time to get to know the birds of a strange country. But there were some birds which one could not help noticing. The Mona Hotel which housed us was once the residence of a sugar planter. It stood on extensive grounds and close by was the Mona reservoir round which we took our morning constitutional. Quite a number of birds could be seen in the garden and round the reservoir. The bird that interested me most was a little green Humming bird called the Doctor bird. What fascinated me was its rapidity of movement which could hardly be described as flight. It was here one minute and gone the next so fast that eye could not follow it. It did not fly as, for example, our sunbird flies from flower to flower. It seemed to be propelled upwards, downwards, backwards and forwards like some high velocity projectile. The humming bird is a dainty little bird about the size of one's thumb but the cock has some long projecting tail feathers.

There were plenty of little birds in the garden and most little birds in Jamaica are called Quits. There were Grass Quits, Banana Quits and Blue Quits. Grass Quits are finches and resemble our Munias. There were two varieties, the Black-faced Grass Quit and the Yellow-faced Grass Quit and both were common in the garden and round the house. They are tame and confiding little birds and give one plenty of opportunity for observation. They replace the sparrow which is a bird I did not see anywhere in Jamaica. The Banana Quit corresponds to our Sunbird. It too has a

curved bill and feeds on small insects and the nectar of flowers.

Two fairly large black birds always obtruded themselves on one's notice but they belong to different families although they are very much alike in appearance. One is called the Ani. It reminded me of our Koel and, as a matter of fact, it also belongs to the Cuckoo family. But it did not have the sleek and distinguished appearance of the Koel. Its flight was heavy and awkward. Its beak appeared to be too big for its body. It is also called the Tick Bird from its habit of perching on the backs of cattle and picking ticks from their bodies. The other bird is called the Kling Kling. It is a species of grackle. It is a very common bird and very vocal.

The commonest bird in Jamaica is the Turkey Vulture universally known in the Island as the John Crow. There are no true Crows in Jamaica so that the country is free from two of the pests that are found in Ceylon, viz., the crow and the sparrow. The Vulture is an ugly bird with a bare neck. It has a powerful flight and can be seen anywhere in Jamaica circling round and scanning the ground for something to eat. Nothing comes amiss to it and like our crow it is a great scavenger.

Another fairly common bird was the Mocking Bird which somehow put me in mind of our magpie robin. In size it is something between a myna and bulbul with a fairly longish tail. It is a greyish bird with a large white patch on the wings which is very noticeable in flight. It has a habit of taking a few steps on the lawn and then stopping to raise both wings over its back showing the large white wing patches just as our magpie robin jerks its tail over its back. I was told that it is a very good songster though I did not hear it sing probably because it always sings in the night. As its name indicates it is also a very good mimic. Another bird that I frequently saw in the garden was the Saffron Finch, something like our weaver bird with much more yellow in its colouring. Also a number of white Herons like our egrets but I could not get close enough to them to observe the colour of the legs and bill which is the only means of distinguishing between the various kinds. In the reservoir I found the Coot and the Killdeer Plover. The latter is something like our lapwing. Like this bird too it is very noisy and calls out *Kill-dee, Kill-dee.*

The birds I have described are those which allowed me to get close enough to them to observe their shape and colour. There were others which for lack of the aid of binoculars I could not identify. Jamaica, however, is not as rich in bird life as Ceylon. There are, I gathered, only about two hundred different varieties found there including migrants. But the pleasure it gave me to watch these strange birds and observe their habits and idiosyncrasies is something of which not even time can rob me.

THE THRUSH

My father and I through a London square
Were walking at dusk when he suddenly stopped,
Lifting his hand excitedly : " Hush ! "
And as we listened, the traffic dropped
Away into silence, the evening air
Was magical with the song of a thrush.

I looked at my father : life's troubles and fears
Had gone from his face, his eyes shone with joy
At the beautiful April notes of that bird,
And I, too, was touched by wonder and tears
As I saw how the country heart of a boy
Lived in him still after seventy years.

DOUGLAS GIBSON.

Fish Breeding in the Upper Hills

By KENNETH MORFORD

DURING long residence in Dimbula, at an elevation of 3,000 to 4,000 feet I have been struck by the absence of good edible fish in the many streams and rivers at this elevation. (Above 4,000 feet the trout reigns supreme, of course).

Three years ago the Fisheries Department, through their very live Deputy Director, sent up a few cans of fish—*Tilapia mossambica* (S. Japan Korali), Gourami—*Osphrenemus gorami* (S. Seppeli, gurami) and Chinese Carp (*Ctenopharyngodon idellus*) S. ? . This with a view to their being placed in ponds on the estate where they could breed, and be released from time to time into the tributaries and main stream of the Kotmale Oya. The Kotmale Oya after passing over the St. Clair Falls at a height of 3,900 feet, descends, rapidly by a series of small rapids, intersected with large deep pools, until it joins the Mahaweli Ganga at Ulapane, being joined on the way by many beautiful, rushing mountain torrents, such as the Pundal Oya, Kirindi Oya, etc. Between the tea areas of Dimbula and Pussellawa it flows past many of the so-called "backward" Kotmale villages, which, lying in the depths of huge valleys are devoid of roads and rely on steep stepped footpaths for access. These villages offer but scanty living for their industrious peasants; frequent land slips, and the very nature of the terrain, make any possibility of an extra source of food supply a real boon to these areas. If fish will thrive in these streams then the additional food supply and source of income is there.

On arrival the fish were placed in two ponds on the estate. The first, of about quarter acre, is fed by a perennial stream, is about 4 to 5 feet deep, with a good silt bottom, and surrounded by rank but healthy Napier grass. Some of this is allowed to float over the water thus providing food for the fish, and nesting places and hiding for them. All three species of fish enjoy the grass, and can be seen biting and tugging it from the bank. The other dam is much smaller, really only a swimming pool; this at first did well with Tilapia, but later difficulty was found in keeping it clear of falling gum leaves which were toxic to the fish. This pond was later given up, and the fish released into the Taprobane Oya, a tributary of the Kotmale Oya. Checks in this stream at intervals have shown that the fish have moved down stream to the main river.

Disease so far has not been a worry, but pests have been many. It was only a few days after stocking that the Kingfishers showed that they were aware of the source for their larder. They were to be seen sitting on the branches of overhanging trees, and on rocks—both the Common Kingfisher (what a beautiful little bird it is) *Alcedo althis taprobane*, and the White-breasted Kingfisher—*Halcyon smyrnensis fusca*. They must have accounted for very many small fish. I was puzzled for some time by some mysterious scars I found on the larger carp, and arrived at the conclusion that *Ketupa zeylonensis* (Fish Owl) was possibly responsible, but despite careful watching none were found; however, my watcher eventually saw a Serpent Eagle (*Spilornis cheela spilogaster*) diving into the pool and endeavouring to seize a fish with its talons. I myself saw the bird thereafter, and it seemed that it must have tried to seize the carp which are fond of basking with their fins above water, but without realising the great weight of these fish, at that time five pounds and more. I reported this to Mr. W. W. A. Phillips, F.Z.S., who said he had never heard of this happening before. I wonder if any reader has had similar experiences?

Later we had trouble with Otters, and two pairs have been shot in the pond so far. The only other "pest" is the water snake, but what damage they do I am unable to say. The water abounds in frogs which would provide a suitable diet. As regards poachers, we have found the children most interested in the fish,

and they feed them daily, and would be quick to spot any missing, so that we feel they are safe under their watchfulness. Although there is an abundance of food in the pond, directly the children approach the bank the fish come swimming up in a shoal, seizing the bread or rice thrown.

Now for results. After three years we regret that we have not been able to report any breeding by the Chinese Carp, this bears out the findings of the Fisheries Department. We had hoped that the cold spells and sudden spates might provide ideal conditions but this has evidently not been so. The carp now run from 10 to 20 lbs. in weight. The Gurami have done quite well and are breeding. The fish run in the main just below a pound. The Tilapia have proved regular and prolific breeders from the first, and there are usually plenty of fry to be found. Many have been removed to other ponds and to the rivers. Doubtless the protection given to the young in the mouths of their mothers preserves them from many depredators. The Tilapia run from half to three-quarters of a pound—a pretty fish.

A recent netting revealed that in addition to these three species, several varieties of Carplet or Barb have found their way into the pond (puntius species), and also the Smooth-breasted snake head (*Channa orientalis*) Sinh. Hitha massa. How they got there is a mystery.

In the main Kotmale Oya results are less certain. Undoubtedly there are now plenty of fish in all the larger pools, and they may be seen rising frequently. Unfortunately despite the most careful watching several poachers have been seen, and two cases of dynamiting. Although we managed to disturb the culprits and get the fish, we were unable to prove that these men had actually done the dynamiting, and so they got off. The fish we took were gourami, mahseer, tilapia, and all from half to two pounds in weight. There have also been several instances of poisoning by sinking toxic bushes in the river and pools. Actual fishing with rod and line has produced a few small mahseer, but nothing else, except several broken traces from larger fish. Inquiries in the village reveal that a good many fish are caught of several varieties, but so far only snake heads, mahseer (small) and a fish of the black spot variety have been shown to me. Most of this fishing is by net. The mahseer here are a puzzle to me, as for years there have been none, and with the high St. Clair Falls above, and a fairly steep Meddecombra Fall below, I thought it would not have been possible for the fish to make their way up, but the two very low water years of 1955 and 1956 may be responsible.

One fact emerges very definitely and that is carp, gourami, tilapia and other small fish are able to live together in confined waters provided food is ample. If food were deficient possibly the larger fish would tend to prey on the alevins or fry. The mahseer is, of course, voracious, and I have no doubt many a tilapia has passed down its gorge. In the main river the tilapia appear to haunt the stiller back waters with grass edges, and not the deep pools.

In conclusion, the experiment, which continues, is not without its lighter moments, as for instance, when a sudden spate sent many of the largest carp scurrying down a forbidden watercourse. Labourers clad in span cloths rushed after them, seized them carefully in sacking and it was a scene reminiscent of fabled mermaids to see these big fish with a bleary eye over one shoulder, and a flapping tail under the other arm of the labourers as they were returned to their pool.

FISH BREEDING FOR PLEASURE AND PROFIT

By A. FERNANDO
in *The Ceylon Forester*

FISH breeding is not only an absorbing pastime, but can also be a paying concern. As food, fish is both palatable and nourishing.

The best fish for eating, which can be raised in ponds, are Giant Gouramis (*Osphronemus goramy*) which have been introduced from Java to Ceylon long ago. They can be purchased in small sizes (when available) from the Fisheries Department. They are found wild in the Mahaweliganga and the fingerlings are netted in vast numbers in the villus off Polonnaruwa and Tamankaduwa areas. I consider these the best fish to keep, because they eat only vegetable matter and thus can easily be raised in ponds and pools.

The giant gourami grows to over 5 lbs. in weight. The rate of growth depends on the area in which it is kept and how well it is fed. Being a fish that breathes air direct from the atmosphere, it can be overcrowded and will live in very foul water. It feeds on leaves like kankun, lettuce, cabbage, etc., and is very fond of the fruits of the wild fig (Attika, S.).

The bigger the pool or pond for the gourami, the better it is for its growth. They need a certain amount of shade, and the water need not be very deep, but not shallower than 3 feet. I would suggest a stocking rate of say 500 fingerlings (up to 5 in. long) per acre of pond, and liberal feeds, of kankun, bread, cabbage leaves or soft food like attika, breadfruit and boiled rice are taken with avidity.

In a pond like this the rate of growth from the fingerling stage would be about 6 in., ie., 5 to 8 ozs. in the first year. They start mating and breeding in the second year. To breed them one must have a very large area of water.

I have observed that the gouramis in the lakes where fishing is prohibited, do not grow to large sizes. This is attributed to the fact that they get too numerous and compete for food. Therefore, I am in favour of the issue of permits to enthusiastic anglers on the recovery of a nominal fee.

Angling for gouramis is great sport. They do not take artificial bait, but will readily take bread, attika or any food they are accustomed to ; boiled jak or kurumba is good bait if they are used to eating it. Use a fairly small hook, because its mouth is small, compared with its size and a float about 2 or 3 feet above hook. Biggest size gouramis can be caught with rod and reel using line with breaking strain of about 4 lbs.

Much propaganda has to be done to encourage fish breeding, by means of lectures, issue of instructive leaflets, etc. Illegal methods of fishing, such as, dynamiting, poisoning, small mesh netting, and kraal trapping of fish must also be stopped.

PUP AND COBRA

The puppy dog belonging to a Bolana resident was playing, when a large cobra approached it.

The little dog was not frightened. It barked and the cobra raised its hood. Rather than wait to be attacked, the puppy lunged at the cobra's neck with its jaws. But the cobra's blow was swifter. The puppy squealed but its jaws snapped immediately after on the cobra's spotted hood.

Nor did he stop there. In his dying agony he kept on at it, until there was no hood—only the threshing body of the serpent.

Soon afterwards both were dead.

Fishing at the Mouth of the Kal Aru

By ERLSON MODDER

THE mouth of the Kal aru—commonly known as Salapa aru—is situated about 18 miles north of Trincomalee. To get here one has to cross two ferries—the first at Irrakkakandi (The Admiralty since the time of this article have built a beautiful bridge here), and the second at Salapa aru. A little further on is the delightful resthouse at Kuchchaveli.

The expert tells us that April is not a very good season for fishing here. But with the usual Easter holidays on we are determined to make the best of it. The first day we had quite a party—and a number of amateur rods were lashing the water. Jackie was the first to kill a fish. At about 9 p.m. the first night he had the thrill of landing a 8½ lb. Barracuda (*Sphyraena jello*) using a small rod and reel, and a home made plug. Needless to say he was very proud of his catch. And there were no more fish caught that night.

We were there again a few nights later. We had tried all the artificial lures we had amongst us—spoons of all sizes, plugs and feathers, and although the fish were feeding all over they were not taking our bait. There were the regular flops of the estuary perch and the thunderous splashes of the barracuda, and they were not being fooled.

The " professionals " too were out in strength with their hand lines (Sinh. *yotha*), which clearly indicated that it was an ideal time for fishing. Even they hadn't any luck, although they were using live prawns as bait.

There were about ten of us fishing—three of us with rod and reel, and the rest the " locals " with their " yothas," And only one fish had been landed. A " professional " had got a 8-lb. Thread fin (Sinh. *Kalava* ; Tamil, *Kalai*).

Live prawns are in very short supply in this area, and the urchins were continuing their search for them at the water's edge with their hand nets, and the quaint kerosine lights, which looked like old teapots.

Seeing that the fish were not having anything to do with our artificial lures—I thought I would switch on to a live prawn myself. The urchins, however, were not very willing to part with a single of the few they had caught, for, as they rightly argued, a live prawn may mean Rs. 15 or Rs. 20 to them. Anyway, I was able to coax them to part with one for the modest sum of fifty cents, and had soon hooked it on to a large hook and cast it out into the water. I was using nylon line of 12 lb. breaking strain, my rod was a one-piece single-handed steel rod, and my reel a Pfleuger Skilcast. I also used a short wire trace with a swivel between the line and the hook.

The live prawn had hardly hit the water, when I felt a violent jerk on my rod, and I soon had a fish on. Jock and A. C. hearing my reel screeching were by me in a matter of seconds, and there was the veteran Jock giving me all the advice I needed how to play the fish, and with orders of " keep your rod up," " keep your line taut," " reel in," etc., I was very thrilled to land a 4½ lb. Estuary Perch (*Calcarifer lates*), Sinh. Modha, Tamil, Koduva. And as A.C. afterwards remarked he was positive he saw me chew the lighted cigarette I had in my mouth in all the excitement !

In a short while we were at it again, and Jock and A.C. had changed their artificial lures for prawns !

I had hardly cast out my second prawn when there was a tug on my rod again, and I was on a fish—but not for long ; on reeling in I found my line slack—and the prawn gone. I had similar experiences with the next two prawns I managed to get, and it was only when I later read J. A. R. Grenier's most interesting book " Tales of Fish " that I realised how I had lost these fish. As he says writing about the Estuary Perch, " This fish is an adept at filching bait. It will take a prawn off a hook so easily that the angler will experience only the slightest touch ; all he feels is as if someone has given his shirt sleeve a

gentle tug. 'Pick pocket' he was named by an angler on whom a *Modha* practised this cautious dodge more than once. It can take a live *Godaya* off a hook just as adroitly. Another bewildering habit it has is to move up fast in the direction of the unwary angler causing the line to go slack. One usually loses the fish when this happens as the hook gets dislodged."

When we returned to Trincomalee the ladies and the children were asleep, but they had to be put up to show them the only fish we had landed for the few days we had been fishing.

The following evening at sunset found us again at Salapa aru, and we were determined to try nothing else but live prawns as bait. Prawns were scarce that day, and there were not many boys out catching them. So rather than watch and wait we tried our artificial lures hoping the fish would like a change in diet. About 8.30 p.m. (who said you didn't need patience in fishing?) an urchin offered us a live prawn; so both A.C. and I said "Seniors first," and gave Jock the prawn—and he hadn't to be persuaded to take it.

I was fishing a couple of yards away from him and in a few minutes I heard him say "I'm on a fish" . . . I immediately stopped fishing and watched Jock fight that fish with the touch of the expert he was. At one stage the tip of his rod was almost touching the handle, and while he was reeling in and letting the fish take out line he educated me in a language I presume only the experienced fisherman can use. I am sure even the fish he had hooked must have blushed to hear all Jock had to say. In the meantime the "professionals" sensing something big were round Jock advising him what to do, and in their excitement were even trying to interfere with his line. But the abuse Jock hurled at them made them all stand on the shore and watch. In the meantime I was asked to go and bring the torch and the gaff, and in what seemed hours, when the fish was thoroughly spent, and about two feet from the shore, he gaffed it and pulled it on the shore, and was it worth while?

I should certainly think so. It was an Estuary Perch and turned the scale at 26 lb. Jock was using a Shakespeare double-handed rod, a Shakespeare Service reel, and nylon line with a breaking strain of 14 lb.

Needless to say a fish of this size called for celebration; so we packed up and proceeded to Trincomalee, wrote our families and had a celebration worthy of the fish!

A JUNGLE RIVER

What is the beauty of a jungle stream?
Pattern of interlacing leaf and vine
In blended greens. Festooned lianas twine
Among the Kumbuk trees, so tall they seem
To reach arms to the sky. Gold sun rays gleam
And glitter on rippling shallows, softly shine
On still dark pools. Gay butterflies combine
With bright bird-plumage to complete the scheme.

What is the music of this tranquil place?
A symphony of song, the lullaby
Of wind and whispering leaves: the perfect grace
Of shama's liquid warbling, while on high
The barbet calls: insistent, endless bass
Of gently murmuring water flowing by.

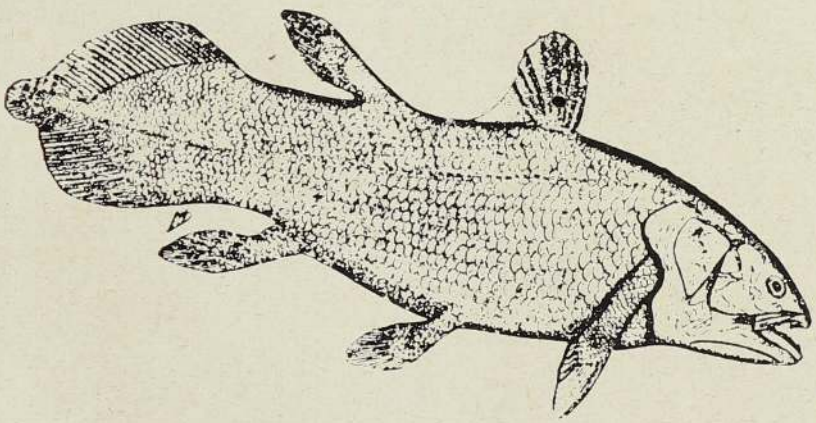
F.N.B.

BIG FISH FROM THE PAST

From "Readers News" by J. L. B. SMITH, *author of "Old Fourlegs" (Longmans).*

MOST people today accept the fact that numbers of earlier kinds of plants and animals that once flourished have become extinct, and that it is probable that their exact like will never be seen again, but many biologists have cherished the hope that some creature thought long extinct may have survived, somewhere. Just imagine the sensation if one of the huge dinosaurs were to be found still alive in some remote jungle! Something like this has actually happened in our time.

Most people have heard of the coelacanth and something of its wonderful story. It is one of the earliest types of fish, known from numerous fossils to have appeared more than 300 million years ago. Coelacanths spread all over the



world, and lived for some 250 million years, a remarkable record but still more so because in that time they hardly changed, and the last coelacanths were still much like the first. As no living coelacanth had ever been found and the fossil record ceased about 60 million years ago it was believed that all must have become extinct about that time.

Just before Christmas 1938 a trawler working near East London, South Africa, pulled up from 40 fathoms' depth a mixed catch in which was a peculiar five-foot-long, bluish fish. The captain decided to keep it for the museum and when he docked telephoned the curator, Miss Courtenay-Latimer. She came, was puzzled by the fish, took it to the museum, and attempted to classify it. That she failed is no wonder. So she sent brief notes and a sketch to me as the South African scientist who assisted their Museum. Owing to Christmas delays the letter did not reach me for ten days, before when Miss Latimer had for safety had the fish mounted. When I got the letter I was faced with a terrible poser. All experts said coelacanths were extinct, but the evidence before me said: "Coelacanth!"

When I saw the mounted fish I knew it was a coelacanth, and said so. This statement created a worldwide sensation, for nobody could help being excited by this incredible discovery. Everyone wanted to know where coelacanths lived and why they had not been found before. Most scientists said that this fantastic relic had been obscurely existing in the depths of the sea, but I could not accept this. From all the evidence I deduced that coelacanths would likely be found somewhere on the East African coast. Owing to the circumstances of its discovery most of the insides of this particular specimen had been lost in mounting, so there was a double reason for finding their home.

Alone in my views about this matter, my wife and I set out to search the vast East African region. With only slender resources, our chief weapon was a leaflet in English, French, and Portuguese, offering a reward, and giving a picture of the coelacanth. This was sent to all parts of East Africa and to Madagascar. For fourteen long years we went further and further afield, always searching. At Zanzibar in 1952 we gave some of the leaflets to a trader, Eric Hunt, whose beat included the Comores, islands which I had long wished to visit. On 24th December, 1952, when we were returning from an expedition, at Durban we got a cable

from Hunt to say he had a coelacanth, at the Comores, " Please come and fetch it."

Imagine my predicament ; the day before Christmas, the Comores 2,000 miles away, no air service, no refrigeration. Would the fish rot ? Was it a coelacanth ? How all this was overcome is told in my book, which is no scientific treatise, but an account of detective work in science. *Old Fourlegs* gives an intimate picture of all the purely human factors which lay behind one of the most important scientific discoveries of our time.

In sequel, the Comores, islands in French territory, lying between Madagascar and Mozambique, have proved the home of the coelacanth, but the French soon closed their waters to foreign scientists. During the three years following the discovery the French announced the capture of eleven more coelacanths, all by native fishermen, induced to hunt them by a big reward. All were sent to Paris. The results of the study of complete coelacanths published by the French are interesting but not startling. I now believe that there can be only a few surviving specimens. In *The Times* in 1955 I deprecated the slaughter of more coelacanths than is strictly necessary for study, and advocated instead search for a live specimen, which had been my aim. Since then there has been a complete absence of news about further catches of these rarest " living fossils " from French sources.

Last Visits to Two National Parks

By R. P. GADDUM

A letter from Reg Gaddum to the Editor that accompanied the two articles that follow said: "You may possibly care to take extracts which you consider are likely to prove of interest out of the attached accounts of recent visits to the National Parks."

This we have done. We are sorry to have to record the death shortly afterwards of the great sportsman, nature lover and valued contributor to " Loris."

YALA—JANUARY, 1957

WE reached Tissamaharama—167 miles from Colombo—in 4 hours and 50 minutes.

It was only then that we appreciated how lucky we had been in not starting our holiday on the previous day, as heavy rain had been experienced on the 16th and 17th and, as a result, the road to and beyond Palatupana had been quite impassable for the 48 hours prior to our arrival—As it was, the party which was in occupation of the Yala bungalow had been marooned there for three days and we were compelled to take up temporary quarters at Buttuwa—where we spent the night.

On our way in we saw a great many deer, pig and peafowl—two of the latter were " displaying " and one in particular, near Wilapaluwewa, had a magnificent tail, for standing in the middle of the road his feathered " fan " stretched to the grass verge and a little beyond on either side so that the overall spread must have been in the region of 8′ 0″.

On reaching the bungalow a little before six, we had only just finished unpacking when splashing noises in a nearby pool were found to be caused by an elephant having a bath, but after a short time he melted into the dusk. After dinner peace prevailed until at about 11 p.m. my wife woke me and said, " Look." Half asleep as I was, my first reaction was that I was having a nightmare, for against the moon-

light which was quite bright I saw an apparition which looked like the silhouette of a large elephant's head gazing at me with his ears cocked, about 20 yards away—I somewhat naturally shut my eyes tight and turned over, only to realise I was not seeing things when I opened them again to find the elephant still there and in the same position.

We all watched him for the best part of half an hour as, after his inspection, he started to feed and grazed his way out of sight still munching thoughtfully. I paced out the distance which represented the closest point to which he came while we were sleeping, and found it was just under nine yards from the foot of my bed, where his large footprints could be clearly seen.

It was a lovely clear morning on the 19th and, as usual, a lot of game could be seen on the Buttuwa Plain from the vantage point of the rock in front of the bungalow. Deer in particular were in great abundance, and several hundred were grazing or just lying down, while there were quite a number of sambhur in the coarse grass by the seashore, in the direction of Patnagala.

After breakfast we packed the Volkswagen, "Khombi," and set out for Yala in the hope that the road would be passable, which it was, and *en route* we passed the party which had been marooned there for two days longer than they had intended. As a result they ran short of food and supplies for this period. Still, they apparently had a pleasant time and had seen a bear demolishing an ant-hill, and had nearly run into the hindquarters of a large elephant in the dusk, as well as seeing the usual run of game.

Having settled in at the Yala Bungalow, "Tiny" and I left for Buttuwa after lunch to collect two more camp beds, and on the way there, were fortunate enough to see an elephant on the road, just before we reached the Buttuwa Plain.

In the evening we went for a drive through the Park to Wilapaluwewa and back, seeing first two elephants—both rather small, between Gonalabbe and Buttuwa—and then a leopard.

After passing Buttuwa, "Tiny" nearly drove into an elephant on the side of the road, which none of us saw until we were on it, as we were all blinded by the sun. Still, we were past it before any of us realised what had happened, so all was well.

Returning, half an hour later, we saw the same wretched animal still grazing by the edge of the road, so waited hopefully for it to move until it was practically dark. Finally we had to take a chance and pass it, much to the consternation of our watcher, Subasinghe, who seemed to be extremely nervous, for he said it was not a well-behaved beast and could be readily identified as it had no hair on its tail. At one point "D" suggested we should try and get it to move by sounding the horn, to which Subasinghe retorted: "Peep, peep, Bohoma narakai," which in Sinhalese means: "To blow the horn would be a *very* bad thing to do."

On the morning of Sunday the 20th, we set out again on a short tour of the Park after a cool but somewhat disturbed night, as peafowl kept us awake by calling, which is often their practice when it is bright moonlight—Apart from seeing four elephants crossing the road near the Buttuwa area, and one in the distance at Uraniya, as well as plenty of deer, pig, buffalo, and peafowl, we saw nothing of outstanding interest except a couple of black-necked storks with their sealing wax red legs, and three spoonbills. The commoner birds, such as painted storks, egrets of various kinds, and both red and yellow wattled lapwings were plentiful, as were sandpipers and black-winged stilts.

Shortly before lunch, "Win," who was looking out of one of the bungalow windows, said: "Elephant," and sure enough there was a large jumbo having a drink on the Strict Natural Reserve side of the Menik Ganga.

After he had slaked his thirst, he crossed the river into the National Park, making

light of quite a steep bank and the fact that more than half of his body was submerged at the deepest part; he then strolled across the Yala Plain and into the strip of jungle which lies between this open area and the sea.

Going on to Vependeniya we saw a sight which none of us will ever forget, for on top of a huge boulder which juts out from a rocky outcrop rising some eighty feet or more above the road, was a magnificent leopard lying full length with its two front paws actually hanging loosely in space over the sheer drop to the ground. It was a picture of completely relaxed arrogance in its sinuous grace and beauty. He took not the slightest notice of the " Khombi " and its occupants but stared straight at us with his huge luminous eyes, his body and tail stretched out on the stony platform which constituted his vantage point, though from time to time his gaze would wander to a herd of deer about 500 yards away which, I am sure, eventually supplied his supper. After ten minutes or so he got up slowly and disappeared over the top of his observation post and vanished from our view.

After driving on a little in the direction of Wilapaluwewa we decided it was time to turn back and though the dusk was deepening as we passed the rock, we again saw the silhouette of the leopard, who had now taken up his position on the other side of his original eyrie—for this best describes his rocky couch where, we were told, he is often seen.

Further excitement still awaited us, for just as we reached the Yala Plain, three elephants were seen on the road and it was almost dark before they moved into the jungle and enabled us to pass.

We again had a very disturbed night, for apart from jungle noises, an elephant wandered into the compound round the bungalow and fed there for some hours. His gastronomic processes were by no means silent, and he kept us awake breaking down branches and snapping twigs. He looked very large in the chequered shade caused by the moon. Between about 2 a.m. and dawn I heard leopard, deer, sambhur, monkeys, pig, buffalo, jackals and, of course, plenty of peafowl.

After lunch we had a wonderful time feeding a red monkey—a bold and enterprising little animal who was reported to have gone off with a visitor's camera some three weeks previously, which it eventually dropped from the top of a tamarind tree when chased.

The monkey's technique in removing three large slices of papaw at the same time was almost human, for it stuffed one piece into the pouches on either side of its mouth and went off on its hind legs with the other two slices of papaw under each arm. How he got outside this vast supply of food, in addition to a tomato and a carrot, will always remain a mystery, and I only hope he was none the worse for his gluttony, as the last view we had of him was sitting on a branch over the river looking far from well, rather like a tightly inflated rugger ball.

We started out on our evening excursion a little before 3.30 and first went to Welmalkema, where we heard an elephant give a short, sharp trumpet quite close to the path. After climbing the large rock where the jungle track ends, we were able to see two feeding in the jungle below us, and heard another which was hidden. We were just considering how we could get a little closer when, over a large rock in our immediate foreground, ambled a small cow elephant with a very young calf which she guided down the steep and rugged track to join her companions and eventually we saw, in all, a herd of six and watched them for the best part of an hour until they disappeared into heavier jungle still feeding peacefully and making those rumbling noises which are so characteristic of these animals, and occasionally trumpeting when it was felt that one of the younger members of the party required restraining.

Next we went to Uraniya, where we saw a small herd of four elephants including two calves near the edge of the open area, and yet

another four of which three were bathing, in the Uraniya tank.

The bathing party, probably mixed, was however rudely disturbed by a large and truculent elephant who arrived on the scene in an extremely bad temper, so much so, in fact, that the three bathers rapidly left the water and scattered in the jungle leaving the new arrival in sole possession.

One of the bathing party walked up the Uraniya-Buttuwa corridor in front of the car until it eventually left the path to find a more adequate hiding place from the "wrath to come," who, I think, must have been a school master who had, at last, found three truant pupils.

On our way back to Yala, a small but extremely clearly marked leopard crossed our path at the point where the Pantagala track leaves the main road and, on reaching some light grass about twenty yards away, it lay down and watched us quite unfrightened and absolutely at home.

Just before we got back Raman, the cook, had seen another leopard walk past the gate into the bungalow compound and then wander across the Yala Plain, so there must have been quite a number about.

A wonderful trip, and we were all extremely lucky to see no less than 33 elephants, including six small calves and three leopards (or four with Raman's included) during the three full days we spent in the Park.

MARADANMADUWA—MARCH, 1957

FOUR of us reached Wilpattu in an afternoon of March. After a quick cup of tea we collected our guide, Malhamy, and drove round all the Wilas and Villus which are accessible by car seeing a great variety of Ceylon's fauna and bird life, including the three commoner species of deer (sambhur, spotted deer and barking deer), buffalo, pig, a couple of jackals, two hare, several crocodiles and talagoyas (land monitors), peafowl, jungle fowl, four types of pigeons, plenty of Malabar pied hornbills and a wealth of other bird life.

The thrill of the evening, however, was provided by a leopard walking up the road, which we saw less than ten minutes after leaving the Park bungalow—unfortunately he heard us coming almost immediately and after turning round and satisfying himself that our Volkswagen "Kombi" was not one of his usual jungle compatriots, he walked slowly into the jungle near a clearing which runs along the edge of the road, called Ibawala. The leopard was most unusual in that it was almost black, for melanism is rare in Ceylon and none of us had ever seen one of such a dark colour before.

Later in the evening, at a little after six, we came across two bears, a mother and her twelve-month-old cub, on the track between Thimbiriwila and Borupanwila and were able to watch them until it got so dark we had to move on. I have twice previously met bears on this half-mile connecting link between the two Wilas and have also seen a great number of their tracks as well as leopard pug marks on this short stretch. It is a "likely" road along which to travel between 5 p.m. and 6.30 p.m.

The jungle is particularly beautiful in the morning and for this reason alone it is worth getting out early, but unfortunately it is a bad time to see game and we came across very little indeed except for three jackals at Nelun Wila and some crocodiles at Kokkari.

We set out on our evening tour which, too, was uneventful (except for the fact that we saw a great many spotted deer) until we were going round Kokkari when Win suddenly exclaimed, "A bear—I saw it go into that bush."

Driving slowly round it, peering into its

dark centre, we eventually discerned a jet black object which proved to be the bear which then broke cover on the opposite side. It was a fine sight, particularly as it stopped and had a good look at us just before it reached heavy cover.

Next morning, except for a couple of sambhur and several small herds of deer, we saw nothing unusual until just before we reached the open space round Nelum Wila, when Win's remark : " Another deer " did not rouse us from our blasé apathy which was a pity for on reaching the point on the road from which she had seen it jump away with a large bound we saw in the undergrowth the body of a freshly killed sambhur doe, which could not have been dead for more than five minutes at the most, for the killer had only just started to disembowel its victim, which was still as warm as if it had been alive—Win's " Deer " had, of course, been the leopard and it served us all right for not paying more attention.

The sambhur doe was quite exceptionally large and must have presented quite a problem, whilst the absence of any signs of a struggle indicated it had been lying up in the thicket where it met its death.

Near Kanjuram Villu we saw, on rounding a gentle curve, two large leopards, one standing and the other lying in the middle of the road about fifty yards or so in front of our jeep.

After a surprised look, one of them vanished into the jungle on our left while the other, a male, melted into the heavy scrub on the right of the road and, pressing on, we were able to watch him through the intervening undergrowth for five minutes, before he decided he would rejoin his mate by re-crossing the track about twenty yards behind our vehicle. Most of the time we were watching him he was sitting on his haunches like a large cat, and kept on gazing at the treetops, for what reason I cannot guess.

On the morning of the 24th we decided to go out late, just for the hell of it, our reasoning being that as leopard and bear had been conspicuous by their absence on the two previous mornings when we had gone out at the " right " time, it would be as well to experiment by going out at the " wrong " time.

Our results only partially vindicated this philosophy, for just as we were approaching the Kumbuk Villu hut, after a relatively blank morning, a large leopard crossed the road ahead of the " Kombi," making the sixth seen on this particular visit.

The previous day's " kill," by the way, had by now been dragged by the killer thirty yards further into the jungle, where it had been placed in a dense thicket. It had also been half consumed.

The Villus were exceptionally beautiful this particular morning as there were some lovely fleecy white clouds in the pale blue sky. They in turn were reflected with the green line of jungle trees by the water.

Shortly before lunch Doreen called " Snake," and there, sure enough, was a rat snake, about four feet long, gliding through the general-purpose room in which everything was kept and where we all changed when modesty demanded that this chore should not be done in the open verandah. After a chase the frightened serpent decided to try the dining room, from where it was pursued into the empty spare room, before it was finally evicted by Banda, the bungalow keeper, who employed the original method of throwing a small jam tin full of kerosine at the trespasser. One could not help speculating as to how awkward a situation would have been created had the visitor been a cobra, for it is equally fond of rats, and the visitation had taken place at night !

One feature worth mentioning is the behaviour of crocodiles—first at Kummutu Villu, where a fishing saurian had splashed about so much that all the deer feeding in the vicinity had kept on calling, as they do when they scent or see a leopard, and secondly, at Kokkare Villu where we noticed one crocodile which kept on sticking its head right out of the water at an angle of about thirty degrees so

as to facilitate the swallowing of whatever it was eating. I suspect that frogs were its prey, for it was in water only just deep enough to conceal its body and back.

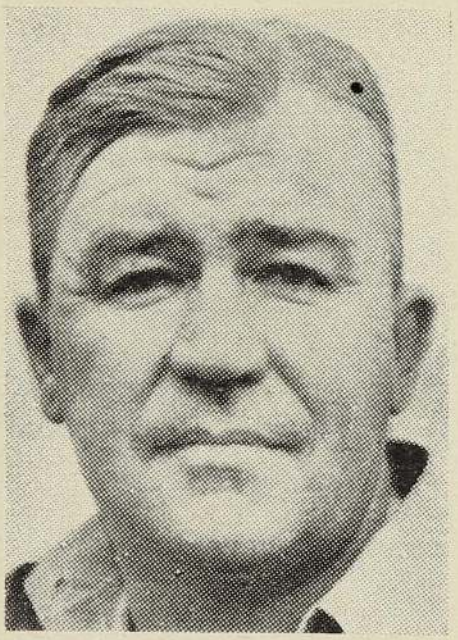
On getting back to Maradanmaduwa we were still re-capping our experiences when the characteristic "sawing" call of a hunting leopard, not more than three or four hundred yards from the bungalow in the direction of the tank, brought our conversation to an abrupt halt—so much so that you could have heard a pin drop, for it sounded very eerie coming out of the dark.

At about four in the morning I happened to be awake and heard an elephant bathing in the tank. It was obviously having a wonderful time and sounded as if it was flinging literally buckets of water over its torso.

And so goodbye to Wilpattu and my many friends there.

Finally, a word of caution to visitors early in the year. *Always* take something warm like a pullover *and* a blanket. Don't laugh at this suggestion when you know Wilpattu is one of the hottest places in Ceylon for, as a matter of interest, the temperature early in February when I was there ranged from 60 F. to 90 F. during the twenty-four hours, and during the stay dealt with in this short account it rose from 62 F. at 6 a.m. to 98 F. in the shade at 2 p.m. Not having practised what I preach I have reaped my reward—a shocking cold!

R. P. GADDUM



Mr. R. P. Gaddum

R. P. GADDUM, who has died after an operation in England had a Ceylon passport, and liked to think of himself as a Ceylonese rather than an Englishman.

He was born on his father's estate, Ambalawa, Gampola, in 1898, and lived all his life in Ceylon, save for short holidays in the United Kingdom. His father, G. P. Gaddum, had come out to this country eight years before R. P. Gaddum was born, but the family's connection with Ceylon, on his mother's side, dates back to the eighteenth century—to 1790, to be precise, when a colonist by the name of Rabenal arrived to take a job under the Dutch. The Rabenals married into the Waring family from whom, on the female side, Mr. R. P. Gaddum was a direct descendant.

Mr. Gaddum himself married a girl who had been born in Ceylon, Miss Doreen Burmester. He began earning his living at the age of 15, as a "creeper" under his father, and was a planter until 1939, when he joined the Board of Messrs. Aitken, Spence & Co., Ltd.

A keen sportsman, Mr. Gaddum excelled in rugger, cricket and tennis, and, partnered by his brother-in-law, G. D. H. Alston, won our men's doubles title three years in succession in the early twenties.

During World War I, he was a police officer under Herbert Dowbiggin, and in World

War II, he served, here in Ceylon, as a Squadron Leader in the R.A.F.

Mr. Gaddum had a brief encounter with politics, becoming an Appointed Member of Parliament in April, 1956. He resigned eight months later, pleading ill-health.

A gentle, sincere and very honourable man, R. P. Gaddum had many friends of all communities. I have yet to meet a man who did not like him immensely.

Morning Times.

An Ambition Achieved

By PATSY NORRIS

AT sometime or other in life, I think, everyone has an ambition which they would like to achieve, however small it may be, and when at last this occurs the thrill of achievement, to oneself, is terrific. My small ambition was to get some really good " shots " on my cine of leopard, that lithe beauty of our jungles which is so illusive to photograph, and yet so wonderfully photogenic.

Many jungle trips have we done, some of which were successful for photography, others not so ; but our last one surpassed all others for what we saw and were able to film, with, I am glad to say, wonderful success.

We were on a four-day trip in July and spent three of our four days sitting only at one water-hole, where there were tracks of everything coming to drink.

Driving out from camp on our first morning to our selected water-hole, we came upon a herd of five elephants which were moving across an open glade. One of them was a tusker, which gave us a wonderful thrill, although they were too far off for photography.

We had hardly got ourselves settled at our water-hole when our tracker whispered " Aliya," and through the scrub jungle to the left of the water-hole, out into the open glade leading down to the water, came the most magnificent elephant with perfect tusks about three feet in length. Our excitement was intense as we filmed and photographed him coming down to drink. He was a much bigger elephant than the one we had seen on the way in, so he made number two tusker. After he had gone we were all congratulating ourselves on our exceptional luck at being able to film, at close quarters, a tusker, when another whisper of " Aliya " made us look to the top of the glade and we could see the grey form of an elephant moving out of the scrub. When he emerged you could have knocked us all down with the proverbial feather, as once again it was a tusker, a smaller one than the last, but with perfect tusks. He came down and drank as we filmed and photographed him. No herd came with him, he was on his own, and we think again a different one from the one seen on the way in, so he made tusker No. 3 ! Our excitement was great at filming two in one day, as can be imagined. About 3 p.m. that afternoon after a slight lull of animals coming down. I happened to be looking into the scrub jungle on the right of the glade and gave an excited, whispered-squeak of " Bear " as out ambled a big male. Down he came to the water's edge and slaked his thirst, but had a slightly bothered drink as he must have either been at a red ants' nest or after honey, as he kept on stopping drinking to scratch his ear ! Our cameras, of course, were whirring and clicking the whole time. What a day's filming, two tuskers and a bear as well as other animals including two elephant herds each with a small baby.

Next day saw us again at the same water-hole, but for the first part of the morning it was fairly quiet until at mid-day, from the top of the glade appeared another large, male bear. He was even bigger than the one we had seen the previous afternoon, and in perfect condition,

with a very long, thick glossy coat. He came straight to the water and settled down for a lovely long, cool drink. Filming was perfect and once again we could hardly believe our luck. During the afternoon we were visited by two more elephant herds, one of which had a baby which kept us highly amused and gave us some lovely filming, whilst he was playing around trying his strength on a small sapling near the water's edge. His expression of a-feat-accomplished when he had eventually bent the sapling down with his trunk and triumphantly put his front foot on it, made us grin from ear to ear. They had just moved off so we decided we could all do with a cup of tea ourselves and stretch our legs.

It was just on four p.m. when some spotted deer nearby in the scrub jungle started barking. I dived back to my seat behind my camera on its tripod, and sat absolutely still hardly daring to breathe, but all the time sending up little prayers to the gods of the jungle to be kind to us this time and to let me fulfil my own small ambition of filming a leopard. We were all sitting tensely, keyed up to fever pitch with excitement, hardly daring to blink even an eyelid, when my little prayer was answered and out of the jungle on our right appeared the leopard! He sat down on his haunches and surveyed the open glade, unfortunately he was slightly masked from me by two small branches of "cheddy," so again I held my breath in case something frightened him before he came down to his drink. Then he stood up and lithely walked down right across the front of the water-hole to the opposite side, where he stopped, looked around for a moment and then settled himself down for his drink. What a most superbly beautiful sight he was! He was a very big male in the most perfect condition, shining glossy coat beautifully rosetted, rippling muscles, a sight of such sheer beauty, that to shoot one, to me, seems utterly criminal. As can be imagined our cameras were going flat out, I was using my 150 m.m. telephoto on him at 40 to 50 yards range. We had been filming and watching him for about ten minutes when we happened to see a large elephant approaching from the top of the glade. We all thought the elephant on seeing the leopard would sheer off, but we were mistaken. Apparently for some reason or other the leopard did not hear the elephant's approach until it was almost on him and, I suppose, taken by surprise, he gave one enormous spring and with huge bounds crossed the front of the pool and disappeared into the jungle almost at the same place from where he had entered.

Back in camp that evening, sitting under the starlit sky, with a whisky and soda in our hands, our chatter, as can be well imagined, was entirely of our most stupendous luck surmising and hoping our films and photographs would turn out the success we hoped; and as it happens they have, for all of us turned out the best we have ever taken.

Getting into bed that night we expected to drop off to sleep and dream of our leopard and our success. But it was not to be, as not long after we had crept between the sheets the most blood-curdling noise rent the air which seemed, practically in camp. We all shot up in our beds to listen, one of us going to waken the tracker, whose sleep had not been disturbed! It turned out to be a she-bear on heat accompanied by two or more males fighting for her possession, with the greatest part of the discussion taking place in the very closest proximity to camp. As on these occasions, neither fires nor lanterns are much of a deterrent to bears, we were prepared to shin up one of the big Kumbuk trees underneath which our tents were pitched, should they decide to carry on their love affair through our camp! However, the next bout of blood-curdling shrieks and roars was slightly further away, and after a short time the intermittent bouts gradually receded further and further away and we were able to return to our dreams. What a finish to a wonderful day! And for me, my ambition had been realised.

Ruhuna National Park

Letter to a Friend in England By K. E. W.

DEAR HARRY,

THIS tale of Yala is in answer to your article on Carp Fishing, which you sent me. I think you will agree that this trip was quite out of the ordinary in the way of excitements.

Late this April, we up and packed and off we went to Yala, or Ruhuna National Park, to give it its official name. We were staying at Buttawa, one of the two bungalows in the Park. A very pleasant spot, near the sea and alongside a big rock from which one gets a wonderful view of the surrounding countryside. There is also a small artificial tank or pool there about fifty yards from the house, which played a big part in our entertainment. We all four slept on the verandah in a row, much cooler and as you will see, more exciting.

The first evening, just as we were about to go off on a tour round, the tracker came running to say that there was an elephant coming down to drink and sure enough " Buttawa Bill " rolled down to the water five minutes later. Buttawa Bill is a wild elephant, but he has become so used to humans that he seems tame, nevertheless, a wild elephant and not to be taken liberties with. We took a lot of photos of him and when he pushed off, set out on our delayed tour.

Buttawa plain was covered with deer, pig, peacock, buffalo and a couple of young elephants, who galumphed into the bushes as we passed. We drove down a back track and came on a herd of nine elephants, a most lovely sight in the setting sun, especially as they had two babies amongst them. One was quite an old baby, but the other was very new, still brown and fluffy and so small that even though all its " Aunties " closed round it to hide it, we could still see it standing underneath them. By way of a contrast, the very next animal we saw after this majestic sight, was a very small brown mouse leaping and bounding across the road ! We saw sambhur, jackal and mongoose too that evening, so really felt we had had our money's worth, even if we saw nothing for the rest of the time.

A very restless night, there seemed to be a lot of movement going on outside. A civet cat evidently thought the pull plug lavatory was its own private water-hole and chittered with rage every time I drove it away. Gnawing noises turned out to be a hare a few yards away and then an elephant drifted across in front of me ! I was too paralysed to wake the others up and just lay there with my eyes starting out of my head until he moved off. We heard next morning that our driver and the tracker sleeping in a small hut at the back had had an even more disturbed night. Sam, our driver, is rather an excitable type and his story was too lurid for words !

Apparently they were awakened by an elephant scratching itself against the hut and shaking it frighteningly in doing so. Sam put his head out of the window and practically butted the elephant in the belly ! He crept to the door, with the idea of running to our building, opened the door a fraction, and to his horror, there was another elephant doing the scratching act that end of the hut too. After that, I think Sam lay down and resigned himself to death ! He told us a brave story in the morning, at which the tracker roared with laughter and said " Driver very frightened ! " and who could blame him.

We did not see an awful lot on our tour that morning. An unforgettable sight of three peacock in full plumage, drinking at a little puddle in the middle of the road, no chance to get a cine shot though. We saw another obliging elephant who allowed us to photograph him and got a good one of an old boar. We had a lovely bath after breakfast and lazed around all morning in the bungalow.

We were sitting down to our pre-lunch gins

when a discussion arose as to how one tried to spot animals in the jungle. R. was just saying " I think I look in the middle distance—" raised his eyes to do so and then sat with his mouth hanging open. We turned round and there was an elephant in the tiny tank fifty yards away ! This was not Buttawa Bill, but another equally charming gentleman, obviously belonged to the same Club ! We named him Mr. Snodgrass ! The day before, we had awarded Buttawa Bill the O.B.E. (Order of the Best Elephant), but today we had, perforce, to award Snodders the M.B.E. (Much Better Elephant). He actually took his bath right in front of us and permitted us to photograph his ablutions while we were drinking our gins ! He lay right down with his back to us and all we could see at that stage was the bulge of his large waterfilled tummy, sticking out of the water. A very pleasant interlude.

We met up with a horrid contrast to Snodders and Bill's charm when we drove out that evening. We diverged from the main road to drive across a small plain. Oddly enough we had never seen anything much there except pig and buffalo, but this evening there were some storks standing in a pool and about 150 yards ahead, an elephant, standing right beside the track. R. said " If he doesn't move, I should be able to get a very fine close up of the whites of his eyes as we go by ! " We stopped the car to examine the storks and then started to drive very gently towards the elephant thinking he would amble off, as they usually do. Not a bit of it ! Without a moment's warning he charged us. One second he was peacefully chewing grass and the next, trunk tucked up, ears flapping he was coming at us. J. had to jam the car into reverse and back flat out down the track. We all sat in frozen horror, watching the elephant gaining on us. The tracker leant out of the window and screamed " the words " in the elephant language and, thank Heaven, the angry old man stopped and moved off the road and we could proceed very gingerly past him. We called that elephant all sorts of unprintable names, but I think he was finally christened " Dusty Pants " because he was a rather tatty looking old fellow with very wrinkled and loose fitting trousers, which he had sprayed all over with dust. Not an attractive man !

We hadn't quite finished our frights for that evening. On the way back, not far from where we had met " Dusty Pants " we saw an elephant walking down the middle of the road in front of us, going the same way as we were. He gave no sign at all that he knew we were there and we followed at a vrey respectful distance until he vanished round a corner ahead of us. The tracker, very wisely, made us stop the car and back while he got out and walked ahead round the corner. Sure enough, there was the elephant standing in the middle of the road. The tracker clapped his hands softly and asked the elephant very politely to move and, thank goodness, he did. Whether it was " Dusty Pants " still belligerent and hoping to ambush us, we did not know, but we were glad the tracker had taken such precautions.

We went out again early the next morning, we passed one elephant, who moved off and then came on a simply magnificent buffalo bull sitting in a pool. He looked more like a bison than a buffalo and we thought he merited a photograph being taken. R. wanted to switch the engine off, but M. and I were not too happy about it, not being very enamoured of buff. We did not like the look in this chap's eye and he behaved in a rather odd manner. He stood up and started a peculiar sideways movement, which looked as though he was moving away, when in actual fact, he was gradually getting nearer and nearer. However, we started to drive away before he got to the edge of the water and we thought all was well. Suddenly J. looking casually back, yelled " Look out, he's coming " and the buff loomed monstrously out of the water and charged. We shot forward down the track, bounding through potholes and round corners with a couple of

tons of buffalo thundering after us. R. kept saying "Is he still coming" and the answer always seemed to be "Yes!" I may say, it was all we could do to keep ahead of him, buffs have a very pretty turn of speed over a short distance. The tracker screamed his "words" again and at last, after what seemed hours, J. said "It's all right, he's stopped." A very terrifying moment and I felt that I must be a very interesting shade of green! I'm never at my best before breakfast. We found afterwards that Sam sitting in the back of the station wagon with the doors a little open, had very nearly been shot out and left on the ground as buffalo bait, when R. accelerated violently. Ghastly thought! The extraordinary noise the tracker makes screaming the "words" seems to add enormously to the terror of these moments. It doesn't sound human. We saw plenty of other game that morning and but for the tracker's sharp eyes would have bumped into an elephant's backside round a corner. We stopped and backed away with our hearts in our mouths and went back another way. We felt we'd had enough for one morning. A lovely bath after breakfast and a lazy day. M. and I were not so keen on going out in the evening, but felt we should on the principle that after a fall, one must hop on again quickly! However, we were saved having to make up our minds by Buttawa Bill, who came to tea and stayed till dark. He drank and then came up our side and ate all the grass round our car, rather like a cow grazing. Then he came right up to the bungalow where we were sitting on the verandah and I swear if I had offered him a loaf of bread, he'd have been charmed. However—no risks, he's wild still. To top off the day, a leopard came down to drink at dusk. We spotted him lying on the bund and he wandered down to the water to drink. A lovely sight. Mr. Snodgrass came down to drink at the same moment, but we were getting so blasé about elephants, we barely looked at the poor chap. Our eyes were rivetted on the leopard.

The next day, to soothe our frayed nerves, we went for a peaceful drive to a rock waterhole. Jamburagala is an enormous great rock, it must be about 100 ft. high and when you climb to the top, you get a most wonderful view of the surrounding jungle. No terrifying moments today, much to my relief. My heart was in my mouth and I would have jumped out of my skin if I saw anything move at all. This was our last day and in the cool of the evening we had, regretfully, to start to pack.

The elephants gave us a good send off when we were in bed that night. I slept soundly, but M. was wakeful and records in her diary "I couldn't get to sleep. I heard a noise and I thought it was the civet cat on the front verandah attracted by the smell of the stew which we had left in a pot on the stove." (We had our camp kitchen units with us and M. cooked us some luscious suppers). "Suddenly I realized the night sky was blotted out by an enormous shape. After all our frights, I really thought this was it! I sat very quietly stricken with fear and watched the elephant walk along by the front verandah and then turn down past our beds, almost within touching distance of my hand. His bulk was so huge that he towered over the roof. I plucked up courage to tap J. who tapped R., who tapped K. and all four of us watched this colossal bulk breathing and puffing within touching distance." Apparently the elephant stopped at the bottom of my bed and pulled at a tomato plant growing at the edge of the verandah. The next morning, I measured and found his front feet were eight feet from the bottom of my bed, so he must have had a good sniff at us all! Thank Heaven, I didn't really wake up until he had moved off a few yards. If I had woken suddenly and seen him at my feet, I should probably have leapt into the air with a wild yell and terrified both myself and the very companionable Bill or Snodders!

I haven't mentioned the lesser game much, we seemed to be so haunted by elephants. The tracker murmured something about "Lady, elephant's mother." Whether he meant that

I attracted the little dears, or was rather rudely referring to my increasing bulk, I don't know, but we certainly saw more than our share.

In actual fact, I think we saw pretty well everything except bear. Some lovely herds of deer, one of the nicest sights were four young stags playing in the bungalow pool at dawn. Lots of piggy-wigs with their ridiculous faces, a crocodile and innumerable birds. We had a record trip for the latter, 112 varieties from start to finish. One laughable sight of a sounder of pig bolting past three peafowl. The pigs buffeted the peafowl as they went past and the peafowl picked up their skirts and skipped out of the way, rather like old maiden aunts saying " O, you rude little boys ! "

Some gorgeous sunrises and sunsets and so many delightful things to remember, as well as the alarums and excursions, which are, after all, part of the thrill of any visit to the jungle. I wouldn't have missed any of it, not even " Dusty Pants " and the buffalo bull ! "

A HELICOPTER RIDE OVER JUNGLE

By J.A.A.P.

TWO V.I.Ps. had gone to Mannar by helicopter on business and it was necessary that they should visit Mankulam where one of them was to leave the air and take to the road. Emergency fuelling had therefore to be organized at Mankulam and I was lucky to get the job of going there from Mannar by road with the aviation fuel and returning to Mannar in the helicopter.

Everyone at Mankulam who had a chance of getting to the Government Farm was there to see the helicopter take off.

We set off at about 5 o'clock of a calm evening, and at a height of about 600 feet, struck a westerly course for Mannar. The glare of the setting sun was ahead ; blue sky and large cumulus clouds above ; and below us, as far as eye could see was dark thick jungle dotted here and there with park-like glades.

At a word from the V.I.P. the pilot took the machine down to about 300 ft. We had hardly levelled out at that height when the pilot pointed out a small herd of about ten head of deer in an open glade. At once the Big Shot called out, " Swing round to see them again " and the pilot banked and swung round in a wide sweep to pass over that herd again ; but in a trice right below us in a larger glade was a herd of over 200 spotted deer. As we hovered over them (and, I think, went a bit lower) the startled herd broke and scattered in utter confusion seeking the shelter of the thickets in frantic yet graceful leaps and bounds. Soon, not one single animal was to be seen. They scattered as marbles would go if a bag of them burst on falling from a height.

We went up and on, purring steadily along at 50 m.p.h. and now on the " qui-vive " for game ; and soon our eager watch was rewarded.

" Look there—elephants " hissed a sibilant whisper while a finger pointed downward and lo, there below us was a grand herd led by a magnificent tusker. They were about 20 in number including calves, and were in a family compact group when we spotted them in the glade. For a brief moment the animals milled round, as if to get into position ; then with commendable calmness in the face of this unknown enemy hovering over them they formed into two separate groups and one group went sedately off into the jungle, led by the tusker ; while the other group led by another huge specimen went off in a direction about 45° off the path taken by the first group. Each party went in " Indian file " and what impressed me was that the calves in each group were about two-thirds down the line

and the actual rear was brought up by full-grown elephants (presumably mothers ?)

This manoeuvre was carried out throughout with the dignity and sedateness of a ceremonial parade and without the slightest sign of confusion in the herd. However, very soon, for all their lumbering gait, the elephants gained the protective covering of the jungle and were lost to view.

Up again, and away till we came in the heart of the jungle to a small watercourse in which two buffaloes were standing with water up to their bellies. Although we flew very low over them, not by so much as the batting of an eyelid (metaphorically) did they give any indication that they had heard the aircraft, or were in any way affected by it ; not by so much as the twitch of a tail—(which could have been seen) did they give as an acknowledgment of the monster above. I wondered whether it was that they didn't hear ; or whether they just couldn't care less !

Thereafter, only dense foliage was visible below us as we sped on for a goodly distance, and then gradually open land was reached. Soon, cultivated fields and then a few scattered houses came into view, and then hamlets with small houses clustered together with their goat pens in each compound. These goats just went berserk. In sheer panic they leapt hither and thither (meanwhile bleating like Billy ho, no doubt, though we couldn't hear that) and in the larger pens they rushed the fences flat and stampeded helter skelter, while frenzied herdsmen could be seen making desperate efforts to calm and round them up.

Mannar soon hove in sight, and to the shouts of welcome of an enthusiastic crowd which had assembled to meet the V.I.P., the helicopter touched down, and for me a memorable trip was over.

Note.—Though planes fly over this area regularly they do so at several thousand feet above ground level; this trip in a helicopter with its weird noise was almost at "hedge hopping" level.

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TRACKS

By C. E. NORRIS

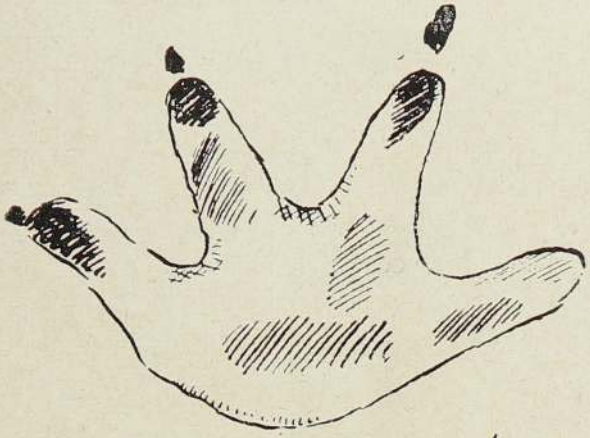
Crocodile tracks will generally be found on a sand-bank in a river bed or leading across the mud at the river's edge. The drag-mark of the tail is not always present as crocodiles generally carry their tails off the ground when walking on land. Talagoyas and Kabaragoyas, in contrast, nearly always drag their tails leaving a snakey mark in the sand. A flattened piece of ground near the water's edge discloses a crocodile's place of basking in the sun, often droppings will be found to confirm this. The droppings of a crocodile dry out white.

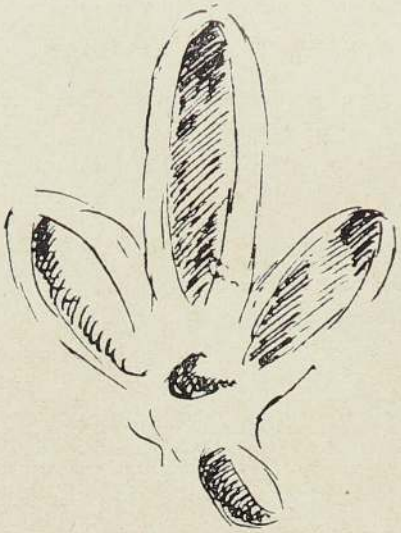
Jungle Fowl tracks are similar to those left by peafowl but are considerably smaller. I have shown the impression of the hind toe at an angle, as I have come across this on many occasions.

Mongoose.—The neat little tracks of a mongoose could be mistaken for a Civet cat or Palm cat. The strong claws of a mongoose are generally visible in the impression whereas those of the cats are not so plainly shown.

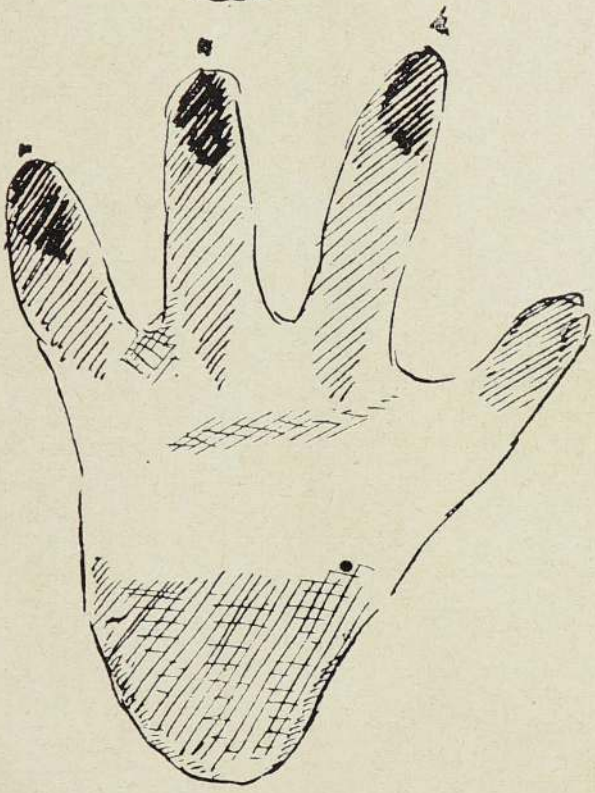
Otter's tracks are common along the edges of most rivers and streams ; the webbing between the toes is plainly shown on a good, clear impression. The otter is a much commoner animal than is generally realised ; being nocturnal by habit it is seldom seen. Otters do undoubtedly take fish but their main diet is comprised of crabs as can be seen from their droppings.

Gerbil.—These little tracks can be seen in the dust on roads and paths. The Gerbil is also nocturnal by habit and is seldom, if ever, seen in daylight.



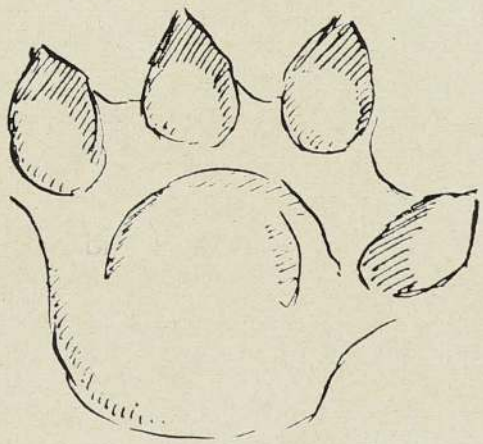


JUNGLE FOWL

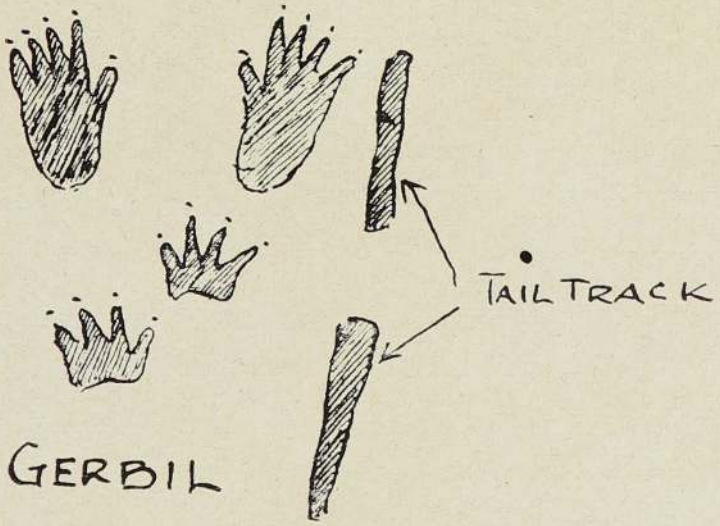


CROCODILE

MONGOOSE



OTTER



GERBIL

These tracks are not drawn to scale.

Mr. J. A. de Silva

Mr. J. A. de Silva, former Conservator of Forests, has assumed duties as Warden of the Wild Life Department.

Mr. de Silva, who was the first Ceylonese to be appointed Conservator of Forests, is 56 years old.

He was a brilliant sportsman in his day.

He was educated at Royal College, Colombo, and Trinity College, Kandy, from where he went to Oxford in 1922, and obtained his degree and diploma in Forestry.

He started his career as an Assistant Conservator of Forests in August, 1927, and was confirmed Conservator of Forests in 1950.

In 1951, he represented Ceylon at the FAO Conference on Land Utilisation, at Nuwara Eliya.

Mr. de Silva started playing cricket at the age of 13 for his school, and was in the cricket team from 1914 to 1919. He scored several centuries during his school days. He was later selected to tour India with Dr. John Rockwood's team.

He played for Ceylon against the MCC team in 1921. At Oxford, he played for the team.

A Naturalist in Ancient Ceylon

By T. A. MUDIAPPA

TOWARDS the latter part of the year 1659 the frigate "Ann," which was plying in the service of the English East India Company, was caught in a severe storm off the coast of India and took refuge in the bay of Kottiyar near Trincomalee in April, 1660. Captain Knox, the skipper of the vessel, his son Robert and some of the crew were invited by the Sinhalese to come on shore, and there they were surrounded and carried away to the interior. The artful attempts of the Sinhalese to get the captain to order the ship to come up the creek miscarried. Knox sent word to the crew to be on the look-out. The captives were then kept inactive for about two months whereupon the captain sent an order to the ship to set sail, which she did. Shortly afterwards the prisoners were removed to Kandy where they were detained indefinitely.

Captain Knox died in captivity, but his son Robert managed to escape to the Dutch at Arippo in 1679 and with their aid he returned to England after an enforced stay of 18 years in Ceylon. He wrote a most interesting book on Ceylon, which is a veritable mine of information about the Island in those early times. One of the subjects to which Knox gave his attention was "the creatures that this country is famed for." He opens his discourse with a statement of the assets and liabilities of the Island in this connection. "They have cows, buffaloes, hogs, goats, deer, hares, dogs, jackals, apes, tigers (leopards), bears, elephants, and other wild beasts. Lions, wolves, horses, asses,

sheep, they have none," says he.

The elephant, " the creature that this country is famed for above any in India," is singled out for special comment. He first tells us about their mode of capture. " This beast," he observes, " though he be so big and wise, yet he is easily caught. When the King commands to catch elephants, after they have found them they like, that is such as have teeth (tusks); for though there be many in the woods, yet but few have teeth, and they males only: unto these they drive some she-elephants, which they bring with them for the purposes; which when once the males have got a sight of, they will never leave, but follow them wheresoever they go; and the females are so used to it, that they will do whatsoever either by a word or a beck their keepers bid them; and so they delude them along through towns and country, through the streets of the city, even to the very gates of the King's palace; where sometimes they seize upon them by snares, and sometimes by driving them into a kind of pound (enclosure), they catch them. After they have brought the elephant which is not yet caught together with the she, into the King's presence, if it likes him not, he commands to let him go; if it does, he appoints him some certain place near unto the city, where they are to drive him with the females; for without them it is not possible to make him stay; and to keep him in that place until the King's further order and pleasure is to catch him, which perhaps may not be in two or three or four years; all which time there are great men with soldiers appointed to watch there about him; and if he should chance to stray a little out of his bounds set by the King, immediately they bring him back, fearing the King's displeasure, which is no less than death itself." (*See foot-note at end.*)

The elephants so captured were often put to sinister use by the King, for while being quartered in the manner referred to above, he says, " these elephants do great damage to the country, by eating up their corn, and trampling it with their broad feet, and throwing down their coconut trees, and often times their houses too, and they may not resist them. It is thought this is done by the King to punish them that lie under his displeasure. And if you ask what becomes of these elephants at last; sometimes after they have thus kept watch over them two or three years, and destroyed the country in this manner, the King will send order to carry them into the woods, and let them go free. For he catches them not for any use or benefit he has by them, but only for his recreation and pastime."

After describing the manner in which elephants are captured, Knox goes on to relate what he has heard concerning the affection they have for their offspring. " And as the Sinhalese report," says he, " they bear the greatest love to their young of all irrational creatures; for the shes are alike tender of any one's young ones as of their own: where there are many she-elephants together, the young ones go and suck of any, as well as of their mothers; and if a young one be in distress and should cry out, they will all in general run to the help and aid thereof; and if they be going over a river, as here be some somewhat broad, and the streams run very swift, they will all with their trunks assist and help to convey the young ones over."

The depredatory tendencies of elephants have also been noted by Knox. He writes in this connection as follows:—" The people stand in fear of them, and oftentimes are killed by them. They do them also great damage in their grounds, by night coming into their fields and eating up their corn and likewise their coconut trees, etc. So that in towns near unto the woods, where are plenty of them, the people are forced to watch their corn all night, and also their orchards and plantations; into which being once entered with eating and trampling they will do much harm, before they can get them out. Who oftentimes when by lighting of torches, and halloing, they will not go out, take their bows and go and shoot them,

but not without some hazard, for sometimes the elephant runs upon them and kills them. For fear of which they will not adventure unless there be trees, about which they may dodge to defend themselves. And although there be both bears and tigers in these woods, yet they are not so fierce, as commonly to assault people ; travellers and wayfaring men go more in fear of elephants than of any other beasts."

Knox then discusses the various sorts of ants that are found in this country. He mentions six different kinds, viz., coumbias, tale-coumbias, dimbios, coura-atch, coddia and vaeos (termites). His observations regarding the coddia and vaeos are interesting. Of the former, he states :—" This ant is of an excellent bright black, and as large as any of the former. They dwell always in the ground ; and their usual practice is, to be travelling in great multitudes, but I do not know where they are going, nor what their business is ; but they pass and repass some forwards and some backwards in great haste, seemingly as full of employment as people that pass along the streets. These ants will bite desperately, as bad as if a man were burnt with a coal of fire. But they are of a noble nature : for they will not begin ; and you may stand by them, if you do not tread upon them nor disturb them. The reason their bite is thus terribly painful is this ; formerly these ants went to ask a wife of the noya (the cobra), a venomous and noble kind of snake ; and because they had such a high spirit to dare to offer to be related to such a generous creature, they had this virtue bestowed upon them, that they should sting after this manner. And if they had obtained a wife of the noya, they should have had the privilege to have stung full as bad as he. This is a current fable among the Sinhalese. Though undoubtedly they chiefly regard the wisdom that is concealed under this, and the rest of their fables."

Of the termites he observes—" These are more numerous than any of the former. All the whole earth does swarm with them. They are of a middle size between the greatest and the least, the hinder part white, and the head red. They eat and devour all that they can come at ; as besides food, cloth, wood, thatch of houses and everything excepting iron and stone. So that the people cannot set any thing upon the ground within their houses for them. They creep up the walls of their houses, and build an arch made of dirt over themselves all the way as they climb, be it never so high. And if this arch or vault chance to be broken, they all, how high soever they were, come back again to mend up the breach, which being finished they proceed forwards again, eating everything they come at in their way. This vermin does exceedingly annoy the Sinhalese, insomuch that they are continually looking upon anything they value, to see if any of these vaeos have been at it. Which they may easily perceive by this case of dirt, which they cannot go up anywhere without building as they go. And wheresoever this is seen, no doubt, the ants are there. In places where there are no houses, and they can eat nothing belonging to the people, they will raise great hills like butts, some four or five or six feet high ; which are so hard and strong, that it would be work enough to dig them down with pickaxes. The Sinhalese call these humbosses. Within they are full of hollow vaults and arches where they dwell and breed, and their nests are much like to honeycombs, full of eggs and young ones. These humbosses are built with a pure refined clay by the ingenious builders. The people use this clay to make their earthen Gods of, because it is so pure and fine."

Of all animals monkeys, no doubt, would have fascinated Knox greatly, for he writes at some length on these creatures. Some of them, he says, are as " large as our English spaniel dogs, of a darkish grey colour, and black faces, with great white beards round from ear to ear, which makes them show just like old men." Another sort is " of the same bigness but different in colour, being milk

white both in body and face, having great beards like the others ; of this sort of white ones there is not such plenty." Both these sorts " do but little mischief, keeping in the woods, eating only leaves and buds of trees, but when they are caught they will eat anything." These monkeys " they (the Sinhalese) call in their language wanderoos." Of the monkeys which the Sinhalese call " rillowes," he remarks as follows :—" There is yet another sort of apes, of which there is great abundance, who coming with such multitudes do a great deal of mischief to the corn, that grows in the woods, so that they are fain all the day long to keep watch to scare them out : and so soon as they are gone to fray (frighten) them away at one end of the field, others who wait for such an opportunity come skipping in at the other ; and before they can turn, will fill both bellies and hands full to carry away with them ; and to stand all round to guard their field is more than they can do. This sort of monkeys have no beards, white faces, and long hair on the top of their heads, which parts and hangs down like a man's. These are so impudent that they will come into their gardens, and eat such fruit as grows there."

Knox passes on next to a discussion of the other living creatures found here and begins with the birds. " In that land," says he, " there are crows, sparrows, tom-tits, snipe, just like those in England, wood-pigeons also, but not great flocks of any sorts, as we have, only of crows and pigeons. I have seen there birds just like woodcocks and partridges, but they are scarce. A great many wild peacocks ; small green parrots, but not very good to talk. But here is another bird in their language called mal-cowda, which with teaching will speak excellently well. It is black with yellow gills about the bigness of a blackbird : and another sort there is of the same bigness, called cau-cowda, yellow like gold, very beautiful to the eye, which also might be taught to speak." It is not known what birds Knox has in mind when he speaks of the " mal-cowda " and " cau-cowda." He is probably using Kandyan Sinhalese names which have since become obsolete. Wait (The Birds of Ceylon) has mal kavadiya or " the Ceylon Grackle." The gon kavadiya according to Wait is " the Common Ceylon Mynah."

The Paradise Flycatcher which gladdens the heart of any bird-watcher, seems to have held similar charms for Knox, for he has the following reference to this bird in his book :— " Here are other sorts of small birds, not much bigger than a sparrow, very lovely to look on, but I think good for nothing else : some being in colour white like snow, and their tail about one foot in length, and their heads black like jet, with a tuft like a plume of feathers standing upright thereon. There are others of the same sort only differing in colour, being reddish like a ripe orange, and on the head a plume of black feathers standing up. I suppose one may be of the cock, and the other the hen."

After commenting on the birds Knox switches on the subject of fish. The Sinhalese as far as his observations go " have no want of fish and those good ones, too. All little rivers and streams running through the valleys are full of small fish, but the boys and others wanting somewhat to eat with their rice, do continually catch them before they come to maturity." The following description illustrates the manner in which fish are caught :— " They have a kind of a basket made of small sticks, so close that fish cannot get through ; it is broad at bottom, and narrow at top, like a funnel, the hole big enough for a man to thrust his arm in, wide at the mouth about two or three feet ; these baskets they job (thrust) down, and the end sticks in the mud, which often happen upon a fish ; when they do, they feel it by the fish beating itself against the sides. Then they put in their hands and take them out. And rieve (pierce) a rattan through their gulls, and so let them drag after them. One end of this rattan is stuck in the fisher's girdle, and the other knotted, that the

fish should not slip off : which when it is full he discharges himself of them by carrying them ashore."

Finally, Knox discourses upon the snakes of this country. He refers to the python, the viper and to the cobra. Using the indigenous names he describes them as follows :—" The pimberah, the body whereof is as big as a man's middle, and of a length proportionable. It is not swift, but by subtlety will catch his prey ; which are deer or other cattle ; he lies in the path where the deer use to pass, and as they go, he claps hold of them by a kind of peg that grows on his tail, with which he strikes them. He will swallow a roebuck whole, horns and all ; so that it happens sometimes the horns run through his belly, and kill him. There is another venomous snake called polonga, the most venomous of all, that kills cattle. Two sorts of them I have seen, the one green, the other of a reddish grey, full of white rings along the sides, and above five or six feet long. Another poisonous snake there is called noya, of a greyish colour, about four feet long. This will stand with half his body upright two or three hours together, and spread his head broad open, where there appears like as it were a pair of spectacles painted on it. The Indians call this noy-rodgerah, that is, king's snake, that will do no harm. But if the polonga and the noya meet together, they cease not fighting till one has killed the other."

Rajasinha II, King of Kandy. By a strange coincidence this monarch was greatly interested in birds and animals. Knox says of him—" But that which he does chiefly value and esteem, are toys and novelties, as hawks, horses, dogs, strange birds, and beasts, and particularly a spotted elephant, and good arms, of which he has no want." The presents that were sent to Rajasinha by the Dutch from time to time, included on one occasion the gift of a lion. In 1679 the Dutch sent him a present of ten hawks, each attended by a Malabar slave, six civets carried in cages, six game-cocks from Tuttocoryn, two Persian sheep, a stem of sandal-wood, and a case of wine.

Rajasinha was reputed to have a passion for hawking. He once wrote to Jacob Van Kittenstein, the Dutch Governor at Galle, about the arrival of some presents which he had not deigned to look at, and continued thus :—" I brought up a hawk with great love and tenderness, and taking him with me one day to the chase I gave him wing, and he disappeared for ever. I think it reasonable that I should write to you about these things that are to my taste, and when you are informed of them you are bound to give effect to my wishes. If it should be, therefore, in your power to procure for me some good hawks, as well as other birds of prey that hunt well, and other matters pertaining to the chase, please to send them as presents to me."

SIR SAMUEL BAKER

By J. WENTWORTH DAY
in the *Morning Times*

SIR Samuel White Baker once crawled into a lion's den on hands and knees and shot the animal at five yards' range. On another occasion he shot a charging African bush buffalo, the most dangerous animal on earth, with a handful of six-penny bits rammed into a rifle in lieu of a bullet.

Is it any wonder that Stanley, the great African explorer, said of this man :

" He was a glorious Englishman . . . in olden times he would have been deified for his vigour, indomitable bearing, physical strength and exploits."

Today Sir Samuel's name is almost forgotten, yet he was one of the most intrepid sportsmen, administrators and explorers of all time.

He discovered Lake Albert Nyanza when Darkest Africa was as black as midnight so far as the map-makers were concerned. With an army of 2,000 he fought a war against the slave-traders of the Sudan.

Samuel Baker came of a long line of fighting

squires and rovers. His father owned Lypiatt Park in Gloucestershire, where Baker was born on June 8th, 1821. He looked like a young Saxon noble, fair-haired, with fearless blue eyes, and he was prodigiously strong.

In 1845, aged 24, two years after he married, he went to hunt elephants in Ceylon. The animals were ruining the rice fields and terrorising the villages. No one did anything about it until Baker "the greatest elephant hunter that ever lived," arrived on the scene.

He carried two momentous weapons, both muzzle-loaders. First, a single four-bore rifle with a barrel three feet long, shooting 16 drams of black powder and a quarter-pound bullet. This weapon weighed 21 pounds!

Second was a double eight-bore rifle weighing 16 pounds. None but a near-giant could have fired the first weapon which could send its four-ounce bullet clean through a bull buffalo half a mile away. With it Sir Samuel killed an elephant stone-dead at 120 yards.

He killed 31 of them in five days, his biggest bag for one day being 14 elephants.

In India he killed every tiger he fired at—to a total of two and twenty. This incredible man who hunted big game in Europe, Asia, Africa and North America regarded the African bush buffalo as the most dangerous of all animals. He followed one knee-deep into a swamp, shot it twice and then was left facing the still-standing and furious brute without a bullet on him.

The bull gave a short grunt and "with a stealthy step advanced a couple of paces towards me . . . the picture of rage and fury, pawing the water and stamping violently with his forefeet."

Baker stealthily grounded his muzzle-loading rifle tipped a double charge of black powder down the right-hand barrel and then taking out a handful of sixpenny bits and two anna pieces rammed them down the barrel!

Then the buffalo charged. "The horns were lowered, their points were on each side of me, and the muzzle of the gun barely touched his forehead when I pulled the trigger and three shillings' worth of small change rattled into his hard head. Down he went and rolled over. He was not dead but only stunned."

Still Baker managed to get away with his life.

Sir Samuel was far more than a mere hunter. With his own money he bought a large tract of land at Nuwara Eliya in Ceylon in 1848 and founded there a vigorous English settlement from which grew a fashionable health resort.

After his first wife died in 1855 he built the railway bridge across the Dobrudia connecting the Black Sea with the Danube. Then he went off to Hungary and met Miss Florence von Sass, his second wife.

They set off in 1861 to look for the missing explorers Speke and Grant. It was an incredible tour through the Sudan and Abyssinia and culminated in Baker's discovery of Lake Albert Nyanza. Both suffered fearful hardships. But they relieved Speke and Grant.

Baker got a knighthood, gold medals from Britain and France, a decoration from the Khedive, and an honorary degree from Cambridge.

He and his wife became the lions of London. It was too much. Off he went to the Sudan to suppress the slave trade, to open up the great lakes for navigation and establish a chain of military and trading posts in Central Africa.

Through four years of death and danger, Lady Baker, dressed in trousers, a jacket and gaiters, was always at her husband's side.

He writes:

"For 130 miles she marched on foot. For 78 miles, sometimes marching 16 miles in one stretch, through gigantic grasses and tangled forest, she was always close behind me, carrying ammunition in the midst of constant fighting . . . She has always been my prime minister, to give good counsel in moments of difficulty and danger."

Baker retired finally to his Devonsire home at Stanford, Orleigh, the idol of children and grown-ups alike. "I hardly ever knew a more

lovable character," Lord Wharncliffe wrote of him. Once guests at his manor house found him giving a substantial tea to two dusty tramps he had met on the road. One guest expressed a little surprise.

" Ah well," said Sir Samuel with his charming smile, " I think they've had a happy afternoon and I daresay that's what they don't often have."

On December 31st, 1893, this " glorious Englishman," then in his 73rd year, died—a man fit to walk with the gods.

Snips

Three Elephants Killed in Gal Oya Valley

Three elephants were shot dead in Gal Oya Valley during the last two weeks, and it is feared that more elephants might be killed in this part of the Island if the Government does not take adequate steps to stop this wanton killing by chena and paddy cultivators who take shelter under the fauna and flora ordinance.

The first elephant was shot in Wadinagala eight miles away from Inginiyagala town in a chena by a cultivator who admitted the shooting to protect his chena crop.

The second elephant to be shot was at Kandavatuwana jungle two miles away from Amparai town near a paddy field. The carcase was discovered by the Board's Amparai forest officers who could not trace the gunman in spite of careful investigation. But it is presumed that it must have been shot by a cultivator.

The third one was found within the sanctuary of Mahakandiya eight miles from Uhana Town. The Uhana Police discovered the carcase and the cultivator admitted the shooting as a measure of protection.

It was only last month another elephant was shot by a cultivator. It was found dead at the Amparai Sugar Cane farm.

October, 1957. *Daily News.*

11 Bullets was all that Jumbo could take

Finishing his last round the night watcher at the Sugar Cane Farm at Amparai handed over his beat to his relief. There was " nothing to report."

The day watcher was making his first routine check when into the open fields painfully stumbled an elephant. It lay down on its side and died.

This majestic beast had eleven gun-shot wounds on its body—three of them unmistakably the searing wounds caused by a muzzle loader.

He measured nine foot seven inches and could have been about forty years old.

September, 1957. *Observer.*

Elephant Walk is Over

A few months ago, as you approached Trincomalee by road, you became aware of massive steel-mesh fences lining what were once the preserves of the Royal Navy.

The steel-mesh came down recently ; and the elephants have come back to the waterholes they were excluded from for so long.

It is possible to see thirty and forty of the huge beasts lumbering quietly across the road on their way to their old watering grounds.

They attempt to harm no one ; indeed it is unlikely that they are concerned at all about human spectators. They drink their fill and then they return to the jungles.

10.9.57. *Observer.*

Baby Elephant in Channel

A man set out one evening in search of his cattle. About three-fourths of a mile away

from his house, hearing the cry of an elephant, he searched and came across a seven-month old baby, separated from its mother, trapped in a channel at Kottukachchiya.

It was rescued with the help of 20 other colonists. It has several bruises on the legs and head.

15.8.57. *Morning Times.*

He Spoke too Near

The elephant "Hadju" belonged to the Company. A man named Mudiyanse was the mahout.

About a fortnight ago Mudiyanse, with whom the elephant seemed to be displeased, was riding the animal, when the wind blew Mudiyanse's shawl to the ground, Mudiyanse ordered the animal to pick up the shawl. This the elephant refused to do.

Losing his temper Mudiyanse jabbed the prong (hendu) into the elephant's body. The creature tossed the mahout off its back and then ran into the jungle.

The following day, Abraham Singho, a well-known nooser of wild elephants along with three others of the same profession, went into the jungle in search of the animal. They came across the elephant sleeping in a marsh. They decided to approach it from all sides.

Abraham Singho approached from behind and spoke to the elephant. The elephant swung round and hit Abraham Singho with its trunk.

The injured man was eventually brought to the General Hospital, Colombo, where he died.

September. *Observer.*

Woman Trampled by Wild Elephant

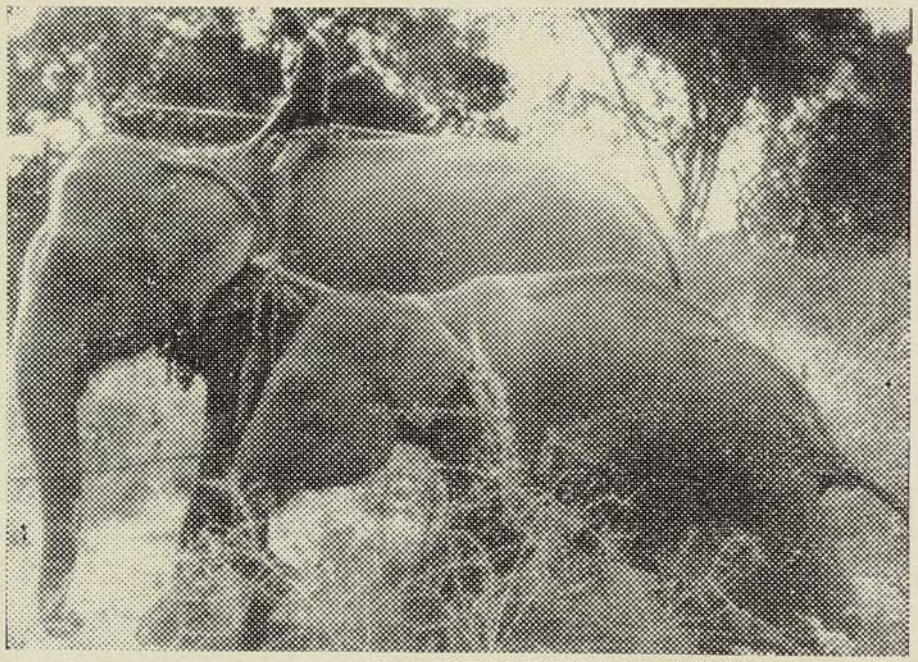
It was tragic for 29-year-old Bandara Menike that her trip to the well was made at the same time when a wild elephant tortured by thirst had left his jungle haunts in search of water nearer human habitations.

Asked by her husband, 39-year old Tissahamy, to fetch him water from the well, some 300 yards away, she ran head on into the elephant who himself had found the well after a long search.

Both had a fright. Menike raised frantic cries for her husband. The thirst-maddened animal ran into the jungle, trumpeting as he went, trampling the unfortunate woman to death.

Tissahamy told the inquirer that he had only just returned from the chena, himself hungry and thirsty. Menike left their child in his care and set out for the water.

He ran when he heard his wife's cries but there was nothing he could do. He was too late.



The smaller elephant in the picture is one of four captured

Four Elephants Noosed : One Dies Two Escape

At Hettigama, an abandoned village four miles from Ambanpola, a captured male elephant, 7 ft. 6 ins. in height, died mysteriously

shortly after its noosing on the dry sand-bed of Kokatiyawa Ela.

It appears that four professional panikkans (elephant trappers) captured the elephants using the " madu " (noose) to trap the animal's foot.

Of the four animals one escaped by breaking the " madu " rope of deer and sambhur hide ; a cow elephant chewed off the " madu " rope and obtained its release while the panikkans slept ; and the male elephant measuring 5 ft. 9 ins. is in captivity. The fee for its capture is said to be Rs. 1,000.

According to Mr. K. M. Ratnayake, Village Headman of Divullavepalata, the Government Agent, North-Western Province, has issued a permit authorising the capture of one wild elephant in the Wanni Hatpattu to Mr. A. B. Panawila, Basnayake Nilame, Mahapattini Devale, Kandy. The animal is exclusively meant for the use of the devale.

6.9.57. *Times.*

Elephants Must be Licensed

Let me congratulate the Wild Life Department for pressing for regulations calling for licensing and the registration of ownership of elephants already in captivity as a precaution against any further illicit noosing.

Due to the lack of a register of the number of domesticated elephants, it was possible for any person in this country to go to the jungle and to capture any number of elephants without the knowledge of the Wild Life Department. Certain people used to noose even baby elephants, and only one in a hundred cases was ever reported to the authorities.

It is strange that the Wild Life Department has taken such a long time to initiate this when even a dog had to be licensed in Ceylon. I don't blame anyone except the members of the public who have shown very little interest in animal welfare activities. The Government Departments cannot be any better under such circumstances.

It is my hope that Departmental red tape will not delay the proposed regulations any longer. There might be no elephants in the jungles of Ceylon for the Wild Life Department to talk about very soon unless due vigilance is shown.

JAYATISSA PERERA

Colombo. *Daily News.*

Leave Hornets Alone

R. M. Mary Nona of Ettampitiya threw a stone at a nest of well-behaved hornets. She was stung badly and treated at the Badulla Hospital.

Later she again threw a stone at the nest. This time she was stung so severely that she died.

Daily News.

Fish Choked Him to Death

A young fisherman of Pesalai, Sebamalai, was choked to death by the fish he caught.

It happened when he was drawing the fishing net from the sea. He bent over the catch and shouted " Plenty of fish." A fish suddenly jumped into Sebamalai's mouth and choked him.

When he was taken to hospital, he was dead.

Fossils and Legend

In times of floods, wayfarers passing the Salapai Aru ferry sometimes collected pieces of stone which were of the size and exact shape of crabs. Such finds were treasured with great care because they were known to contain valuable medicinal qualities.

The interest of some villagers was roused and their curiosity led them to investigate the origin of these crab-shaped stones.

Inquiries from elders living in the surrounding villages and voyages of exploration by boats up the Salapai Aru waterway followed, and it has been found that the source of these crab-

shaped stones was at Mattiaru, a stream flowing into Salapai Aru off Kuchchaveli.

Mattiaru passes a rock locally called "Nachchiya Vellattu Malai." This rock is in the shape of two huge round granite slabs placed one upon the other.

During certain seasons, a kind of fluid oozes out of a crevice in "Nachchiya Vellattu Malai" and local legend has it that any living object with which this fluid comes into contact is instantly petrified, such as fishes, crabs, lobsters, prawns and the like which are abundant hereabouts—and decades ago even deer and other wild animals!

There is no specified season or month in the year when such transformations of living objects in Mattiaru takes place.

Observer.

Log was a Python

Three constables of the Bulathsinghala Police were doing their night rounds on bicycles. One, who was riding ahead of the others, saw a log lying across the road and got off his cycle to remove it. To his consternation, it turned out to be a python. The other two constables came to his assistance and between them battered the python. It was 15 feet long and two feet in circumference.

Daily News.

The Cry Haunted a Village

For five days and nights the little hamlets of Bopitiya and Pantiya were haunted by an eerie wailing.

Frightened supertitious residents said it was the cry of the dreaded Devil Bird (Ulama) and yet it appeared so human that some of the more courageous inhabitants decided to go out in search of it. In the meantime a "Gammaduwa" was being prepared to invoke the blessings of the gods to avert the evil cry.

But the brave little band that had combed the forests at nightfall, came at the early hours of the morn, to a crest of a rock from where they heard the wailing loudest. At the bottom of a crevice they discovered an emaciated dog howling to get out. They rescued the animal with a noose.

The dog belonged to Eralis, a villager of Deberikanda, who had gone hunting five days previously. The dog had wandered into this crevice and been left behind.

September, 1957. *Observer.*

A Drop of Milk for a Hedgehog

On a warm morning I sat on a rock waiting for a pair of magpies.

The dead bracken rustled as a small brown animal suddenly shot into sight, stopping dead when it scented me.

A pointed little black nose quivered in the air, beady black eyes stared at me in shocked surprise, and I hooted with laughter.

Immediately the young hedgehog turned into an impregnable ball of prickles.

There it remained as I cast back through the ages to a world much younger than ours, warmed by a sun far hotter, a world of mammoth, giant elk, sabre-toothed tiger, and primitive man.

But the hedgehog had been firmly established before any of these came on the scene, roaming a weird, tropical undergrowth for incredible insects, yet here he was today, unchanged in a changing world, putting on the little act that had saved him through the ages.

Thinking of our garden and knowing that these little things will work like mad for a daily ration of warm milk, I dropped the prickly ball into my cartridge bag just as the forgotten magpies streaked overhead with ribald screams.

Never mind, if I'd missed them I'd gained an assistant gardener.

Now, the one defect in a hedgehog's make-up is that if he scratches his fleas he pricks his toes, and is therefore a paradise for parasites. So on arrival home we gave him a good dusting

of flea-powder without DDT, and settled the hash of his lodgers.

Shortly our prickly ball relaxed, opened one wary eye, then both, and showed an inquisitive black nose. Some warm milk worked the oracle and slowly he resumed his normal shape.

Next, he was daintily lapping with a show of pink tongue and strong white teeth. He had an alert, intelligent little face and I thought of the old countryman's story that hedgehogs milk the kine night after night.

Allowing for natural exaggeration there may be some truth in this, for they adore milk, and could quite easily suck sleeping cows.

Before the week was out we had been accepted as honorary hedgehogs and there was a noticeable reduction in the pest population as he fussed about the garden.

Snails he ate ravenously and to bursting-point, but slugs he merely destroyed and left, presenting himself without fail at the kitchen door for his daily milk ration.

It was in the spring he came to us. But as the year grew older and the days shorter again he got sluggish, until on one mournful autumn day he did not come for his milk but vanished beneath a pile of old hay in the garden. We never molested him, for these animals go into true hibernation and to disturb them may mean death.

The winter was hard and long but on a warm day the next spring we saw our hedgehog again, gaunt and untidy. Then he disappeared and we mourned him again until one day he presented himself at the kitchen door with three half-grown baby gardeners, ready to work for us in return, if we didn't mind, for a little milk.

He had been a she at the time.

THURLOW CRAIG in the *Sunday Express*.

Hunted Stag Dives in Sea

A stag, chased for nearly four hours, jumped over a lock gate into the Bristol Channel to escape the Devon and Somerset Staghunt.

By nightfall, two and a half hours later, it had not come ashore and was believed to have been swept away by the tide.

A Runnable Stag

When the pods went pop on the broom, green broom,
And apples began to be golden-skinned,
We harboured a stag in the Priory comb,
And we feathered his trail up-wind, up-wind,
We feathered his trail up-wind—
A stag of warrant, a stag, a stag,
A runnable stag, a kingly crop,
Brow, bay and tray and three on top,
A stag, a runnable stag.

Three hundred gentlemen, able to ride,
Three hundred horses as gallant and free,
Beheld him escape on the evening tide,
Far out till he sank in the Severn Sea,
Till he sank in the depths of the sea—
The stag, the buoyant stag, the stag
That slept at last in a jewelled bed
Under the sheltering oceans spread,
The stag, the runnable stag.

JOHN DAVIDSON.

Winter Airlift for Chamois

The national herd of chamois in the Swiss Alps has increased to about 6,500 head, compared with only a few hundred in the middle of the last century, mainly because of the creation of game reservations and the drastic limitation of the shooting "season" outside these areas. Shooting is generally restricted to a week a year, but this period may be extended when the number of animals in any district exceeds the available feeding.

The main enemy of the chamois is snow—when it is too deep and when it lasts too long it prevents them from finding their food; and they are also killed by avalanches.

In winter the herds generally come down the mountains and live near inhabited areas in the forests, where they find moss in the

undergrowth and where gamekeepers and the mountain villagers leave bundles of hay on which the chamois feed at night. In the Engadin last winter a chamois made friends with a goat, accompanied it to its shed and lived for several weeks with the herd. When the snow began to disappear it went back to the mountains.

Some herds stay in the higher regions, and their feeding was impossible until two years ago the alpine airman Hermann Geiger started to drop hay to some herds isolated in the glacier regions. Mr. Greiger first flies many times over the herd he intends to feed to make the animals familiar with the noise of the aircraft. Once they have got used to it he drops small bundles of hay near the herd.

After flying over the Zanfleuron glacier, the aircraft hugged a high rock wall at the foot of which one could see a dozen chamois who looked up expectantly when they heard the aircraft. The hay was duly dropped and when Mr. Geiger turned back to make a film record, the chamois were so busy eating they hardly looked up—except one old chamois who wagged his head as if in gratitude.

London Times.

His Promise to the Penguins

The name is Dr. Harry Lillie, and he is known as a friend of the whales and the seals, of the cows and the furry animals in traps.

Over a vegetarian lunch Dr. Lillie told me about his plans to travel throughout Britain lecturing to schools and whomever else will have him, and showing the films he has taken of these various encounters between man and the animals.

The theme of his lectures : that man is the most predatory and destructive of all the animals.

Dr. Lillie is no fanatic. He came to his anti-man conclusions slowly over the years and he will explain them to you with a great deal of humour.

It wasn't until after the war, when he went as medical officer with a whaling expedition to Antarctica, that he discovered what he believes to be his true purpose in life—pleading the case of the animals against predatoryman.

He was horrified at the way the whales were killed—by harpoons with explosive heads which went off inside the whales.

" It is rare for a whale to be killed immediately," he told me. " Usually the harpoon goes off in the intestines. One whale I saw took five hours to die and needed nine harpoons."

His expedition killed 1,743 whales. And there were 14 other expeditions. That adds up to a lot of dead whales. The whale oil produced—which eventually becomes margarine, among other things—is profitable to a few, but not indispensable to mankind as a whole, according to Dr. Lillie.

The contrast to the blood bespattered humans was provided by the penguins, friends of the whales, who happily splashed about in the snow without harming anyone.

It was while surrounded by these little birds on South Georgia that Dr. Lillie had his Damascus Road conversion, and he promised the penguins he would see what he could do about the whales.

Since then he has written a book " Path to Penguin City."

After the whales it was the turn of the seals. As medical officer of a sealing expedition off Newfoundland, he spent most of his time hopping from ice-floe to ice-floe with a cine-camera filming the clubbing and skinning—often before they were dead—of the young seals, and the careless and uncontrolled shooting of the older ones.

It wasn't much fun for the humans, either. " We lost three ships and 90 men," Dr. Lillie told me.

Then the fur trappers were given the same treatment. The result : 35 minutes of film guaranteed to help any husband dissuade his wife from buying that fur coat.

No organisation backs Dr. Lillie. He pays his own way by doctoring and lecturing or, in Australia, by working as a cattle drover and a lorry driver's mate.

His sense of certain laws of nature and of the power of nature to revenge herself on those who break the laws is very strong.

In Australia they had killed off a good deal of their bird life—the bustards, ibis and emu—and the result was plagues of locusts.

And in the orchards fewer birds meant more pests, which meant more insecticide spraying. This killed the earth-worms, which meant the unventilated soil became packed hard and the tree died anyway.

New Zealand transformed itself from the best forestry centre in the world to " a second-rate sheep station." In America man's exploitation of land means spreading dust bowls, and erosion is also threatening the Canadian wheat prairies.

Dr. Lillie's solution? " Our only hope," he said, " is for man to develop a reverence for all living things."

KENNETH MACKENZIE
in The *News Chronicle*.

Nigerian Wisdom

A Nigerian chief is credited with saying: " I regard all land as belonging to one large family, many of whom are dead, some are living, and millions are yet unborn." The implications of that saying are: Those dead supply the tradition, the examples, the warnings; the living supply the problems; and those yet unborn material for the theorist.

Beast and Man have Rival Claims in Serengeti

Early in 1956 the Government of Tanganyika proposed to reduce the area of the Serengeti National Park very drastically, this after earlier excisions from the original area of 1940. Not only was the area to be reduced to less than a half but the park was to become two widely separated blocks of land. The intervening several thousand square miles, were to become Masai grazing and development areas.

World opinion reacted sharply to what was considered a direct threat to the magnificent assemblages of hoofed animals which migrated over the Serengeti Plains. There was also the uncomfortable feeling that if a national park could be quietly carved up as a purely domestic issue there was no security whatever for any of the already greatly reduced stocks of the larger wild animals of Africa. The outside world has a pride in and affection for this remnant of a fauna considered the most varied and spectacular on earth within historical time.

The International Union for the Conservation of Nature (a body supported directly by many Governments and representatives of scientific opinion in ecology and conservation) was immediately concerned, and the subject naturally arose at the Union's biennial international conference at Edinburgh in June, 1956. Grateful relief was felt, therefore, when the Secretary of State for the Colonies informed the president of the conference that a commission would be set up in Tanganyika to receive evidence and make inquiry on the subject of the Serengeti National Park and its possible boundaries, before action was taken to implement the proposals contained in the White Paper of the Tanganyika Government. One member of the commission of three was to be a distinguished British biologist.

The report made to the society by Professor W. H. Pearsall, F.R.S., one of the world's leading ecologists, who accepted the society's invitation to make the survey during November and December, 1956, has just been published (Fauna Preservation Society, 5*s*.). The report will stand as a pattern of the report preliminary reconnaissance by a deeply informed impartial mind, and is the kind of document which should be produced before any political action having

far-reaching effects on land use and faunal and floral status in undeveloped territories.

The Serengeti Park stretches southeastwards for 120 miles from Lake Victoria. The strip is less than 10 miles wide near the lake, broadens to over 50 miles, and contracts to 30 miles wide at the eastern extremity, which includes the spectacular Ngorongoro Crater and the Crater Highlands rising to 13,000 feet.

Rival claims of wild herbivorous animals and of the Masai and their stock have to be considered. Both need seasonal grazing and water and if there is a sharp rise in the Masai population and their stock there is inevitable competition. The wild game do not erode the soil by their hoof action, but the closely herded mobs of heavier and clumsier-footed cattle, making their thrice-weekly treks to the water points, cause breaking of the sward and subsequent erosion.

Dr. Pearsall states *three principles* for acceptance if the Serengeti problem is to be settled :

(i) The game population must be provided with a unit enclosing a sufficient area to include the whole of their periodic cycle of movements.

(ii) Increased competition between game and Masai when in the same area is inevitable. Hence, they should ultimately occupy separate territories.

(iii) In a country like the Serengeti, most of which is marginal to human occupation, if permanent solutions are to be found, they must take account of the diverse ecological potentialities of the area.

One of the most surprising facts emerging from Dr. Pearsall's investigation is the ignorance of the migratory routes of the plains game, though the migrations themselves have been so widely described as a spectacle. It would seem that the Tanganyika Government and the park authorities have established boundaries and carried out capital works without regard to determining the routes followed by the herds, and certainly without regard to ecological potentialities.

The national park idea in Africa has suffered until now from the preponderant notion of tourist attraction and possible consequent financial gain to the territory. The animals have been expected to move through an attractive landscape almost to order like cardboard figures ; how the animals lived and subsisted during 12 months of the year has not been given much attention.

It is comprehensible, therefore, why such a remarkable landscape as that presented from the edge of the Ngorongoro Crater should be looked upon as of primary interest in the establishment of the Serengeti Park. Game within the crater was also a fine spectacle at certain times of the year. The park rest camp was established on the southern edge of the crater.

Dr. Pearsall's visit was able, by air reconnaissance, to answer his first fundamental question —where do the game go ? It would seem that the main concentrations of the plains move from the tse-tse bush country in the west to the Moru Kopjes and farther east, *but not into the Ngorongoro Crater*. The crater game move north-westward on to the plains and seem to be a separate stock. The Moru Kopjes, proposed in the White Paper to be excised, are of fundamental and nodal importance to the maintenance of the necessary cyclic unit postulated by Dr. Pearsall.

The area is a frontier zone between forest and grassland and would be expected to fall rapidly to a low level of production of water and grazing. In fact, serious damage has already been done, and freedom from fire and continuous grazing is needed if the woodlands are to be regenerated and the soil surface reconstituted. The White Paper proposals imply that Masai are to be excluded from the Ngorongoro Crater on the understanding that the Moru Kopjes will be developed for them. Dr. Pearsall considers the Moru will not withstand continued occupation and that the present fertility is residual from primary exploitation.

Dr. Pearsall advises a comprehensive scheme

of grassland and forest conservation in the area. This, if successful, would maintain the habitat for the Masai.

Dr. Pearsall's recommendations provide a workable solution to the Serengeti problem for all parties by clarifying conceptions of national parks, wild life reserves and possible development areas, and the criteria used are the ecological relationships and potentialities. The Masai would lose nothing except the questionable right to ruin the habitat for their posterity. The new boundaries would help both the Masai and the game animals.

From *London Times.*

The Serengeti National Park

The Serengeti National Park covers about 4,500 square miles near the northern border of Tanganyika, east of Lake Victoria. It consists of open, rolling plains in the centre, impenetrable jungle—domain of the tsetse fly—in the west and, in the east, crater highlands which form important catchment areas. Some of the greatest abundance of game animals in the world are to be found there along with the native pastoral tribes, the Masai, and their cattle, but it is hardly surprising to learn that this co-existence of man and wild life has posed several problems which became crucial a few years ago. On the one hand there are the Masai, and on the other, there is the protected status of the reserve and of the seasonally migrating fauna in search of water pools, which the inhabitants jealously guard for their domestic animals whose increasing number has caused serious erosion in the Central Plains due to overgrazing and fires.

On learning of the Government of Tanganyika's intention to give way to the Masai appeals by breaking up the National Park, an American expedition made investigations on the spot and thereafter, the Union's Vice-President contacted the British colonial authorities to request that no decision should be taken on dividing the park until an ecological study of the present conditions of the region had been carried out. The Fauna Preservation Society of Great Britain then agreed to follow up by organizing a scientific study of the area. This task was entrusted to Professor W. H. Pearsall, of London University, who benefited from the full support and collaboration of the Government and of the official scientists in Tanganyika. Professor Pearsall has just published his report stressing very emphatically that the three areas of the Serengeti form an indivisible ecological whole and proposing that the park boundaries should be re-drawn so that the Masai have a region of their own outside the north-eastern boundary and elsewhere, and that systematic attempts be made to develop the Masai-occupied areas in regard to water, grassland and range management. The Central Plains and western regions would make up the National Park along with the craters in the east, and be linked to the rest of the reserve by a corridor which, if the craters are to be maintained as a tourist attraction, should have limited human access. It would ultimately be essential to exclude the Masai from the centre of the reserve. In any case, attempts should be made now to persuade them of their duties and obligations towards the land. Grazing rights will have to be vested in heads of families or tribes who can be held responsible for the way in which the land is treated.

The Government of Tanganyika has agreed to put these conclusions of an objective ecologist to the committee in charge of the National Park's fate.

From the Bulletin of the *International Union for Conservation of Nature and Natural Resources.*

Elephants in Africa

The trumpeting, squealing or shrieking of an elephant, each conveys a separate and distinct type of information to the hearer, and if skilled in jungle lore, he can interpret

with considerable accuracy what is going on in the mind of the animal. He can also predict with equal exactness what line of action the elephant may follow.

The African and Indian or Asiatic species differ considerably in size, shape, and habits. The low point of an African elephant's back line is the highest point of that of the Indian elephant. The African elephant's ear and tusks are larger and his tusks usually spread wider at the points instead of coming together. His disposition is generally held to be wilder than that of the Indian elephant; he weighs more than the Indian elephant; his trunk is more deeply grooved and has a more prehensile or finger-like process at the extremity, actually a second "lip" at the end enabling him to deal with the smallest, most delicate and fragile objects. The Asiatic elephant on the other hand, has only one of these fighter-like processes which is at the tip of the trunk opening.

Elephants display great variety in their speed and method of travel. They can move through the jungle with incredible swiftness and in almost complete silence, if there is any dew or moisture in the vegetation. Even the rumblings of an elephant's stomach, which are almost audible in a feeding herd, can be silenced at will if the animal becomes suspicious. In the dry season, the passing of elephants through the forest sounds like the approach of a violent wind storm as their feet rustle the dry leaves on the ground and their bodies rub against the parched foliage of bushes and trees.

The elephant can travel through swamps and trails deep in mud with phenomenal ease. This is due to the extraordinary construction of the elephant's foot which is encased in a bag-like skin with heavily padded bottom. It possesses some of the characteristics of a non-skid tyre. An elephant walks on his toes which forms the anterior part of the foot. The bones of the foot run back and also up. Underneath these bones at the posterior part of the foot is a gelatinous substance which is an effective shock absorber. When the elephant places his foot, it swells out. When the weight is removed, it contracts. As a consequence an elephant may sink four feet deep in a swamp, but the minute he begins to lift his legs, his feet will contract and without suction they will come out of the hole they have made. The elephant's leg is practically a perpendicular shaft. The muscular effort required for him is less than for ordinary animals. This is one of the reasons why he can go for such a long time without lying down. The French Explorer, Edouard Foa has said that when fatigued by a long march in the sun, the elephant will obtain water with his trunk from his own stomach, which holds ten gallons, and will refresh his head and shoulders.

Elephants are experts in ascending the steepest river banks. In descending such a cut bank, they double their hind legs under them and slide easily down to the stream.

Carl Akeley had seen an elephant that carried large tusks weighing perhaps eighty pounds each, resting in the forest at noon after a morning of feeding; the animal had sidled up to a tree which had almost a horizontal branch growing about eight feet from the ground, and he had placed his tusks across this limb resting their weight on it. And what an even greater relief such a resting method would be to those elephants whose tusks weigh more than one hundred pounds each. Imagine also that largest of all tusks known, the one carried by the elephant from East Central Africa in the collection of Sir E. C. Loder. It measures ten feet four inches in length with a girth of 26 inches and weighs 235 pounds; or the load of ivory borne by the Kenya elephant whose single tusk, now in the British Museum, weighs 228 pounds, with a length of 10 feet, $2\frac{1}{2}$ inches and the greatest circumference of $24\frac{1}{2}$ inches. It is the second largest ever found in Africa. The tusks of the old female resting under the tree were conspicuously long and as her head was drooping they might have easily touched the ground. It is frequently asserted that elephants never

lie down to rest. That this is not the case was proved by the late Dr. Heller, most learned and reliable of naturalists who accompanied the Smithsonian African Expedition of Theodore Roosevelt . . . In the desert region of the Northern Uas-Nyiro, Heller saw elephants lying down, but it was an extraordinary sight. Native Ndorobo and old White Hunters have related the same occurrence but have always stated that it was something curious and unusual.

From *Congo Eden*, by Mary L. Jobe Akeley

Grass Burning in Africa

There is a difference of opinion between Belgian Congo conservationists and British protectionists in Kenya and Uganda on the question of grass burning in its relation to the increase or decrease of the ungulates. The policy of the Albert National Park is based on its being considered as a "Reserve Integrale," in which nature is allowed full sway without interference by men. To this end no faunal control is carried out in the park and even sick animals are left to recover or not as nature dictates. Throughout Africa, from time immemorial, the natives have been accustomed to setting fire to their grazing lands. This is done just before the rains are expected. And when the grass is burnt, the new shoots spring up quickly and furnish forage for the native herds and flocks. But if the rains do not come on schedule the animals will eat not only the new shoots of grass but also the roots. In 1936, conservationists skilled in plant ecology and particularly General Smuts were travelling throughout the Union urging the stock raising farm owners to refrain from grass burning except at long intervals when old grass was of sufficient age and growth and of a character so sturdy and luxuriant that its roots would not be destroyed by burning. They were earnestly requested not to burn the veld until the new grass was firmly established. Captain Keith Caldwell in his report on his faunal survey in 1947 of East and Central Africa, disagrees with the Belgian view of maintaining the "Reserve Integrale," and says, "It should not be forgotten that grass has been regularly burned throughout tropical Africa ever since men understood the use of fire. The condition of vegetation now being brought into being are unlikely to have existed since an early date and might even be considered artificial." He believes *controlled* and *well-advised* burning would lead to a greater food supply, and in consequence, to an increase of wild life. Thus we find two opinions of conservation.

Conserving Water in Australia

Tests just completed by the Commonwealth scientific and industrial research organization at St. Stephen's Creek reservoir, Broken Hill's main water supply, show that by feeding on to the surface of the reservoir in a solvent a solution of cetyl alcohol, a chemical extracted from sperm whale oil, loss of water by evaporation can be substantially limited.

At Broken Hill a satisfactory film of cetyl alcohol has been maintained over the reservoir for over three months, in spite of exceptionally high wind velocities, and about 1 ft. of evaporation has been saved over an average area of 930 acres.

Difficulties may be encountered in applying the process to the bigger water storages, but the results achieved suggest that these will be overcome after further research. Should success be achieved, the process will be immensely valuable not only to Australia but oversea also.

London Times.

Filter-feeding Flamingos

New light has just been thrown on one of the most extraordinary structures in the animal kingdom, the bill of the flamingos.

When these birds feed, the long neck bends gracefully down and the inverted, backwardly directed bill swings gently to and fro. As

befits so strange a posture, the mode of feeding is unique among birds, and in all other air-breathing vertebrates resembles only that found in the largest of all creatures, the whalebone whales. Both feed by filtering great quantities of water and collecting the contained, often minute life.

In the flamingos the box-like bill provides a beautiful mechanism for this purpose. It is bent in the middle, but is opened by raising the upper jaw, producing a slit-like gape through which water enters. Being bent, the tips of the jaws cannot diverge as they do in a straight bill, while the serrated margins prevent any but small particles from being carried in.

Within the bill are series of horny ridges, forming leaflets, hooks or platelets, which are the filters. The tongue forms a piston which runs backward and forward in a narrow groove within the lower jaw. As it draws back, water enters past the marginal excluders. When it is forced forward, water is expelled in a sudden jet. Food particles are retained on the filters, and are later swallowed with the help of backwardly directed spines on the tongue. The whole process may be undergone as often as four times a second.

All of this has now been described in far more illuminating detail than ever before by Miss Penelope Jenkin, who first became interested in this matter when studying certain lakes in Kenya.

There she found great flocks of the Greater Flamingo of the Old World, and of the Lesser Flamingo. The former is well known—it is the species found in the Camargue—the salt marshes of the Rhone delta—but it also ranges as far as South West Africa, India and Mongolia. It feeds on such things as insect larvae and seeds, but, in default of anything better, may swallow mud rich in organic matter.

But the Lesser Flamingo, as Miss Jenkin discovered, has a filtering mechanism of such precision that it feeds on excessively minute plants. The one bird moves its bill to and fro on the bottom, filtering what it stirs from there, the other keeps clear of the bottom to collect the plants suspended in the water. Though living together, there is thus no competition between the two flamingos.

All flamingos—and there are four species in Central and South America, as well as the two in the Old World—appear to be either coarse or fine filterers, the first group having a shallow-keeled bill and the second a deep-keeled bill.

Although the process of feeding cannot be observed within the bill, it can be deduced from the nature of the stomach contents and from the grade of grit within the gizzard.

In the nature of the bill lies also the explanation of the distribution of flamingos. They need enormous concentrations of minute animals or plants. The only suitable feeding grounds are saline lagoons and the salt lakes which fringe the great deserts. There the great flocks of flamingos congregate, each with downward-hung head and actively working bill sifting out the countless millions of minute organisms which it is so beautifully adapted to collect.

C. M. YONGE in *London Observer*.

Appeal to "Sportsmen" in Iraq

In a country as big as Iraq, conservation of wild life must depend on the conscience of the people, rather than on any action which can be taken by the authorities. This article is being written as an appeal to the conscience of groups of "sportsmen" in Central Iraq who have been shooting black partridge since last month. The legal black partridge season does not open until October 15.

Game birds and animals do not only provide healthy sport; they are part of the natural balance of the countryside, the destruction of which can have catastrophic results.

If illegal shooting heavily reduces the partridge population in a given area the predators will have to find alternative food supplies. Experience in other countries has shown con-

clusively that the new source is always largely domestic livestock—poultry, lambs and the like. Which means that you—the eater of eggs and mutton—have to pay for the " sport " of the lawbreakers.

Who are these people who blatantly ignore the law of the country? Some Iraqis are involved, but the worst offenders are Americans and British. In their own countries they would be heavily fined or sent to jail for such offences. Indeed, so great is the weight of public opinion against this type of thing that they would not dare break the law at home.

The law is not being broken in ignorance. The foreigners involved all know that to shoot partridge at this time of the year means that the young birds, not strong on the wing, will be destroyed in large numbers, killing off next year's breeding stock for the area. This process does not take long to destroy the entire stock of an area, since partridge do not travel any great distance away from their birthplace.

The law-breakers, fortunately, are in a minority. Most foreigners who shoot here know that the laws of conservation are wise, and that if they want to shoot before the partridge season opens, there is plenty of good legal sport to be had with pigeon, sandgrouse and vermin.

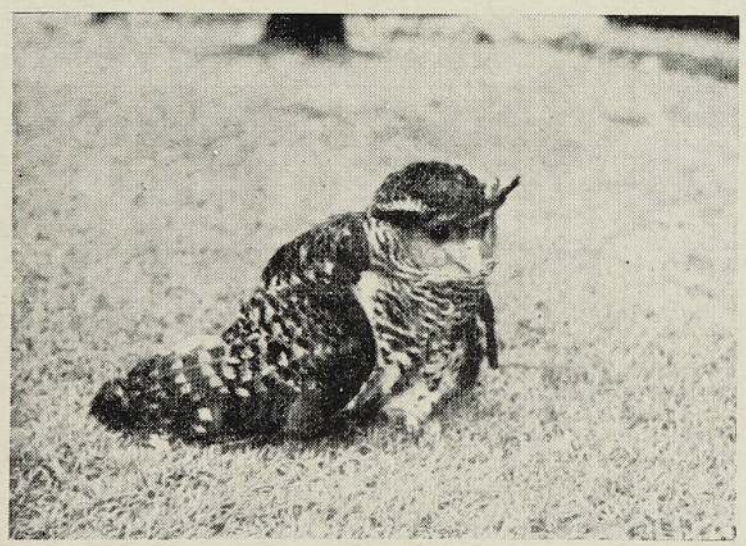
The Iraq Times.

Correspondence

Devil Bird

Sir,

On the night of Thursday, 22nd August, I shot a Forest Eagle Owl under the most convincing circumstances. I located the tree from which the cries came, an " Atamba " situated in front of my bungalow. The cries were " hum—hum—hum—hum," a pause, then, " hum—hum—hum."



Forest Eagle Owl

It will be seen from *Loris* of June, 1953, (Vol. VI) that I sent Dr. R. L. Spittel a specimen of a male Legge's Hawk Eagle. This bird also made the " hoo " cry which was higher pitched and of greater volume than this Forest Eagle Owl. The variation in their respective cries—the Hawk Eagle was calling " buk—buk—buk—buk."

I have now two claimants for the title of " Devil Bird " and it will be most interesting to know which of the two is entitled to this honour.

R. HARRIS.

Vykumbara Estate,
Passara.

Note by Mr. C. E. Norris.—I saw this bird and confirm it was an adult Forest Eagle Owl as the illustration will show, it had luckily only been winged, so there is hope it will survive and can be released when the wing is healed. (The bird did fly away strongly when released). Here again is inconclusive evidence as to the identity of the Devil Bird as the bird was only heard uttering the " Hoo " cry and not the strangulation shrieks. Mr. Van Cuylenberg, who resided in this bungalow before Mr.

Harris informed me he was continually hearing this call but was never able to see the bird concerned. During the dry weather period, Mr. Van Cuylenberg tells me, he heard screams; so it is likely, but by no means definite, it was the Forest Eagle Owl who was the perpetrator.

Mr. Van Cuylenberg also informs me it sounded as though two birds were making this call, they worked up the valley towards the bungalow answering each other. The breeding season is stated to be in April and May; so I do not think the calls heard by Mr. Van Cuylenberg would be mating calls unless, of course, these birds were breeding later in the year.

So many reports are received which deal only with the "Hoo" cries that it is difficult to arrive at any conclusive answer as to the identity of the Devil Bird. There are a number of birds which make weird calls at night and the "Hoo" cry of Owls and Hawk Eagles are all considered by villagers as sounds of ill omen.

Ed.—Having received Mr. Harris's letter and Mr. Norris's remarks, I wrote to Mr. Harris asking him to further elucidate what he calls the "hoo" cry, as the "hum-hum-hum" he speaks of cannot be called a "hoo." He replied as follows, giving a very clear description of the cries he heard :—

Sir,

I was pleased to hear from you regarding the Forest Eagle Owl I shot recently here.

In describing the cry of the Forest Eagle Owl, I only mentioned the notes "hum-hum-hum-hum—hum-hum-hum," as these notes were new to me. Actually, the bird was making the "hoo" cry for quite a while before it broke into these notes new to me, *i.e.*, "hum-hum-hum-hum—hum-hum-hum." In my letter to Mr. Norris, I didn't mention the "hoo" cry as it is associated with quite a few of the Eagles I know of. I mentioned those particular notes because they were something novel to me.

This particular bird's "hoo" cry was certainly *not so high-pitched as those I heard from the specimen of Legge's Hawk Eagle* I sent you some time back. *The "hoo" of Legge's Hawk Eagle has more volume in it and is far more piercing than the "hoo" uttered by the Forest Eagle Owl.* The queer "hum-hum-hum-hum—hum-hum-hum" note of the Forest Eagle Owl cannot, by any stretch of imagination, be called eerie. It is too tame for that, but it is quite audible for a long way around—very base though.

I have read with great interest your evidence pertaining to the "Devil Bird" in your 2nd edition of "Far-off Things," a copy of which I now have in my possession.

This certainly is a very interesting controversy.

Passara, R. HARRIS.
18th October, 1957.

Note by Editor.—Mr. Harris is unique in that he has not only heard the cries of both the Forest Eagle Owl and Legge's Hawk-Eagle, the two contenders to the title of Devil Bird, but has carefully listened to them and recorded them at the time; he has also shot the birds and had them identified. His previous description of the *cry of Legge's Hawk-Eagle* is as follows: "The 'hoo' cry starts off with a rather low 'hoo' repeated every five minutes or so. The note then rises in volume and could be heard for great distances around. It reminds me of the 'hoo' a stranded man would emit at full blast. The bird makes another queer sound too, and that in between the 'hoos.' This sounds like a low throatal grumble and then goes 'Buk-buk-buk-buk-buk' down the scale. It is a queer and weird sound."

In the last issue of *Loris* (Vol. VII, No. 5, p. 373), Mr. Philip Crowe has something interesting to say: "The sun was setting (on the Menik Ganga) when we heard a strange eerie cry. Babun (the game guard) said *Ulama* which Bill Phillips translated as Devil Bird, but added that the cry was probably made by the Ceylon Hawk Eagle, and whether or not it was the Evil one of legend, he was not prepared to say. Later we saw a Hawk Eagle sitting on a dead tree."

The *Devil Bird (Ulama) of legend*—that is the point. The legend attributes to it a *median crest* like the Hawk Eagle's, not the bilateral ear-tufts like the Forest Eagle Owl's. The latter may be, and no doubt is, accepted as the Devil Bird up-country. But the low-country *Ulama* of tradition is, from all evidence, the Hawk Eagle (Ceylon or Legge's).

Dead Deer with Antlers Interlocked

Sir,

Deer are known to fight viciously with other males, particularly during the mating season. Many of your readers have, no doubt, seen bucks fighting each other, and many a sportsman in the jungle has been puzzled by the sound of the clash of antlers when the males are engaged in a fight for the custody of a harem.

In August this year at Katagamuwa our party found two dead deer with their antlers interlocked. They had been dead, hardly six hours previously as *rigor mortis* had not set in, and their muzzles were quite moist with blood oozing out of the nostrils of one. They were in very good condition and so lifelike (as can

Photo by C. de S. Wijeratne

be seen from the photographs) that Celie who spotted them drew our attention to them by saying that there were two deer sleeping. Their antlers had become so entangled in fighting that the animals had been unable to free themselves. A tine of one deer had pierced the shoulder of the other.

It must have been a ghastly death, for unlike falling prey to a leopard or the sportsman's rifle, death by starvation, thirst and exhaustion must have been long drawn out.

L. ANDRADO.

Our Trip Down South

Sir,

We were looking forward to our August school holidays as we were to be taken on a trip to Hambantota to see elephants.

After breakfast we went to Malalla Kalapuwa which is about eight miles from Hambantota. The place was very dry and the grass was brown and dried up. We saw a number of cormorants and pelicans fishing in the kalapuwa. There were a few black-winged stilts along the edge of the kalapuwa. When we passed close to them a stilt flew up and kept flying over us and scolding us all the time. After a little while we saw a young chick run out of the edge onto the water. One of us ran up and caught this chick which, instead of hiding, at once ran across into the deep stream. After Daddy took pictures of this downy little fellow we released it. We looked around and discovered another chick which ran along the bank. During this time both parents flew above us and settled in the water when we got into the Land Rover.

The next day we went to Wirawila Bird Sanctuary. There was very little water in the tank and when we were on the bund we saw a herd of thirty to fifty deer come down from the jungle to drink water. There were white egrets, painted storks, snake birds, open-billed storks and some purple herons. There were a number of men catching fish in this tank.

We went next to Katagamuwa where we had lunch by the tank. On the way, close to the tank we found two deer who had fought each other and whose horns had got locked. We were very sorry to see those two beautiful deer lying dead together. We stayed at this tank till 6 o'clock but as no elephants came to drink water we left Katagamuwa. We saw a number of monkeys, pigs and a few herds of deer before we left.

We were very sorry we had not seen elephants; so the next evening we went to Palatupana. We were not allowed to go into the National Park as it is closed to visitors in August and September. The open country around Palatupana was covered with elephant droppings.

We went to a lovely spot on the beach where the lagoon meets the sea and there we saw a number of big pigs.

The next day we had to leave and sadly said goodbye to Hambantota and the jungles.

PAMELA WIJEYERATNE.

12 years.

Poaching

Sir,

The enclosed cutting from the " Daily News " of the 10th October, 1957, speaks for itself :—

Hunters Roam the Jungles

Hunting of wild animals is rampant in the Wanni area.

Groups of hunters who come here from outstations are daily seen roaming the jungles at nights and ambushing near tanks where water is available.

Deer, sambhur and wild boar are trapped at the tanks and killed.

Ammunition for these hunters is readily available here.

Poaching of game apparently continues, in spite of the ban on all game licences for 1957, and the poachers are probably having their most profitable year in history.

This state of affairs will continue until the ban on licences is lifted and the legitimate sportsman is allowed to shoot during the open season, as it is a well-known fact that the sportsman who shoots on a licence, shoots only what he is permitted to shoot, and the mere fact of him being in the jungles, is the greatest deterrent there is to poachers.

J. MANSERGH HODGSON.

Badulla, 12.10.57.

Quis Custodiet Ipsos Custodes ?

There are a large number of supposedly educated and civilized people in this Island whose first instinct on seeing an animal or bird is to shoot it on the spot. There are also many others who, while not going to this extreme, shoot to a greater or lesser extent—for fun. This strikes me as being rather primitive.

The question of the preservation of Ceylon's wild life has loomed large in recent years in the minds of all those interested in the subject and also in the minds of those intelligent enough to realize what a desolate place the country would be without it. It is, I think, generally known now that the faunal and avifaunal population of Ceylon has been steadily declining for the past half century, and while I would be the first to admit that many factors besides indiscriminate shooting have contributed to this state of affairs, it would be idle to deny that shooting does not have a drastically detrimental effect—and especially was this so in the case of the elephant.

I believe that those people higher in the social scale should set an example to their less fortunate neighbours (I am particularly thinking of the jungle villager) by refraining from shooting, *even of a legally legitimate kind*. I may be wrong, but I think that to a jungle villager shooting is just shooting, no matter what is on the receiving end of the shot, a snipe, or an elephant. He does not discriminate between legally protected game and unprotected, and neither do the close or open seasons mean very much to him for the simple reason that he has not been taught. If he sees his social superiors shooting birds and animals, he will do likewise. It is to him a very much easier way of earning a living than cultivating some chena or paddy field.

In the planting community I know that there are petty law-breakers who do a great amount of *moral* damage, and who are fully aware that they are breaking the law. Some openly admit to shooting from cars or jeeps, or shooting by flashlight over a water-hole, or disregarding the close seasons. They think it amusing ; rather a thing to boast about than be ashamed of, and they regard law abiding people as being rather " goody-goody." Even those who do not actually break the law adopt to my mind a fundamentally wrong attitude. Many is the time I have heard someone say " I saw a leopard by the roadside coming home last night : a pity I had no gun with me." A good camera costs no more than a good gun or rifle ; why can people not film and photograph animals and leave them unharmed for other people to see and enjoy ?

A large proportion of people, it is true, abide by the game and wild life laws, but as I have tried to point out, I do not consider this to be enough ; it is a moral example one should set. As I have said, there are enough people as it is who are not even law-abiding, and I have been disgusted to hear that even some of those whose business it is to uphold and enforce the laws are not exempt from this number.

If this is so, who shall guard the guardians themselves ?

D. L. Ebbels.

From a Friend Abroad

Sir,

My June *Loris* arrived yesterday morning. A most interesting number and I congratulate you on the high standard which *Loris* always maintains. It is good to learn that a serious effort is being made at last to suppress dynamiting. In England our trouble is river pollution owing to efflux from factories and sewage farms falling into the rivers and making it impossible for fish life to survive. I am glad to say that public opinion has been roused and that the Courts too are taking strong action to stop this practice. With all good wishes from :

Gerald Pippet.

Haulmere, Surrey.

Ed.—Thank you Mr. Pippet for your continued interest in *Loris* and the many snips you send us from time to time.

BOOK REVIEW

Some Extinct Elephants, their Relatives and the Two Living Species by **P. E. P. Deraniyagala,** *Director, National Museums, Ceylon.*

THIS book, as its title implies, is a treatise on elephants both extinct and living. It is obtainable at the Colombo Museum for Rs. 6/-.

It is primarily a scientific treatise bristling with Orders, Suborders, Families, Subfamilies, Latin nomenclature, Tables, etc. This is somewhat confusingly intermingled with matter of general interest. And though the reader may sometimes find it difficult to see the common or garden wood for the scientific trees, he will have no trouble, once he grasps the layout of the text, to find the information he seeks, and to enjoy the author's lucid and often vigorous descriptions.

Almost half the book consists of illustrations, both photographic and drawings by the author, some of which are intensely dramatic, such as fighting elephants, scenes at kraals, and the one of the author's narrow escape from a charging elephant.

We learn much from these engrossing pages. *Most of what I shall now say is in the nature of quotation.*—

The evolution of the elephant (*Proboscidea*) dates back to the Eocene Era when they existed as animals not much larger than pigs with elongated noses. In the course of centuries the body underwent a series of remarkable changes. The limbs became columnar to support the increasing weight of the body, the coating of hair became scantier, and the tail began shortening. The skull enlarged to retain the heavy tusks and trunk.

The extinct elephants of Africa as found in their fossiliferous sites are described.

The two survivors of the great order of Proboscidea are *Elephas Maximus* of Asia and *Loxodonta Africana* of Africa.

Elephants vary in the proportionate size of the head to the body, of the trunk to the head, the development of the two domes at the vertex, ear shape, tusk shape, outline of curvature along the back, tail length, size of foot pad, number of hoof nails (usually 5 in. each forefoot

and 4 in. each hind one ; but an occasional animal possesses 5 on every limb).

These characteristics have led to the recognition from earliest times in India and Ceylon of numerous subvarieties which, except for five, scientists generally consider instances of individual variation.

Elephas Maximus occurs in many parts of Asia which have also possessed extinct species of hippopotamus—as in Java, Burma, India, Ceylon and Mesopotamia, both animals being very partial to lakes and swamps. The disappearance of the more aquatic hippo occurred before the arrival of the less aquatic elephant, which in its turn disappeared before the spread of arid conditions. These whether natural, or induced by man's deforestation, coupled with his hunting activities, have exterminated *Elephas Maximus* from Mesopotamia, Persia, Java, and extensive tracts of India and China within historic times.

The Asian elephant is very attached to its particular area and returns to it so persistently that "rogue" elephants, although shot at repeatedly, refuse to abandon their areas and are eventually killed in them—as we in Ceylon know only too well.

Ceylon's elephants are generally tuskless (aliyas), whereas nearly all elephants in Sumatra are tuskers. Tushes (the usual condition in the Ceylon male) are much shorter than tusks.

Depigmentation (white spots and blotches), which appears with increasing age, is another subspecific character most strongly marked in the Ceylon and South Indian races.

Size diminishes towards the east. The largest animals in eastern countries are those of Ceylon, India and Assam. The Burmese are smaller, the Malayan even more so, and the smallest are found in Borneo.

In Ceylon the most massive is the swamp elephant of the Mahaweli flood plains. Undersized individuals or dwarfs (Ruhunugateya) do occur, about 6 feet at the withers.

Man has forced the elephant from the areas of heavy rainfall into the more arid tracts which are less congenial to this water-loving animal.

Migration.—In Ceylon the range of migration is about 60 miles and is influenced by :

(*a*) A large gadfly (ulmassa), (*b*) the seasonal ripening of fruit such as woodapple, and (*c*) extreme drought which forces herds to follow the rivers and ascend into the hills.

Temperamentally elephants fall into two main categories : (*a*) placid, (*b*) nervous.

Elephants that rock their heads up and down, and from side to side, and also swing their bodies to and fro, are neurotic and are apt to become dangerous and develop into man killers; so is an elephant which carries a piece of stick or stone in its mouth.

Must or *Musth* commences as an oily exudation from swollen temporal glands. It is common in males, rare in females. It develops about the 18th year, and appears annually, lasting from 10 days to 2 months. It ebbs in intensity after middle age.

During must the elephant is extremely irritable and dangerous. He is very emaciated at the end of it.

In killing humans elephants employ various methods, such as striking him against its sides or a tree or on the ground, stamping or kneeling on him, placing a forefoot on one limb and ripping off its fellow with its trunk, kicking the victim back and forth between the fore and hind limbs, flinging him with a blow on the trunk, and hurling a log or stone at him.

Some animals cover up the corpse with branches torn off trees.

In *intelligence* the elephant exceeds all other herbivores.

It is very short-sighted being unable to see clearly beyond 30 yards unless the object is large and erect. But its smell and hearing are highly developed. It is also sensitive to ground vibrations, such as the thud of a running man ; this being conveyed through its feet and by placing the trunk on the ground.

A human on being charged can escape (as many have done) by falling flat behind a bush or tree stump, and lying still. If he stands he is readily detected.

Reproduction.—Female elephants begin to breed when 8 or 9 years old, and continue to do so until very late in life. The period of gestation is about 20-21 months.

Elephants live to about 70 years (the human life span); and under optimum forage conditions to 120 years.

Herds are generally led by a large female, though actually controlled by a powerful bull that keeps in the background.

Elephants in herd rarely take the initiative in charging a man, but solitary animals may, and even these generally bolt if shouted at loudly.

Mr. Deraniyagala deals very fully with the capture of elephants from early times to the present day. The behaviour of elephants in kraals is graphically described and vigorously illustrated.

Regarding the *future of elephants,* Mr. Deraniyagala sounded a warning in 1949 that man will exterminate the elephant (presumably throughout the world) before the lapse of two centuries, but it is possible that the period will be considerably shorter—especially in a small and rapidly developing island like Ceylon.

Man's numerical increase and the consequent deforestation of many countries are the two chief factors in its extermination—and, says the author, the only feasible method of prolonging its existence is to introduce it to the vast Amazonian forests of South America.

But that is for the future, and is a counsel of despair. As far as we in Ceylon at the present time are concerned, we should strive by all the means in our power to perpetuate as long as possible this mighty heritage that is ours.

R. L. S.

Dehiwala Zoo by **Aubrey Weinman,** *Director, Zoological Gardens.* Ceylon Government Press Re. 1.

NO one is better qualified than the author of this handy book to write about the Zoo that his loving care and industry have made such an asset to Ceylon, and so famous abroad. All visitors to the Dehiwala Zoo, whether of the Island or from overseas, have expressed nothing but admiration for the picturesque layout of the gardens, and the diversity and condition of the animals, birds, reptiles and fishes exhibited.

In a letter to the reviewer the author says, 'This book does not claim to be a scientific one on animals, nor is it a guide-book. It is written with one object: to provide visitors with a convenient book of reference before, during, and after visits to the Zoo. It does that and more, for it serves as an introduction to natural history, and will certainly foster an interest in wild life especially in the young.

To achieve that object, this well-produced, pocket-sized manual of 167 pages, profusely illustrated (some in colour) is priced at the ridiculously low figure of one rupee! It should sell like hot cakes, and reprints will be called for.

A word of criticism: just a few of the illustrations were poor—for instance, the performing elephants on pages 65 and 68; also there are too many pictures of some of the animals—10 of elephants and 4 of giraffes. Some of these should be omitted in future editions to be in keeping with the conciseness and clarity of the admirable text. The coloured map too is rather confusing and should be replaced by a clearer one.

The scope of the book is comprehensive: mammals, birds, reptiles, amphibians and fishes are all dealt with under their appropriate sections. Animal feeding and the treatment of sick animals are included. Finally, there is a horticultural section that gives a full list (of both scientific and common names) of the flowering, fruit and shade trees, orchids, pot plants and palms.

This is indeed a book to buy, and is within the reach of even the school boy.

R. L. S.

MINUTES OF THE SIXTY-FOURTH ANNUAL GENERAL MEETING OF THE WILD LIFE PROTECTION SOCIETY OF CEYLON HELD AT THE QUEEN'S HOTEL, KANDY, ON 21st DECEMBER, 1957, AT 5-30 P.M.

Present.—Dr. R. L. Spittel, in the Chair, 41 members and guests.

Letters regretting their inability to attend were received from:—H.E. The Governor-General, The Hon. The PrimeMinister, Messrs. H. I. Wanigasekera, Major A. N. Weinman, Col. R. C. Wall, S. L. Ratwatte, D. B. Ellapola, Stanley Dias, Dr. C. H. Holmes, W. W. Beling, Douglas Austin, Edmund de Zilva, Edy Thomas.

1. The Notice calling the meeting was read.

The President wished to record with regret the deaths of the following members and asked the meeting to rise in the usual manner as a mark of respect:—Mrs. R. Morgan Davies, Mrs. O. P. Rust, Messrs. R. P. Gaddum, Donald Obeyesekera, J. Graham Bell, W. Raymond-Jacks, A. K. Will, F. J. Hawkes, H. T. Meldrum and W. Francis Jones.

2. The Minutes of the 63rd Annual General Meeting and the Half Yearly General Meeting held on the 20th July, 1957, were duly confirmed.

3. In moving the adoption of the statement of Accounts for the year 1956-57, the President, **Dr. R. L. Spittel,** said:

"At our Annual General Meeting in Colombo, last December, I said:

"If by the end of the coming year our Society shall have contributed, in however small a measure, towards the attainment of *two main objectives*, namely the *better protection of our elephants* and the long overdue *amendments to our wild life laws*, then we shall have achieved something worthy of our Society."

I am sorry to say that hope has not been fulfilled in either respect—but it was not for want of trying.

We have had at least half a dozen meetings of a sub-committee to frame amendments to the Fauna and Flora Protection Ordinance of 1938—but have been unable to get them put into legal shape for Government enactment.

We must attribute the failure to the unsettled state of the Wild Life Department following the retirement of the late Warden, Mr. C. W. Nicholas. Now that a permanent successor, Mr. J. A. de Silva, has been appointed, there should be no further delay.

Here, the Fisheries Department has gained a march on us. You have no doubt read in "Loris" of last June the extracts we published from the *Amended Fisheries Ordinance of 1956*. By those Amendments the horrible practices of fish dynamiters are being considerably curtailed. It is now possible to prosecute them with some chance of success, for any officer appointed under this Ordinance is empowered to *seize and detain* any boat, net or vehicle used in connection with the commission of the offence, or any fish taken in the course of such commission.

The operative words are 'seize and detain' to replace the futile words 'stop and search' of the old ordinance which got us nowhere. That is just what we want in our Fauna and Flora Ordinance to enable us to curtail the heinous activities of 'spotlighters,' and commercial poachers in the months of drought. Our Range guards will then be able to secure the requisite evidence to ensure conviction.

It has been rightly said that man is the most predatory and destructive of all animals. Several species have been rendered extinct by him in historical times. And others—such as the bison and koala, whales and seals—threatened with extinction have been saved just in time. This is due to the tendency of man within the last 50 years to be wild life minded, and imbued with the principle that no species, now existing upon earth, should be allowed to disappear.

We, of course, speak of these matters in the context of our little day, while realising that in the long march of ages many species that once roamed the earth, such as the dinosaurs and the mastadons have ceased to be, and even some races of man.

A Nigerian chief has said: "I regard all land as belonging to one large family, many of whom are dead, some are living, and millions are yet unborn." The dead supply the tradition, the example, the warning; the living have the problems; and those yet unborn the heritage we pass on to them.

The heritage we are most concerned about at present are our **elephants**. They are our problem. There can be no lover of Nature in this land who is not acutely aware of the danger to our elephants—the pride of our land. We, of this Society, have carried out a campaign in the press for years now, and have been backed wholeheartedly by the editors and the public.

The peril to our elephants lies in the tempo of our land development and the forest destruction it entails. Herds have been pocketed by agricultural enclosure of their habitats and so doomed. This is due to the absence of a planned policy, when agrarian enterprises are mooted, in which the claims of both man and wild beast are considered in their appropriate degree.

We, as a Society, are powerless to act without Government support. We have, however, suggested means by which the danger to our elephants may be mitigated, for example:—

(1) The formation of a consultative committee to go into the question of agricultural expansion, composed of the representatives of the five departments concerned, namely: Lands and Land Development, Irrigation, Forest, Survey, and Wild Life, and, may I add, representatives of the Wild Life Protection Society.

(2) The provision of connecting corridors, where possible, leading from one forest reserve to another to give egress to threatened herds.

(3) Amendments to the Fauna and Flora Protection Ordinance which has not been revised since 1938, *i.e.* 20 years.

The urgency of the position regarding elephants, was pressed in Parliament by Dr. N. M. Perera, I believe, some four and a half months ago. He wanted to know what Government intended doing about it. The Minister of Lands and Land Development said he was appointing a committee to go into the whole question of protection of wild life in Ceylon, with particular reference to elephants. That was indeed good news. But so far, unfortunately, that committee has not come into being—owing to a hitch, I am given to understand, concerning the chairman.

Now that a permanent Warden has been appointed, who can there be better than him to assume the Chairmanship of that Committee?

Elephants have been exterminated within historic times from Mesopotamia, Persia, Java and extensive tracts of India and China. There can be no doubt that eventually they will become extinct in Ceylon—at the rate the human population is now increasing. But it is our duty to delay that day as long as possible without sacrificing the interests of man.

That is the great challenge to us: to preserve the largest animal on earth in this small Island. It is something worthy of our endeavour; something we owe to posterity—compared to which the preservation of the bison in the continents of America and Europe, and the prehistoric platypus and echidna in Australia are chicken feed.

'Treetops Hotel' in the Aberdare National Park in Africa, only 12 miles from the town of Nyeri, shows how near to civilization even the largest wild animals can live when both they and their environments are undisturbed. Farm land borders it on three sides, so that human and domestic animal noises can occasionally be heard from 'Treetops.' And yet an observer watching at night from the structure built on a tree, overlooking a pool and a salt lick and illuminated by an artificial moon, records that he saw rhinos, elephants, buffaloes, forest hogs and bushbucks.

The same sort of thing seems to be taking shape in the Gal Oya Valley, now seething with humanity. The great reservoir is surrounded by a forest reserve; and a frequent sight there of an evening is elephants browsing on the borders of Amparai Tank.

True, there is some danger in this to travellers on jungle roads at night, especially pedestrians and cyclists, a few of whom have come by mishaps. But that can be averted by cutting the jungle well away from the road borders, thus rendering any large animal visible from a distance.

Doubt has been expressed by some as to the utility of jungle corridors and the practicability of elephant drives. Opinions are useless unless they are tested by trial.

That an elephant drive is no fantastic notion but a practical possibility, has been shown in Northern Rhodesia by Robertson Bullock. Some of you must have read an account of how it was done in December "Loris." 1953.

There, a particular herd of elephants insisted on migrating from their swampy breeding grounds into the cattle areas. The elephant herd consisted of 8 bulls, 13 cows and 2 half-grown calves, led by a large old bull—23 in all. Instead of destroying the herd, Mr. Bullock decided on an experimental drive to move the bull and his followers into a National Park where there were other elephants.

Elephants cannot be driven like a herd of cattle, but have to be *persuaded to move*. The presence of drivers was to be felt without causing panic. They were not to be moved more than 5 or 6 miles a day, unless they decided to travel faster. They had to rest in the heat of the day. They were not to be disturbed at night, but would not be permitted to wander out of the corridor of bush decided upon. There had to be complete co-operation between the wild life staff and the African villagers *en route*.

There were numerous villages on the way. The villagers engaged to assist in the work co-operated willingly, as it was ridding them of seasonal trouble.

The method was to keep up a steady beat of drums, plus intermittent rifle fire behind the herd to keep them moving—gentle persuasion. Once they were moving in the right direction they were left severely alone. The presence of man was a source of annoyance to them, and their object was to put a reasonable distance between themselves and the driving party.

Elephants are highly intelligent, and handled with kid gloves for 15 days by their greatest enemy, man, they realised that resistance to a determined uninjuring force would lead to their own suffering.

The driving was accomplished in 15 days. Three weeks after completion of the drive, the old bull followed by a small retinue attempted to recross the river, but were successfully prevented from doing so. One month later the guards were withdrawn.

Had attempts been made, as was previously done, to drive the herd by indiscriminate banging of firearms, drums and shouts, it would have caused them to retreat rapidly into heavy bush-country and split up into small groups.

That, then is one of the ways to tackle the elephant problems. It calls for the co-operation of the Wild Life Department, local elephant experts and villagers.

But there are many other problems that have to be solved and investigations to be made. The first necessity is a census of elephants. How many are actually left? So far the figures have been mere guess work. Work must also study their habitats, the trees they favour for food, their migratory routes, and many other matters connected with elephants in particular and wild life in general.

All this entails strenuous and sustained field work. I doubt that the Wild Life Department can undertake it. They have too meagre a staff and too much to do. Nor can we as a Society help, except indirectly.

It is highly specialised work calling for the services of one experienced man to plan, co-ordinate and conduct operations. I think you will all agree that the man we need at this juncture is Col. J. H. Williams ("Elephant Bill"). He has spent a great part of his life among Asiatic elephants. They have been his speciality. There is no one who understands them better than he does. Helped by the Wild Life Department and such local experts as Sam Elapata and Aubrey Weinman, Col. Williams can be relied upon to give of his best in the cause of our elephants. The man and the moment coincide.

Let us, as a Society, make a recommendation to Government that the services of Col. Williams be obtained, if available, perhaps through some international organization, for it cannot but be that the fate of the Ceylon elephant is a matter of world wide interest."

Mr. J. M. Hodgson informed the meeting that the balance money in hand on the 19th December was Rs. 6,600. He wished to point out that only 337 members had so far paid their subscriptions for the current year and hoped those who had not paid would do so at an early date.

The statement of Accounts were duly adopted unanimously.

4. Mr. C. A. Maartensz proposed Mr. R. S. V. Poulier take the chair *pro tem* ; seconded by Mr. A. M. Wilson.

Mr. Poulier thanked the meeting for giving him this honour. He wished to make mention of the Wild Life Committee which had been appointed by the Hon. The Minister of Lands and Land Development. He was pleased to see the Society was well represented on this Committee. He explained the legal reasons which had forced him to give up the chairmanship of this Committee but stated Mr. K. Somasunderam had consented to serve in his place. He requested members to make representations which could be discussed and investigated by the Committee. Amendments to the Fauna and Flora Ordinance would be dealt with together with changes in the Wild Life Department, administration of National Parks and Reserves.

In regard to the approach road to Wilpattu, Mr. Poulier regretted nothing was being done in spite of the fact the P. W. D. had given assurance they would take this road in hand. Villagers were putting mud on the road and charging Rs. 10 for every car which got stuck and had to be pulled out! Hume pipe culverts will be put in by the P. W. D.

He explained the rearrangement of the Wild Life Department in regard to the Anuradhapura District. National Parks were now directly under the Warden and not under the Divisional Officer as previously. The officer in charge of the National Park will be re-designated as Superintendent. It was proposed, Mr. Poulier said, to reduce the cost of jeep-hire in Wilpattu National Park from Rs. 1.50 to Re. 1 per mile.

Many of the Malay residents of Kirindi, Mr. Poulier explained, had been given land in the Budagiriya colonisation scheme. There was now a proposal that land at Kirindi be taken over by Government to be used by the Wild Life Department as a training school for watchers etc.

He referred in regard to the Maha Wilachiya tank scheme in Wilpattu two other tanks nearby would be improved for the area. These would be deepened in an endeavour to overcome the loss by evaporation during the dry weather. The Irrigation Department had been given money to deepen, in all, four tanks in this area.

It was hoped to obtain foreign assistance so that a bulldozer be obtained for Yala and Wilpattu also four extra jeeps for patrol work of the Wild Life Department. Unfortunately before this could be represented Mr. Raju Kumarasamy had left on his travels again.

In conclusion Mr. Poulier wished to thank Dr. Spittel and his Committee for all the work they had done during the year.

Mr. Poulier, formally proposed from the chair, **Dr. R. L. Spittel** be again elected **President**. Carried unanimously.

DR. R. L. SPITTEL thanked the meeting for again giving him the honour of being President.

The following were then elected as office-bearers for 1957-58 :

	Proposer	Seconder
Vice-President :		
Gorton Coombe	J. M. Hodgson	P. Benham
D. B. Ellapola	S. Elapata	C. A. Maartensz
Hony Secretary :		
C. E. Norris	Chair	
Hony. Treasurer :		
J. M. Hodgson	C. A. Maartensz	A. M. M. Davies
Editor, " Loris " :		
Dr. R. L. Spittel	C. E. Norris	A. M. M. Davies
Hony. Auditor :		
Noel de Costa	C. E. Norris	A. M. Wilson
General Committee :		
R. S. V. Poulier	(Under Rule 6)	
Dr. Brito Mutunayagam		
E. B. Wikramanayake		
S. Elapata Dissawa	A. M. Wilson	R. S. V. Poulier
P. Benham	G. Coombe	E. B. Wikramanayake
F. W. E. de Vos	A. Jackson-Smale	E. B. Wikramanayake
C. A. Maartensz	Chair	
Aloy H. Perera	R. S. V. Poulier	E. B. Wikramanayake
A. N. Weinman	A. M. Wilson	G. Coombe
W. W. Beling	R. S. V. Poulier	C. A. Maartensz

5. The President called for views in regard to the venue for the Half Yearly General Meeting and the 65th Annual General Meeting.

Mr. Hodgson wished to point out the attendance in the outstations, especially in Uva, when, at the last meeting 72 members attended and over 90 members and guests were present for a film show, showed that great interest was taken. He considered the Half Yearly meeting should be held in Nuwara Eliya, which was easily accessible from Uva and Kandy.

Mr. Poulier considered the Annual General Meeting should be held in Colombo as was done in the past. He stressed that all business had descended to Colombo, even the Planters' Association had left Kandy. He considered in Colombo there was a larger group of people who were not converted and it was possible we wanted to get to our meetings. In Uva the people were interested and converted. Further, if meetings were held in Colombo, officials of the Government had an excuse for not coming when invited but there should be none forthcoming when a meeting was in Colombo.

Mr. Davies supported holding the Half Yearly in Nuwara Eliya.

Mr. Wilson supported Mr. Poulier's argument as to the unconverted people, as the best interests of the Society should be considered.

Mr. Coombe stated whether the meeting was in Colombo or Nuwara Eliya it made little difference to Uva members. He considered the Half Yearly Meeting should be in Nuwara Eliya and the Annual General Meeting in Colombo.

This proposal was put to the meeting and carried *nem con.*

6. (*a*) The President said he would like to get the feeling of the meeting as to procuring the services of Col. J. H. Williams if possible.

The meeting was in full support of this suggestion.

(*b*) Mr. Davies considered a very hearty vote of thanks should be accorded to Miss Frances L. Perry for her gift of £16-16-0. A vote of thanks was then passed by the meeting.

(*c*) Mr. H. Molamure asked if the binding of *Loris* could be made stronger as the cover was not stiff enough.

It was agreed to put the matter up to the General Committee so that costs, etc., could be investigated.

(*d*) The Honorary Secretary informed the meeting the Society had been invited to send a delegate for the next Assembly of the I.U.C.N. which was to be held in Athens, Greece, on 11th-19th September, 1958. If any one was able to represent the Society would they kindly write in. It was pointed out that the Society was not in a position to finance such a trip.

There being no other business the meeting terminated with a hearty vote of thanks to the chair.

C. E. NORRIS,
Honorary Secretary.

Pingarawa,
Namunukula.

After the meeting Mr. G. Coombe and S. Elapata Dissawa gave a show of **coloured stills** on CeylonWild Life and Mr. Amarasekera of Studio Phoenix showed his 16 mm. **film on Ceylon Jungles and Wild Life.**

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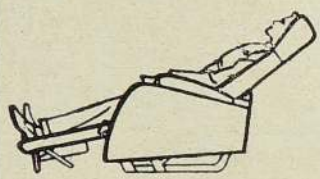

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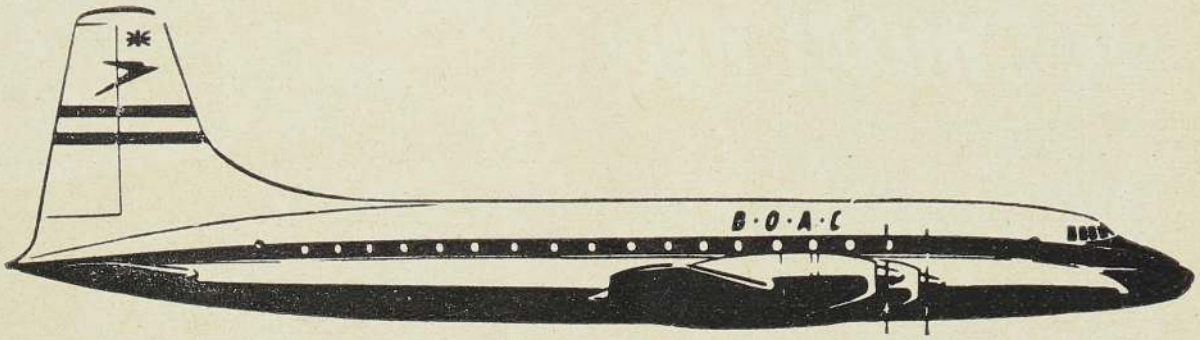

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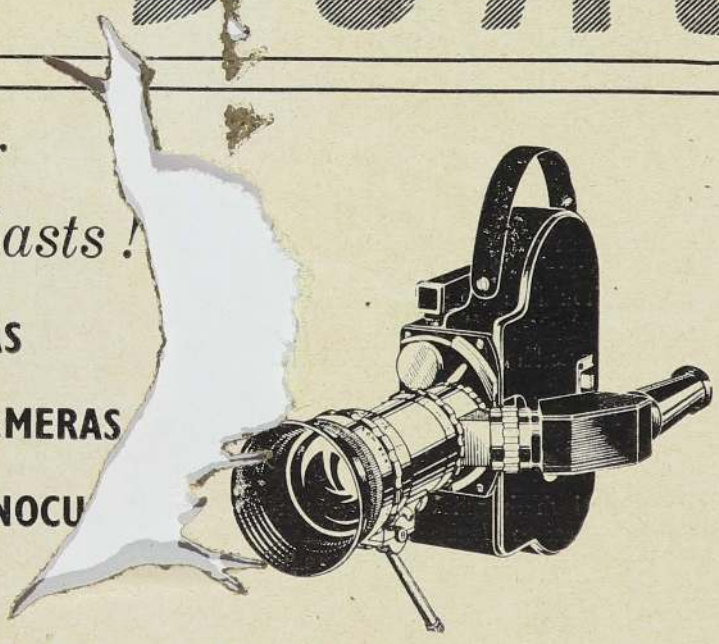

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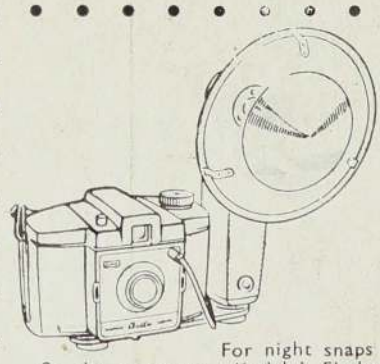

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MINISTRY OF LOCAL GOVERNMENT HOUSING AND CONSTRUCTION URBAN DEVELOPMENT AUTHORITY

The Chairman, Tender Board, Urban Development Authority Colombo will receive tenders up to 10.00 a.m. on 07.07.1982 for plucking, collecting and purchasing of coconuts and other produce in U.D.A. Lands at Ratmalana Pelawatta and Madiwela in Colombo District.

02. Tenders will be permitted to be present at the time of opening of the tenders. They will be opened at the Office of the Urban Development Authority, No. 27, D. R. Wijewardene Mawatha, Colombo 10 at the time and date referred to in paragraph 1 above.

03. Tenders should be made on forms obtainable on application from the Director (Lands & Property), Urban Development Authority No. 27, D.R. Wijewardene Mawatha, Colombo 10 up to 12.00 noon on 06.07.1982. Tenders are required to show proof in regard to their competency to undertake the work referred to in paragraph 1 above before the issue of the tenders forms.

04. All tenders should be in duplicate. Tenders should be marked "Tender for plucking collecting and purchasing of coconuts and other produce in UD.A. Lands at Ratmalana, Pelawatta and Madiwela in Colombo District" on the left hand top corner of the envelope.

05. Tenders may be sent through the post under Registered Cover. If a local tenders doeer not choose to send his tender in this manner he or his agent may personally hand over the sealed tender (on the cover of which the particulars referred to in paragraph 4 above and the name and address of the tenderer should be given) to the Secretary, Tender Board, who is authorised to receive and acknowledge it.

06. A refundable tender deposit of Rs. 250/- and a non-refundable tender deposit of Rs. 25/- should be made at the offlce of the Urban Development Authority and a receipt produced for same before obtaining tender forms.

07. Tender particulars and conditions could be had on application to the Director (Lands & Property), Urban Development Authority 27 D. R. Wijewardene Mawatha Colombo 10.

Chairman,
Urban Development Authority.

Urban Development Authority,
27, D. R. Wijewardena Mawatha,
Colombo 10.
25.06.1982.

Printed and Published by S. P. Amarasingam for Tribune Publications at Tribune Printers at 43 Dawson Street, Colombo 2 on June 26, 1982