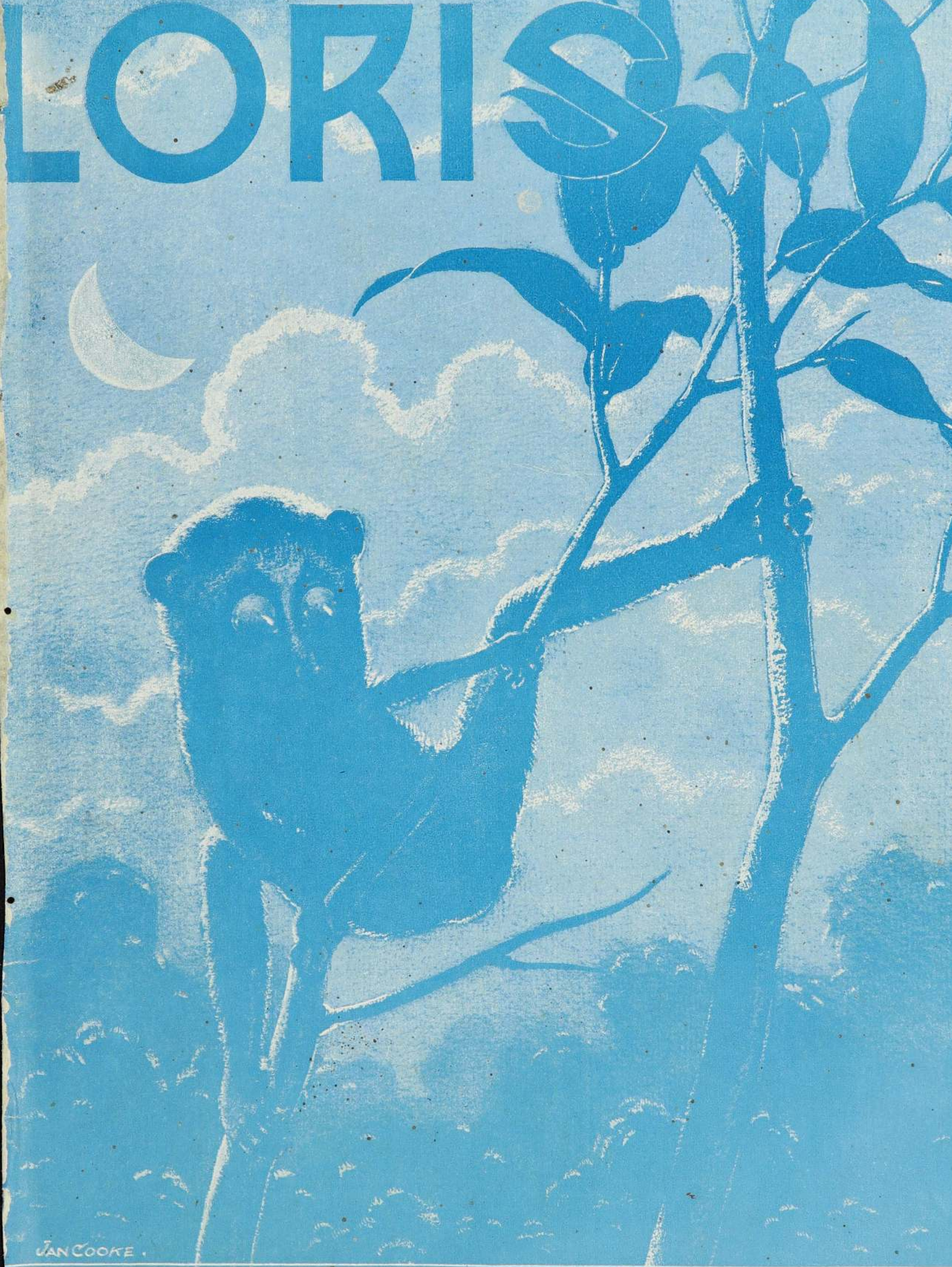
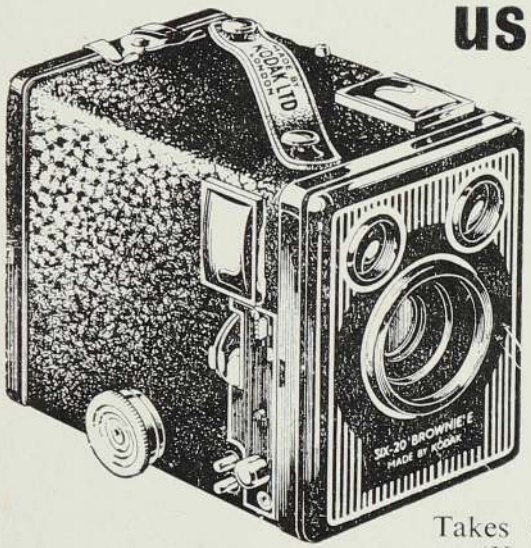
LORIS



A JOURNAL OF CEYLON WILD LIFE Vol. VII No.—2

Be proud of the pictures you take

use a 'KODAK' camera

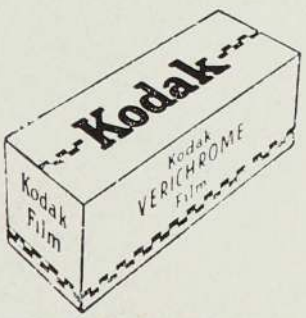


Six-20 'BROWNIE' Camera Model E

—an efficient box camera incorporating useful accessories to help you take successful snapshots. A built-in close-up lens enables you to take head-and-shoulder portraits; a built-in colour filter helps to bring out the clouds in your pictures. Flash contacts are fitted, so with the accessory 'Kodak' Flasholder, Type B attached, you're all set for taking pictures indoors and at night. Takes 8 pictures 2¼ x 3¼ inches on 'Kodak' film size 620.

Six-20 'KODAK' A Camera

—the ideal companion for every picture-taking occasion. Well-equipped and extremely versatile, it is capable of taking a wide variety of subjects. Use it indoors and at night too—just attach the 'Kodak' Flasholder, Type KA, available as an accessory. Takes 8 pictures, 2¼ x 3¼ inches, on 'Kodak' film size 620.



Load with KODAK film

'Kodak' film records all the detail—gets pictures that are sparkling and life-like. Always load with 'Kodak' film.

MILLERS LTD. SOLE KODAK WHOLESALE DISTRIBUTORS **IN CEYLON**

'KODAK' and 'BROWNIE' are registered trade-marks

LORIS

Vol. vii **December, 1955** **No. 2**

CONTENTS

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. 10 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. 3-50 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.

Vol. VII. No. 2. December, 1955.

LORIS

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, BULLER'S 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 *Memberships* and *Subscriptions* should be addressed to MR. C. E. NORRIS, PINGARAWA ESTATE, NAMUNUKULA.

Advertisement Rates.

Rs. 75 full page. Rs. 40 half page.

All Enquiries regarding Advertising should be made to Mr. Gorton Coombe, Hony. Treasurer, W.L.P.S., Poonagalla Group, Bandarawela.

Gleanings from the 1954 Report of the Warden*

By C. W. NICHOLAS

The National Reserves

THE Fauna and Flora Protection Advisory Committee decided unanimously to oppose proposals made for the restoration of 5 breached tanks, one near the boundary of the Ruhuna National Park, one in the Wasgomuwa Strict Natural Reserve, one in the Wasgomuwa Intermediate Zone and two in the Vettikachchi Intermediate Zone.

The Yala Strict Natural Reserve

With effect from October 1, the maritime portion of the Yala Strict Natural Reserve from the Menik Ganga to within a mile of the Kumbukkan Oya was excised from the Strict Natural Reserve and added to the adjacent Ruhuna National Park. This territory of 38.4 square miles contains the great plains of Yalawela, Pillinawa, Potana and Gajabawa and holds a very large animal population. A forest barrier about a mile wide along the right bank of the Kumbukkan Oya was left part of the Strict Natural Reserve so as to prevent access and entry into the extended National Park from the Okanda-Kumuna side. The reduced area retained as the Yala Strict Natural Reserve is now 111.6 square miles in extent. It does not possess the vast stretches of plain and parkland, inhabited by great herds of buffaloes and deer and large numbers of peafowl, which characterise the excised maritime belt: it consists mainly of high forest interrupted by rocky hills, great and small, rising to 1,000 feet, and a few large parks which are the beds of old, abandoned tanks, and it is a suitable habitat for elephants, sambur and bears. But the water-supplies during the annual drought are mainly rock water-holes, and under these conditions the elephants quit the area for the proximity of the rivers to east and west.

The annual expedition into unknown ground was carried out over 11 days in June by the Game Ranger. Yala, and a party of 2 Guards and 4 Watchers. They were required to explore fully Dematagala, the highest hill in the Strict Natural Reserve, and all the country to south and south-east of it as far as Potana, and their assignment included careful observation of the distribution and populations of the animals, systematic searching of all hills and rock outcrops for ancient ruins and inscriptions, the location of water-supplies and the main animal tracks, the recording of all new topographical information, and the collection of botanical specimens of new or unfamiliar plants. This task they carried out efficiently. To find their

* The Gleanings published in the last number of Loris (Vol. vii, No. 1) should have been dated 1953 and not 1954. The error is regretted.

way and to locate their position they had to rely largely on compass bearings. Dematagala was successfully climbed to its summit point of 1,001 feet which was crowned by a ruined dagaba. The trees *Firmiana colorata* and *Fagraea zeylanica*, and the orchid *Rhynchostylis retusa* were in flower on its slopes. Throughout the area traversed, scattered Palu trees (*Manilkara hexandra*) were in fruit, and elephants, bears, pigs and spotted deer were seen feeding on the berries. Fifteen elephants, 14 bears, 1 leopard, 10 sambur and about 150 buffaloes were actually seen, but there were signs of many more elephants and bears. Pigs were present in fair numbers but spotted deer were not numerous, although every park held a herd or two. Peafowl were very scarce. An interesting discovery was a spring or ooze in a plot of sandy ground between Athurumiturugala and the Ara. This was a Clapham Junction to which all animal tracks and trails converged, and here every kind of animal had watered. The water gushes out when the sand is removed and the animals are able to quench their thirst easily by surface digging. The total number of water-holes discovered was 33.

The National Parks

More and more people who visit the National Parks are beginning to realise that the prohibition on visitors alighting from their vehicles and walking in the Parks, a prohibition rigidly enforced in the National Parks of Africa, is a sensible one. Firstly, it is a wise precaution because potentially dangerous animals, such as elephants, buffaloes and bears, may be encountered anywhere. Under the law, no gun may be fired in a National Park and no act may be done which disturbs any wild animal. But mere enforcement of the law is not enough : this Department has also a responsibility to see that every precaution is taken to ensure the safety of visitors. The avoidance of disturbance to the animals and of danger of visitors cannot be secured if visitors are allowed to move about freely on foot. Many visitors come in station-wagons, vans and buses, in parties of 10 to 40 persons : encounters with animals and accidents are certain to follow if these parties were to be allowed to wander about as they liked. So far no visitor or vehicle has been injured or damaged by a wild animal. But one fatal or serious accident will do great injury to the reputation and popularity of the Parks, and the staff of the Parks have that constantly in mind. Secondly, the ban on walking is necessary if all visitors are to enjoy equal opportunities for observing Wild Life. The animals pay little attention to motor vehicles passing and repassing them, but they are instantly alerted or alarmed by the sight of men on foot. Hundreds of motor vehicles of all descriptions have traversed the Parks in the last few years and the animals have got used to them. But, if the occupants of a car were to alight from it and show themselves, most of the animals within sight in the open will exhibit uneasiness and begin to move towards cover and concealment. If the occupants were then to walk about, the animals will take to flight and disappear rapidly from sight. They will not come out into the open again until some time after the danger has passed, and all other visitors who follow in the wake of the party which caused the disturbance will see nothing. The visitor who desires to walk about, knowing that the consequences of his action will affect the pleasure of others following him, cannot but be put down as an unsocial person. In the case of the Ruhuna Park, now visited by some 10,000 people a year, the result of a considerable proportion of visitors being allowed to walk about will inevitably be that the majority of the animals in the Park, constantly disturbed and alarmed and put to flight at frequent intervals, will either become nocturnal or quit the Park for areas of greater tranquillity.

Experiments carried out both in Yala and Wilpattu with passengers in open trucks and jeeps, all dressed in white or bright colours and all fully visible, demonstrated that the animals took no greater notice of these particular

vehicles and its conspicuous occupants than of others. As regards colour, it has never been observed that, for instance, the animals recognise a red car or jeep quicker than they do a green or black one. It does not matter what colours visitors wear so long as they stay inside their vehicles and it is certainly unnecessary that they should go to the expense of equipping themselves with green or khaki clothing when they visit the National Parks.

In the Ruhuna Park there are safe vantage points, mostly bare, elevated rocks, to which visitors are permitted to walk in order either to get a better view of the animals in the plains or to admire the scenery. On the summit of one of these rocks, named Jamburagala, there is an observation hut for the use of visitors. In Wilpattu there are several more huts than in Yala, but the land being flat they are not on elevated ground, and they are used by visitors chiefly for rest and refreshment.

The Ruhuna National Park

Replacement of the burnt out fittings of the four prefabricated Aluminium Altents, damaged by fire on board ship, was affected by the manufacturers in September and the buildings were erected at Palatupana and were ready for occupation by October 15. They are provided with detached lavatories and kitchens. Each Altent could accommodate 10 persons sleeping on the floor. These structures are intended principally for the accommodation of parties of students and others who come by bus or van. The charge is 25 cents per day per person, but if less than 10 persons wish to occupy an Altent a minimum charge of Rs. 2.50 is recovered. Crockery, cutlery, cooking utensils, lamps and other equipments are supplied. From the day they were erected these buildings have been in great demand, and, like the Bungalows, they are now being booked weeks ahead.

The addition to the Ruhuna National Park of the adjacent coastal belt in the Yala Strict Natural Reserve has increased the area of the Park to 91.2 square miles. The Park is now divided into 2 Blocks ; No. 1 Block and No. 2 Block, the former being the original National Park and the latter the recently added portion. Till a causeway is constructed across the river and the roads in No. 2 Block are made motorable, permits to enter the Park will normally be issued for Block No. 1 only. Special permits to enter Block No. 2 will be issued only to those who have the necessary transport and the equipment to cross the river and camp in Block No. 2 for a period of not less than 3 days. With the great increase in the number of visitors to the Ruhuna Park two things became necessary ; an extension of its area and the construction of more motorable roads. All traffic now goes up and down the single main road from Palatupana to Yala. The natural surface track through Siyambalagaswala and Uraniya to Buttawa is used by many cars in dry weather and this helps to mitigate the volume of traffic on a section of the main road. But from Palatupana to Wilapalawewa and from Buttawa to Yala there are no alternative routes and the stream of traffic is sometimes so considerable as to be disturbing to the animals.

The discovery, in and just outside the National Park, of the carcases of 4 elephants which had died apparently of natural causes, caused considerable anxiety as to whether some fatal infectious disease had attacked the elephant population. In the first case, on March 29, a boy of Kirinda on his way to the fishing camp at Amaduwa saw an elephant prostrate by the roadside and 2 other elephants standing about 100 yards away. He returned at once and reported his discovery to the Ranger who immediately went to the spot and found a she-elephant lying on the ground, unable to rise and in a dying condition. He telephoned Colombo from Tissa and obtained authority to destroy the animal. The elephant was not an old animal, it had not recently calved, it was not emaciated and it bore no injury other than the single bullet wound by which it was destroyed. The second discovery was made on April 28 near Situlpauwa. The carcase was

again of a she-elephant and death was not caused by an injury. On May 29, the 2-day old carcase of a third she-elephant was found in the Strict Natural Reserve : no signs of any injuries were visible. In August a solitary bull elephant, which had often been seen coming to water in the Palatupana tank, came there somewhat earlier than usual and lay down in the water. Suspicion was not aroused till an hour or so later and then a closer look revealed tortoises perched on the animal's body. There was no doubt now that it was dead and immediate examination of the carcase showed no injury of any kind. Next morning the carcase had to be dragged out of the water and over the bund, the jeep and several men assisting, lest it foul the only water-supply of the Palatupana staff. A further careful examination of the carcase was made and it was certain that the animal had not died of an injury. Soon afterwards, another death of an elephant from natural causes was reported from the Wilpattu National Park ; in this case too, the absence of injuries was a certainty. Professor C. A. McGaughey of the University of Ceylon was at this time investigating anthrax infection among elephants and had asked this Department for certain specimens. The Yala deaths were reported to him and at his request soil samples from the sites at which the elephants had died were collected and forwarded to him. Several samples in preservative, of fresh dung, were also collected from different parts of the Yala, Wilpattu and Okanda Reserves and sent to Peradeniya.

A sad accident occurred near Katagamuwa, close to the National Park boundary. An infirm old man, said to be 80 years old, used to visit Katagamuwa off and on and during his stay there went daily to the ruined dagaba locally known as Nandimitra Caitya and cleared the precincts of the jungle vegetation which was growing on it. One day he did not return for his meal, and the Katagamuwa staff, knowing his usual movements, went to look for him. They found his dead body in the undergrowth which he was clearing. He had not heard or seen the approach of the elephant, and the animal too had come suddenly upon the man, struck him with its trunk and killed him. The elephant was not a " rogue " because it had often been seen in that locality and did no harm to anybody else.

The approach P. W. D. road to the National Park (the road from Kirinda to Palatupana) has deteriorated. In wet weather the deviation over the last $\frac{1}{4}$ mile becomes exceedingly muddy and cars negotiate it at great risk and with great difficulty. Many cars get stuck and have to be hauled out by the staff : as many turn back on seeing the condition of the road. On December 24, a day on which a large number of people, the forerunners of the Christmas-New Year rush of visitors, was expected, the road was submerged and altogether impassable. Several cars and buses turned back : others waited hopefully for some hours for the water to subside and then went away. Nobody could enter the Park on this day. Next day the water had subsided but many cars which tried to come through during the next few days sank in the ruts and the soft surface. Unnecessary expense and inconvenience are caused to a considerable number of people by the very bad condition in wet weather of this approach road.

The majority of visitors to the Ruhuna Park do not fail to see elephants. But large herds are very seldom seen. One herd of over 25 animals is known to frequent the Akasa Cetiya forest and another of nearly the same size sometimes crosses into the Park from the Strict Natural Reserve but does not remain long. In their search for food, elephants travel much greater distances than other animals. It has been repeatedly observed that a herd with babies can cover 6 to 8 miles in the course of a night's travel : adult elephants can travel much further. Herds are constantly moving from locality to locality, but single, bull elephants do not usually range so far and wide. In the dry season these wanderings are curtailed by the

necessity to remain within reach of water-supplies and then the elephant population in the Park is at its highest.

There are periods and occasions when few animals are seen out in the open. For instance, when fruits, such as Palu, Wira and Dan, are in season the deer and pigs will spend much time under the trees feeding on the fallen fruit. In very wet weather when the ground is soft everywhere pigs need not come out into open land to dig. Some local alarm, such as an attack by a leopard or the presence of an enemy, can stampede the deer off the open country or keep them from coming out into the open at their usual times. The paucity of animals in a particular locality at a particular time or period is governed by a variety of factors. The visitor who sees few animals during his visit would be quite wrong in concluding that the Park is much over-rated and that its animal populations are small. In point of fact it is quite unnecessary to see the animals or to look for their tracks and other signs of them in order to form a judgment as to whether a stretch of park country holds many or few grazing animals. A glance at the grass is sufficient. Where there are deer or buffaloes in plenty the grass is well cropped : it does not flower and seed but reproduces itself by vegetative means. Where there are few animals to feed on the grass, it will present the appearance of a stretch of close, nodding, flower-and-seed-bearing stalks, rising one foot and often more above the ground level. Sometimes, only a portion of the park country may present this appearance : the conclusion then is that the grass in that portion is not a good fodder grass and is not eaten.

The Wilpattu National Park

A notable but sad event was the death of the White Doe of Wilpattu in June. There is no doubt that she was taken by a crocodile because no trace whatsoever of her remains, bones or hide or hoofs or fur, was found in spite of long and careful search. She was 5 years old. She dropped her first fawn, which was also taken by a crocodile, in 1954. From 1951 up to the time of her death she was by far the greatest attraction in the Wilpattu National Park and few visitors had failed to see her. Among albino deer she was unique in her pure, unsullied whiteness.

During the drought the number of elephants resident in the Park was 40 to 50, a greater number than was ever seen there before. One herd of 17 animals watered regularly at Borupan Wila and another of 12 animals at Maradan-maduwa. In addition, there was a third herd of 7 and at least 5 or 6 lone bulls, including 1 tusker. Two factors have contributed to the increase of the elephant population in the Park ; the improvement of the water-supplies and the security which the Park now affords. Nevertheless the behaviour of elephants in Wilpattu is in marked contrast to that of the elephants in Yala : they are timid, always watchful, and prone to take to cover on the slightest hint of danger. This is the measure of the extent to which they have been harassed and harried in areas outside the Park. As already stated, one bull elephant was found dead of natural causes.

Visitors to Wilpattu often see bears. They may be encountered anywhere, from the clearing round the Bungalow to the remotest parts of the Park. She-bears with small cubs have been seen in the months of January, March, April, August and September. Usually there are two cubs, one riding on the mother's back and the other trudging along behind. Three cubs in one litter have not been observed. Family parties of 3 or 4 bears, consisting of the parents and 1 or 2 cubs, are not uncommon. When they are together like this, the male bear is noticeably bigger than the female. Bears are inordinately fond of the berries of the Kina tree (*Calophyllum calaba*) : this species was in fruit in Wilpattu in 1952 but not in 1953 or 1954. The population of bears in Wilpattu is estimated at 250 to 300, roughly one per square mile.

Intermediate Zones

The Yala East Intermediate Zone

This has always been the most popular of the Intermediate Zones, not only for its abundance of game but for its picturesque terrain. But very few of the many sportsmen who have camped in it have gone into its rugged and hilly hinterland, full of caves, rocks of fantastic shapes, precipices and chasms. From the higher slopes spacious views of the surrounding country are presented. A belief exists that the remote park country around Lenama is the best game area in the Zone, particularly for leopards. This belief is spurious. The deer population in the Lenama parks is very much smaller than that in the coastal plains and in the parks round Kiripokuna : consequently the number of leopards must also be less.

From January 1, the maximum number of persons constituting a shooting party in an Intermediate Zone was limited to four. This was necessary to prevent the shooting of many unprotected animals as food for large parties and to avoid disturbance to the animals by excessive firing. In many cases the parties consisted of 10 to 15 persons.

In January a party of 5 fishermen from the Tangalla area came by sea, encamped on the beach in the Intermediate Zone and engaged in sea fishing. They refused to quit when they were requested to do so. A prosecution was entered for unlawful entry into the Intermediate Zone and, after much delay in serving summons on them in their villages, they were eventually produced in Court, pleaded guilty and were fined Rs. 50. Two more offences by residents of Kumuna were detected. One man shot a leopard in the Kumuna Sanctuary. In the second case, 3 men entered the Strict Natural Reserve and captured two wild buffalo calves. In both cases the men were fined.

The buffalo population, wild and semi-wild, in the eastern section of this Zone was estimated at well over 1,000, a number far in excess of that which the ground could carry. It was decided, therefore, to issue licences for the capturing of 100 to 500 animals in each of the years 1954 and 1955. The Gal Oya Board was prepared to take up to 200 buffaloes and to organise its own capturing operations. Local villagers were also eligible to apply for licences and the selection of those to whom licences were finally issued was made in consultation with the Headmen. Capturing operations started in July and went on till October. The Gal Oya Board's Wild Life Officer assisted the local staff in supervising the operations. Disturbance to the wild animals generally was unavoidable, but all activities were restricted by the supervisory staff to the minimum necessary for the purpose. One very unfortunate accident occurred : a small elephant was caught by the neck in one of the nooses and was strangled to death. The total number of buffaloes captured and removed was 89.

The Yala North Intermediate Zone

This is the largest of the Intermediate Zones and consists of 3 Blocks. The remotest Block, Talaguruhela, has no jeep roads or cart tracks and all travelling through it must be undertaken on foot. Park country is absent, except for some small, open spaces near the Kumbukkan Oya, and the deer population is small. Bears and some sambur inhabit the rocky hills, and elephants pass through the area. This Block furnishes a striking exception to the popular rule that the remoter the jungle the more the Wild Life to be found in it. Remoteness is, in reality, no criterion. It is the vegetation that matters above all. Wild Life is most abundant where two opposing vegetative types meet. There must be forest and parkland, low and high jungle, hills and grassy plains, land and water—this is the environment in which Wild Life flourishes. The Ruhuna Park, the maritime belt of the Yala Strict Natural Reserve (now Block No. 2 of the Ruhuna Park), the Villu area in Wilpattu and the Veddikachchi Intermediate Zone fulfil these conditions admirably.

Block No. 2, Warahana, once an excellent

shooting ground, has not yet got over the over-shooting to which it was subjected for several years. Block No. 1, Galge-Pilimagala, is very vulnerable from the point of view of poaching, especially from the Kataragama side. Evidence of poaching on a considerable scale on the Menik Ganga, upstream of Kataragama, was brought to light during 1954. Kataragama will be the headquarters of a Ranger when the full staff is recruited and trained.

The Wilpattu East Intermediate Zone

The northern triangle of this Intermediate Zone consists of extensive park country, several rock groups and outcrops, and scrub jungle and high forest, and it contains a large and varied animal population. But it was practically unknown as a shooting ground until 1952, when sportsmen who found themselves shut out of other Intermediate Zones or were desirous of breaking new ground were advised by this Department to try this area. Since then it has been regularly visited. During the drought water-supplies are very deficient and most of the animals drink in the pools in the bed of the Moderagam Aru. One large water-hole, known as Sinadiya Wila, was restored : this held water throughout the 1954 drought.

The Wilpattu South Intermediate Zone

In the past poachers entered this Zone from the Pomparippu side and this danger will always exist. The animal populations here are not so great as in Yala East, Blocks Nos. 1 and 2 of Yala North and Wilpattu East ; nevertheless, it is a moderately good shooting ground, particularly the park country round Galge Vihara which is now accessible by jeep.

The Vettikachchi Intermediate Zone

This Zone, now half its original size but still retaining its great stretches of park country, is hemmed in on all sides by development schemes. A study was made of the grasses of the park lands. The predominant species were *Heteropogon contortus* and *Aristida setacea*, coarse, poor-fodder grasses with inflorescence axes up to 3 feet in height. The deer may eat the tender shoots (this was not seen and remains to be verified), but not the grown plant. The species for which the deer were observed to show a marked preference was the short *Panicum trypheron* : this grass grows not only in some of the parks but on the jungle edges and on ant-hills and mounds. The parks in the southern part of the Reserve had greater extents of the short, good-fodder grasses than the parks in the northern part, and they held more deer. Considering how heavily this Zone was poached during the War years and again when irrigation works were in progress on its western side, a large animal population is not to be expected, and does not, in fact, exist. Poaching, on a reduced scale, still goes on : on every visit of inspection, new poaching sites are found. One party of poachers, which included four members of the Royal Naval establishment at Trincomalee, was caught soon after they entered the zone and before they could do any shooting. All except one of them paid the fines imposed departmentally : this man refused to pay and was prosecuted : he applied for and obtained 2 postponements of the trial, and when the case was called on the third occasion he had left for England. The matter was reported to the Naval authorities.

Most of the parks are named after the predominant species of tree grow-in them. Interesting exceptions are :—*Kumara Vette*, " the Prince's park," named after the Crown Prince of Germany ; *Podyal Edatu Vette*, " the park from which treasure was taken " ; and *Storey Puli Kadichchi Vette*, " the park where Storey was mauled by a leopard." Sinhalese and Tamil place names are found side by side. A Park is called *Pittaniya* or *Pitiya* or *Damana* in Sinhalese and *Vette* in Tamil. In Yala, there are two words in use, *Eliya* and *Pelessa*. In Wilpattu, the terms *Damana*, *Pittaniya*, and *Vembuva* are employed.

Katagamuwa Sanctuary

Sanctuaries are areas in which every human

activity is permitted except the hunting, shooting and capturing of wild animals. The Katagamuwa Sanctuary, adjacent to the Ruhuna National Park, contains the large Katagamuwa tank, a reservoir which rarely runs dry. During the drought, the animals in the north-western section of the National Park migrate in great numbers to the vicinity of this tank, the only source of water then available to them, and the tank becomes an admirable place for the observation of Wild Life. In August and September, when the drought is at its height and the National Park is closed to visitors, the Katagamuwa Sanctuary, which may be entered without restriction, serves as a substitute for the National Park. At this time of the year the road from Kataragama to Katagamuwa is motorable without much difficulty.

Encounters with Dangerous Animals

In the performance of their duties, particularly in the National Reserves, encounters with dangerous animals are the common lot of the staff. Close calls are by no means rare, and the exercise of vigilance and jungle-craft, and not the use of firearms, has prevented serious accident and injury in several cases. Nevertheless, accidents are sometimes unavoidable even with skilled and self-reliant men, and four cases of serious injury to officers occurred during the year. In the first of these, in Wilpattu, Game Watcher Sugatapala was bitten by a snake which was identified as a Russell's Viper : he became seriously ill but recovered and was able to resume duties after six weeks. In the second, the circumstances were unusual. Two Watchers were patrolling the beach in the Ruhuna Park and while traversing the group of rocks near Silawa they suddenly came upon a lone, bull buffalo which was lying concealed among the boulders, allowing the spent waves to lap around its body. Taken by surprise, the buffalo attacked at once and charged Game Watcher Sudanchi Appu who ran into the sea, the only escape route open to him. The animal pursued the man into the water and there gored him badly in the thigh when he was more than knee-deep and hesitant about plunging in among the shore breakers. The Watcher collapsed in the water and was actually washed ashore by a large wave, and then succeeded in crawling on to the beach. As he was unable to walk, the other Watcher had to go 2½ miles to fetch assistance to remove the injured man to hospital. He was over 4 months in hospital before he recovered. The third case, also in Yala was much less serious, but only so by a hairs-breadth. A party of officers arrived on foot at the Menik Ganga in order to cross the river into the Strict Natural Reserve, when an elephant in the river bed charged out on them. They scattered but Guard Andris was unable to avoid the elephant brushing past him : the contact was slight but it was sufficient to send him to hospital and he was in pain and sore for several days. In the fourth case, in Wilpattu, which occurred on August 31, the injured officer was still under hospital treatment at the end of the year. Guard Menikrala was leading a working party of 7 labourers along a jungle path to a new work site when he was suddenly attacked round a bend by a she-bear with cubs. Before any of the men could wield an axe or come to his rescue, the Guard was on the ground with the she-bear atop, bitten and clawed in the shoulder, arms and hands. This accident was the result of a misplaced confidence in numbers. There were 8 men all told, and normal caution was relaxed because it was supposed that no animal was likely to attack so large a number of men. But the ways of a she-bear with cubs or of a family of bears are unpredictable and, though risks are often taken in spite of that knowledge, fatality sometimes lurks round the corner. No case of shooting an animal in self-defence occurred during the year.

Protected Animals and Plants

No new animals or plants were added to the absolutely protected or partially protected lists. Large quantities of the wet zone herb

Ekaweriya (*Rauvolfia serpentina*) are being exported, principally to the United States : from this herb, certain drugs are manufactured which are valuable in the treatment of high blood pressure, and these drugs now have a large sale. The export of the plant from India has already been banned. It was found that the Fauna and Flora Protection Act did not include provision under which (i) the export of the plant could be prohibited and (ii) its local use could be permitted. The plant grows in the low-country wet zone and the lower montane zone and is a valuable herb in ayurvedic medicine. The depredations already made on it for the purposes of export have been considerable, and it has already become rare in some areas where it was common.

Five cases were reported of the shooting of protected birds, chiefly egrets. This type of illicit shooting is not common. But where storks, herons and egrets nest in colonies, as in Giant's Tank and Lahugala Tank, the helpless fledglings are sometimes captured and taken away in numbers to be eaten.

The grey partridge is most abundant in the Mannar District and it certainly was in need of a greater degree of protection in 1952. In that year the number of birds which could be shot on a licence was reduced to 10, and this figure was further reduced to 6 in 1953 and 1954.

The present status of the gray partridge will be closely investigated during 1955, and further restrictions will be imposed if necessary.

The reason why the shooting of the two migrants, snipe and golden plover, is prohibited in September and October, while other migrant sporting birds, such as the wild ducks, curlew, whimbrel, greenshank and godwit are not so protected, is that the former begin to trickle in as in as early as late August and are partly in by October, while the latter are rarely seen before November. Claims to have shot the first snipe of the season (with the wing as accompanying evidence) are no longer made in the Press or in public. It might be as well to add here that the contention that protected birds lose their protection and may be shot when they are on private land is bad law.

The protected plants consists of (i) a few trees with historical associations, (ii) certain Orchids which are not rare but are exposed to commercial exploitation, and (iii) an Up-country moss which is very local in its habitat and also has a commercial value. There are many other rare and beautiful plants which are not protected.

It was necessary that a comprehensive study should be undertaken of the flora of the National Reserves. A start was made in the National Parks with the taking of colour photographs of the wild flowers and the collection of botanical specimens of plants. This Department did not possess the 5 volumes of Trimen's " Flora of Ceylon " and the absence of this standard work was a serious disability : efforts to purchase the books, both locally and abroad, failed and it was doubtful whether a second-hand set in good condition would be obtainable in England for less than £40. Dr. Andreas Nell, learning of the Department's difficulty in proceeding with the work which it had begun, most generously offered to sell his set of Trimen's " Flora " for Rs. 20 a volume, the original published price over 60 years ago. The offer was gratefully accepted.

The Unprotected Areas

Nocturnalism is the rule among the larger wild animals in the unprotected areas. No longer are they a familiar and pleasing spectacle on our jungle roads. For one thing, their numbers are much less than they used to be. It is not the colonists who cause the greatest destruction to wild life in a newly developed area but the men who go before them to build the tank and the channels and to clear the jungle. But for these great losses to their populations there should be increasingly larger numbers of wild animals in the dwindling tracts of forest in which they are being confined by the advancing tide of development. As the

habitats decrease in size, the animals decrease in number, not by natural adjustments of the balance, but by slaughter.

The Customs in the Jaffna Peninsula made 3 detections at sea of the smuggling of crocodile skins from Ceylon to India. The trade in crocodile skins continues. The shooting and the inland transport are not illegal : the absence of control at these stages of the trade, facilitates the smuggling. It is to be hoped that with the recent transfer of the ports of Karikal and Pondicherry to India, the activities of smugglers will be greatly curtailed.

Once again, very few migrant ducks visited Ceylon during the 1954-55 North-East Monsoon. Up to December 31, no ducks had been seen in the Ruhuna Park and in the lagoons outside it. In the Wilpattu Park, the total count in all the Villus was 7 garganey. It was observed that the numbers of all kinds of migrant waders were noticeably less than in normal years. The explanation must lie in the existence of exceptionally favourable conditions for the birds in South India.

Game Licences

The increase in 1953-54 in respect of deer licences (inclusive of combined deer and fowl licences) was 1,052 licences (67 per cent.) more than in 1952-53 and 1,012 licences (62 per cent.) more than in 1951-52. By far the biggest contribution to this heavy increase was made by the Hambantota Kachcheri which issued 990 licences for deer in 1953-54, as against 547 licences in 1952-53 and 414 licences in 1951-52, increases of 81 per cent. and 140 per cent. respectively.

Only a minority of licence-holders comply with the requirement that they must return their licences on expiry to the issuing officer with a statement of the animals shot thereon. The legal penalty for non-compliance is that the defaulter may be refused a fresh licence, but this penalty is seldom, if ever, enforced.

In certain quarters there is a misconception that the rifle must be exclusively used to shoot deer on a licence and that the use of shot guns for this purpose is banned. The form of Licence (Form E) is the same whether it be to shoot elephant, buffalo, deer or fowl. A clause on the face of the licence reads, " this licence does not authorise the use of a smooth-bore gun for the purpose of shooting at or killing any animal of the following species : . . . " Unless the licensing authority specifies the species in the blank space provided, there is no prohibition of the use of a shot gun. The matter is one in his discretion. He will, doubtless, specify elephants and buffaloes where the licence is to shoot those animals, but he will not normally specify deer. The owners of rifles are a very small section of the community, the rifle being now a luxury weapon, and to allow only this class to shoot deer would be discriminatory.

It is always open to a Revenue Officer to refuse licences in a particular locality if, in his opinion, that area has been overshot.

Special Protection for the Elephant

As in previous years, the killings in defence of crops far exceeded all other causes of death : they have amounted, in respect of the definitely known cases, to 54 in 1951, 39 in 1952, 56 in 1953 and 51 in 1954, an average of 50 a year or nearly one a week. In successive Administration Reports from 1951 it has been emphasised that this rate of mortality is excessive and detrimental to the survival of the species and that methods other than shooting must be employed to drive elephants away from crops : several of these methods were specified. Comparisons were recently drawn in the Press between practices obtaining in Africa and India on the one hand and Ceylon on the other. In Africa and India the villagers have no guns or very few guns, and they would, naturally, gladly accept any device which is likely to scare away an elephant. But in Ceylon guns are plentiful and the villager has the right to use his gun against trespassing animals. The approach to the cultivator here has, therefore,

to be very different : one cannot merely give him a cracker and tell him to use it in place of his gun; one has to appeal to his religion, to his humanity, to his better nature. To achieve the substitution of a harmless explosive for a lethal weapon by such methods of persuasion is no easy task, especially when it involves much greater vigilance and activity on the part of the night watcher. Nevertheless, this Department is doing what it can by propaganda through Rural Development Societies, by personal appeal to the cultivator and by participation in night watching in selected areas to reduce the extent of shooting. There will be general agreement among people with experience that herd elephants are easily driven away and that where a herd has entered and devastated a field, the watchmen have been at fault. The lone elephant is a different proposition : if he is allowed to enter and to start feeding, it is difficult to dislodge him. He is also persistent : unlike the herd, he is liable to come night after night although he is driven away each time. Most essential is timely action, preferably before the herd or the lone animal has entered and certainly before they have settled down in the field or chena : this necessitates wakefulness on the part of the watchers.

The total casualties during 1954 represent about 9 per cent. of the estimated, total wild population. This is 2 per cent. to 3 per cent. higher than the natural, nett rate of reproduction. Depletion among wild elephants in excess of the birth rate has now being going on for the past 15 years. The present, total population probably does not exceed 900. How near or how distant this figure is from the biological minimum below which breeding ceases and extinction follows, nobody knows. To ensure survival of the species for posterity, not only must the casualty rate be brought down to a figure below the birth rate, but the virility of the species must also be maintained. Degeneration, by in-breeding through isolation and other causes, will hasten extinction.

During the annual drought there is an enforced limitation on the movements of elephants by the necessity to keep within reach of water. At this time there is no chena cultivation at all, and paddy cultivation is feasible only under major irrigation works. The elephants then have a respite from being shot at : by a curious turn of the wheel the drought now comes to the elephant's aid and saves many animals from death or injury from villagers' guns. The present scarcity of elephants in the jungle areas must be obvious to every observant and knowledgable person who travels in them. It is unusual now to see elephant droppings and broken branches on the roads : the animals themselves rarely show up. One may travel from Anuradhapura to Elephant Pass or Wellawaya to Hambantota a dozen times and see no signs of elephants.

The issue of licences in the ordinary course for the capturing of elephants has been banned for a period of 3 years commencing in 1954 : in other words, a licence to capture will be issued only in special circumstances. To enable the Dehiwala Zoo to fulfil its foreign exchange commitments, 6 licences were issued to the Zoo's nominees.

Exaggerated accounts are often spread about the number of elephants in a locality. In the North-Central Province and the Wanni Hatpattu, villages and village tanks are close together, rarely more than a mile or two apart. A herd of elephants will often visit or pass by the tanks or the fields or the outskirts of 5 or 6 villages in the course of a night's wanderings : and next morning all these villages will report having seen or heard elephants during the night. An inference will then be drawn and a story circulated that there are 5 or 6 herds of elephants in the area. This has happened repeatedly in the experience of this Department and has also been, sometimes, the foundation for official action to declare the area as one in which danger to crops from elephants is apprehended.

Tuskers are now very rarely seen : it is probable that there are not more than about

8 in both the Yala and Wilpattu groups of Reserves. On the basis of Mr. Deraniyagala's figure of 7 per cent. tuskers among male elephants, there cannot be more than 25 adult, wild tuskers today in the whole of Ceylon. This small national asset is therefore a very precious one. In the past tuskers were reputed to be more common in Mannar District than elsewhere. In those days the method of capture in vogue in Mannar was that of the Pannikkar, that is by chasing and isolating a selected quarry and noosing it, while elsewhere this method was rare and the common practice was to set traps, selection being impossible except in respect of size: therefore, tuskers could be caught at will in Mannar District but not elsewhere.

Offences Under the Act

The activity of the Hambantota and Tissa Police contributed much towards the greater protection and security of the Yala Reserves. The areas in which poaching and trading in meat are practised on a substantial scale are :— Madhu Road, Mankulam, Tunukkai (Northern Province) ; Wanni Helembewa, Habarana, Manampitiya (North-Central Province) ; Kantalai, Kathiraveli, Padiyatalawa (Eastern Province) ; Maho, Galgomuwa, Eluvankulam, Anamaduwa (North-Western Province) ; Hambantota, Tissamaharama (Southern Province) ; and Embilipitiya, Tanamalwila, Buttala (Uva). Actual whole-time professionals are not numerous, but there are many owners of guns who have arrangements with a buyer who will take everything they are able to supply. Anuradhapura has buyers who provide bicycles and cartridges to their suppliers. The Taxidermist's licence is not a licence to practice taxidermy alone : it includes also trading in the meat of non-game and unprotected animals and most of the licence-holders are engaged in this latter activity. Many eating-houses (most call themselves Hotels) in the jungle areas serve what they call, and what their customers from outside readily believe to be, venison, but it is generally not venison.

The commonest offence is shooting by night with artificial light and the offenders include every section in the community, from the well-to-do who have spotlights fitted on their cars to the villager who walks or sits up with an electric torch. During the drought, poaching at water-holes, in the beds of village tanks and on the banks of rivers is freely indulged in. The main activity of Rangers, Guards and Watchers at this time is patrolling these sources of water, destroying all hides and stages discovered, and felling or girdling trees on which stages have been or could be erected. These preventive measures are not altogether successful but they do have a deterrent effect. The detection of an offender in the act of night shooting must always be fortuitous. A very unusual detection was made near Tanamalwila. A patrol party on a road under construction saw poachers approaching. flashing a torch, and lay in wait for them : while waiting, they saw a leopard shot before their eyes, and were able to arrest the offenders together with their bag.

There are several loopholes in the law and the proof of some kinds of offences is difficult. The evidence often creates strong suspicion, but strong suspicion is not proof, and the Courts will not convict unless legal guilt is established.

Miscellaneous

New Wild Life Reserves in the Gal Oya Area

By order in the *Gazette* of May 1, 1953, the operation and administration of the Fauna and Flora Protection Ordinance (Cap. 325) in the Gal Oya Valley were vested in the Gal Oya Board, and from that date the Department of Wild Life ceased to have jurisdiction in the area of authority of the Board. In the *Gazette* of February 12, 1954, the Gal Oya Board declared (i) a National Park, known as the Gal Oya Valley National Park, and (ii) 3 Sanctuaries, known as the Senanayake Samudra Sanctuary, the Gal Oya Valley North-eastern Sanctuary and the Gal Oya Valley South-

western Sanctuary. Already the Senanayake Samudra Sanctuary has become the breeding ground of large numbers of pelicans, storks, egrets, and similar birds. The Board has appointed its own Wild Life Officer and assistants for the performance of all duties connected with Wild Life Protection.

Field Observations

The following are translations of narratives of how a leopard kills its prey :—

(i) *by Game Guard W. L. A. Andris of Yala Range—*

I was on my way to Yala one evening and, near Wilapalawewa, I noticed a leopard lying beneath a tree. I took cover and watched. The leopard was lying on its belly with its forelegs stretched forward and its gaze was fixed on a herd of spotted deer which was grazing about 100 yards away. It kept tossing its tail about but its head and body were motionless. The unsuspecting deer were nibbling the grass and moving slowly forward towards the leopard. As they approached closer and closer the leopard gradually brought its forelegs back close to its body and kept its head low down, but the occasional twitching of the tail continued. When the deer were within 20 yards the leopard became very tense and I knew that the charge was imminent. Suddenly, it shot forward like a streak and in a flash had seized a spotted doe. It attacked the doe from in front, threw its paws round the doe's neck, seized the doe by the throat with its jaws, and clung on. The rest of the herd ran some yards and then stopped and stood looking on, barking and stamping. The doomed doe stood its ground for some minutes while the leopard hung on and got its fangs deeper into its victim's throat. Then the doe collapsed and fell sideways. The leopard did not relax its hold but pressed the doe, which was kicking and making frantic efforts to rise, to the ground. Soon the doe lay still. The leopard then released its hold, moved off a few yards, sat on its haunches and looked at its fallen victim. Two or three times it sprang back on the doe and bit its neck, and again moved away and watched. Then the leopard seized the carcase of the doe by its neck, and dragged it, the carcase being parallel to the leopard's body, towards the tank. The herd of deer, which all the time remained 30 or 40 yards away, followed the leopard at a distance, still giving the shrill, alarm call.

(ii) *by Game Watcher A. Malhamy of Wilpattu Range—*

About 7 o'clock one morning, at the height of the drought, I saw a leopard about 150 yards away walking across the dry bed of the Maradanmaduwa tank. I followed cautiously, got under a tree and sat down to watch. The leopard had by then climbed up a Dan tree and lay down on a branch about 10 feet above ground. The Dan tree was in full fruit and every day deer and pigs used to come under it to eat the fallen berries. The leopard lay perfectly still on the branch of the tree, only turning its head to look all around. After about half an hour a small herd of 9 spotted deer came across the dry bed of the tank, stopping to nibble every now and again, towards the Dan tree. The leopard became absolutely still. The deer reached the tree and began to feed on the fallen fruit. One of the does came right under the branch on which the leopard was lying. I saw no movement of the leopard which was absolutely still and tense. Suddenly it sprang on the back of the doe beneath it. The doe called out loudly but the leopard kept its hold and bit at the doe's throat, with each bite getting a firmer grip on its throat. At the doe's cries the rest of the herd stampeded for a short distance and then stood and barked violently and stamped the ground with their forefeet. The seized doe then fell to the ground. The leopard continued to bite the fallen doe's throat and to claw its body, the leopard's tail twitching and tossing from side to side all the time. The doe

soon lay still and the leopard got off its kill, moved away 2 or 3 yards and sat on its haunches, panting and watching its kill. It sat thus for about 2 minutes and then got up and walked twice round the dead doe. Then it urinated and scattered the earth with its hind feet and came back to the carcase. It seized the carcase by the neck, and walking backwards, dragged the carcase about 20 yards into scrub jungle and disappeared from view.

(iii) *by Game Guard W. L. A. Andris of Yala Range—*

One evening I was coming round Suduwelimulla when I saw a sounder of 8 adult pigs and 7 small sucklings feeding in a muddy pool. Almost at the same time I noticed a leopard emerge from the jungle edge. I concealed myself and watched. The leopard sat on its haunches and watched the pigs from a distance of about 150 yards for about 20 minutes. Then it rose and walked slowly and cautiously towards the pigs, which were in the hollow of the pool, till it was about 75 yards away when it lay down flat on its stomach with its head low. The pigs were now leaving the pool and moving towards the crouching leopard, unconscious of its presence. The leopard lay absolutely still, with only an occasional slow movement of its tail. The pigs moved closer to within about 25 feet when the leopard suddenly sprang out amongst them. In a moment it was out again, running full speed on three legs, with one suckling held in its mouth and another hooked in the claws of its right, front paw. It ran for about 75 yards and quickly went up a Malittan tree. The rest of the sounder of pigs pursued the leopard, grunting and screaming, but could not catch up with it. The suckling in the leopard's mouth appeared to be dead, but the other one in its paw was squealing loudly. The sounder reached the tree which the leopard had climbed and ran about, grunting, around the tree-foot. Some pigs stood on their hind-quarters and bit the bark of the tree, making various noises. After a time there was silence and I left my hiding place and approached the tree. The pigs were still there and ran away on seeing me. The leopard was on the tree. It had killed both sucklings, placed one on a fork of the tree and was eating the other.

A Visit to Yala National Park—Block 2

By GORTON COOMBE

THE Maritime Section of the Yala Strict Natural Reserve ceased to be a Sanctuary from 1954, and is now a part of the Yala National Park. Entry by visitors is governed by certain conditions, and a special entry permit is obtainable from the Warden, once he is satisfied that the visitor can comply with the conditions, which require the visitor to have suitable camping equipment and a willingness to stay at least 3 days in the Block.

The transfer of these Maritime Plains that now comprise Block 2 is a wise move, as, whilst the Strict Natural Reserve has, in theory, been a wild life sanctuary for some 50 years, in practice, Block 2 has never been inviolate from the presence of human beings. The East coast old Dutch Military Road, which transverses the whole area, is a right of way, and had to be excised from the Sanctuary. We have, therefore, had the anomalous position of a Sanctuary with a right of way transversing the open Park country, where most of the wild life is concentrated during the wet season. To add these plains to the National Park has been an obvious and wise move for some time. The balance of the S.N.R. is little explored scrub and heavy

jungle and is very suitable to continue as Sanctuary. An exploration of this little known hinterland is now being carried out by Wild Life Department Rangers and guards, though all the main features have previously been surveyed. The Ruhuna National Park is now becoming so popular that it is fast becoming too small to cope with the large number of visitors. The opening of Block 2 is, therefore, very welcome to the keen field naturalist and wild life photographer.

The obtaining of an entry permit is the least of the obstacles that have to be surmounted before a trip can be undertaken. Entrance is only permissible from Yala, and the first obstacle is the crossing of the Menik Ganga at the Yala ford. The river at this point is about 100 yards wide and for about 8 months of the year has at least 2 or 3 feet of water running over a soft and sandy bottom. For these 8 months, crossing by Jeep or Land Rover is, therefore, not possible, so the only way is on foot with carts to carry one's gear. The best camping site is at Pahala Potana in the middle of the Block and some 12 miles from Yala. The only well is also at Pahala Potana.

It is not my intention, in this short article, to give a geography lesson, but a short description of the country in Block 2 is required before we proceed any further. To the North East, we have the Kumbukkan Oya, but the North East boundary of Block 2 is 1½ miles short of the river leaving a buffer zone of Sanctuary, to prevent entrance from this side. To the East and South East is the Sea coast guarded by most formidable sand dunes. To the South, we have the Menik Ganga as already mentioned, and West and North is jungle, with a boundary which as yet is only defined on the map ; but can be detected in the field by certain geographical features. Once the Summer drought is in full swing, the Menik Ganga runs low, and from late June, is " Jeep-able," and continues so until the rains break in late September or early October. It must, however, be remembered that all National Parks are closed during the peak of the drought in August and September, when the water problem gets so serious and the minimum of human disturbance to the Wild Life is very essential. So the Menik Ganga can only be crossed by Jeep or Land Rover from mid-June to end of July, and again in early October, if North East rains are late. The river could never be crossed by an ordinary car, and if it were man handled across, the Block 2 roads are too rough, except for a Jeep type vehicle. Having left the narrow strip of jungle that bounds the river, we entered the Yala Wela Plain, the first of the vast plains we were to visit. Yala Wela is some 3 miles across before reaching the next plain of Pillinawa. The first mile of Yala Wela is very rough and full of pot holes, and consists of black cotton soil, which, in ancient times, must have been a fine tract of paddy fields. This ground is bog and marsh during the Monsoon, and the pot holes are mostly elephant made and therefore a sizeable obstacle even to a Land Rover or Jeep. Here, on Yala Wela, we saw our first Wild Life (not taking into account the Ruhuna National Park, which we have had to cross from Palatupana to Yala). Actually, though we passed through Ruhuna at high noon on a very hot July day, we were held up between Buttuwa and Patnagalla by one of the well known Buttuwa lone bull elephants. An incautious or noisy approach to one of these " old gentlemen " of unpredictable temper may lead to a violent demonstration of elephant ill humour. When first seen, the elephant was going in the same direction as we were, but on hearing our car engine, he sidled into the jungle fringe of the road and there awaited our approach. There is nothing actually indicative in their behaviour, and it savours more of a game of scaring the lights out of visitors to a varying degree as the humour of the moment demands. If met on a plain, the elephant's approach can be high speed and very alarming, if met on a jungle fringed path or road the demonstration usually takes the form of a shrill and all too close trumpetting, with a short rush with ears forward and trunk curled.

Actually, we saw one elephant, who had given us a fright, a moment later calmly continuing his disturbed sand bath, with obviously his " tongue in his cheek."

On the Yala Wela Plain, we saw, as we do on every plain, large herds of wild buffalo. For such water loving animals, one wonders how they can exist on the close cropped grass, which, scorched brown by the sun, can have no fodder value. There has been no rain for 2 months, and the drought cannot break for at least another 2 months.

We saw a few spotted deer and wild pig, and one elephant, very black from a recent bath in the river. The deer were concentrating in the deep jungles near water and the large herds to be seen feeding on the bush grass of the plains during the wet weather are now seldom seen till the rains come again.

After 1½ miles, we reached Katapilu Aru, a narrow stream of short length. It is fed by jungle springs, the old and abandoned Katapilu Wewa, and, during the Monsoon, the excess flood waters of the Menik Ganga. The crossing of this stream can be a problem, if the banks are under cut, but we are fortunate as heavy silting of the stream bed has occurred and the ford is too easy to cross.

We now entered the vast Pillinawa Plain. To the seaward side are high sand dunes, beneath which is a brackish water lagoon and swamp fed with fresh water by the Katapilu Aru and salt water, when the sand bar breaches at the Modara. The swamp is of considerable size, and forms an oasis. In spite of the mild saltiness of the lagoon, it is much liked by buffalo, spotted deer and wild pig ; a few sambur are also to be seen wallowing on its brink.

We also saw the few remnants of the cattle, now very wild, abandoned when Ranger Engelbrecht died some 30 years ago. Engelbrecht kept a considerable herd from which he recruited the span of oxen he used for the cape cart, in which he did all his travelling through the Reserves. These cattle multiplied prolifically to 200 or 300 head, and after a few years, over-ran the Sanctuary. They became extremely wild and quite unapproachable. Suddenly, during recent years, a rapid decrease has occurred in their numbers. The dozen black animals we saw are reported to be all that remains after the depredations of drought, predators like leopard and jackal, and in-breeding, have taken their toll. These particular animals never seem to have strayed over the rivers. Furthermore, the trespassing Tissa and Kirinda cattle, which infest the Ruhuna National Park, do not seem to mingle with these Engelbrecht animals. The trespassing cattle in the National Park are becoming a serious problem, as, apart from being disease carriers, they make serious inroads into the grazing and water reserves, especially during the dry weather. Fines and refusing the owners permission to enter the Park and catch their cattle are no real solutions. Mass shooting and driving into stockades and auctioning the catch is likely to have more success, though, naturally, one must not overlook the probability of " political reprisals."

The stray and trespassing cattle problem is Islandwide, wherever there is any cultivation, be it tea, rubber, coconuts or village crops, and in dealing with it, we deplore the lethargy of the Central Government, Provincial Government Agents and their officials.

In the centre of the Pillinawa Plain is a large fresh water pond, containing ample palatable and potable water. Near the pond are sufficient small trees to provide an excellent camp site in all weathers. At our visit, the South West Kachchan was blowing full blast, so that gusts of wind were liable to broadcast our camp gear and food over the plain. We spent one of our nights camped here, and very pleasant and cool it was under a clear sky and a moon one day past its full.

In the late evening and next morning at dawn, we went to Agara Wewa, a small muddy tank, with breached bund, lying beneath the sand dunes guarding the Northern end of Pillinawa. This tank contained a fair quantity of reasonable

looking water, and from the tracks around its edge, was much frequented by all types of wild life. Unfortunately, as our visit coincided with the full moon period, many of them were calling at night to slake their thirst. We nevertheless saw an elephant, who caused us to rapidly evacuate our very primitive " Kottawata " (hide of branches). Having drunk his full, he proceeded to browse altogether too near for our peace of mind, and the manipulation of our cameras. Deer, buffalo and pig, and an occasional solitary sambur, were also visitors. But we were disappointed, and expected much more, considering that this was the only good water for many miles around.

After Pillinawa, the track to Uda and Pahala Potana enters very arid scrub jungle. The road is reasonable, except for a 100 yards stretch, where one crosses the small Agara Aru, a stream that feeds the Wewa, mentioned earlier, and which eventually enters the sea with the Katapilu stream at the Modara of the Pillinawa Plain. The stream was quite dry, but the road was heavily eroded, and at this point, requires a deviation, which could be cheaply cleared in a very short time.

We proceeded for some 3 miles through this scrub until we reached the outskirts of Uda Potana, another vast plain, even bigger than Pillinawa. At the entrance, we found the corpse of a small bull elephant, which had apparently just died of natural causes, or possibly drought. Carrion feeders, like wild pig, jackals, and crows, were already busy.

Wild Life Department Ranger and Guards had already seen the corpse, and as the aroma was becoming distinctly strong, we hurried on across the plain. There was not a blade of green grass to be seen, and only a few miserable buffalo eking out an existence. We crossed a small brackish stream, which was fast becoming liquid mud; around it stood a flock of painted storks, guzzling on the frogs and small fish, that were slowly becoming stranded by the disappearing water. Amongst the painted stork, we saw a few pelican, black-headed ibis, open-bill storks, two black-necked storks and one spoonbill. All these waders have probably come from the Villu Bird Sanctuary of Kumane.

Within a mile of leaving Uda Potana, we reached the large pond of Katagawala—a haunt in days gone by of the well known wild life photographers, G. M. Crabbe and F. E. Mackwood. The pond was very full of moderately clear water. We paid several visits during our 2-day stay, but were very disappointed by the few animals we saw and nothing of special interest.

In the past, I have watched at this pool and been kept very much on the alert by a steady stream of peafowl, deer, sambur, pig and buffalo, and once by a pair of leopard. Then the water was lower and the surrounding jungle even more drought stricken. The full moon was one reason, but tracks are few ; so many of the wild life have left temporarily or permanently for the riverine jungles. Admittedly, I have not seen these famous Potana Plains for over 15 years, but I hear the solid herds of game of African dimensions, which one expected to see, now do not appear to exist, for reasons I am not competent to explain.

Within another mile, we passed another pool, that of Theroruwawala and immediately afterwards reached the well erected in 1927 for Kataragama pilgrims during their July journey from far away Jaffna, Trincomalie and Batticaloa. Many of these pilgrims spend most of the year travelling either to or from the shrines of Kataragama. We purposely arranged our trip just before the first pilgrims were due to appear. These are generally the boutique-keepers and others, who ruthlessly fleece the devotees at the end of their long journey.

At Potana, travellers, up to 2 years ago, were considerably alarmed by a large male leopard, who was said to have lost his fear of man and stood his ground, snarling, when approached by a party. The leopard was said to be partial to the remains of the pilgrims who died en route, as many are said to each year. But no half eaten human remains have ever been found, so the

authenticity of the tale is of some doubt. But, undoubtedly, the animal itself did exist and has been seen by many, though not for the last 2 years.

The well was full of water, but unfortunately, was heavily contaminated by oil and dead frogs, which rendered it quite unusable, though the watchers, who accompanied us, told us that pilgrims will find it quite palatable ! There is truly a Providence that watches over these families of men, women and children on their trail to far off Kataragama.

We had brought ample drinking water in 2 × 4-gallon carboys, but for washing, were fortunate in having a brackish mud hole near the camp site.

The camp site was a pleasant one under the shade of large trees, with a view of a corner of the Pahala Potana Plain. Unfortunately, the ticks were bad amongst the dead leaves and grass, and once the breeze died down at night, the mosquitoes were very troublesome, so that, in the middle of the night we were compelled to put up our mosquito nets. Next time we shall be wiser to camp further from the water and more on the open plain.

We had left Poonagalla at 5 a.m., and reached Pahala Potana in roughly 6½ hours, including ½ an hour at 8.30 a.m. for a talk with the Palatupana Ranger. From the Menik Ganga it takes 2 hours slow Jeep running to do the 12 miles to the Potana well.

By 3 p.m., when the noon heat was waning, we took a run to Nabagas Wewa in the Northern corner of the Pahala Potana Plain. There was a fair amount of water, but the extent of the tank is too large for photography, being some 300 yards long. In any case, from the tracks around the sandy edge of the water, there was nothing of interest drinking at this tank. If only the bund could be restored and the tank bed deepened, what a valuable source of water it would provide through the summer drought months of June to October ! This tank usually dries up in August.

After a short stay, we proceeded round the edge of the plain and near the lagoon, which starts with Etheliwela and finishes with Mahirawa. We saw many buffaloes, pigs and sambur. The springs at Mahirawa were not worth visiting, as the salt water lagoon was too full.

Some 15 years ago, when Nolthenius and I were on a special trip through the S.N.R., we paid several visits on foot to Mahirawa, or Mahiraduwa as it is some times known. We sat over the springs that bubble up from the base of the sand dunes. We spent a whole afternoon, photographing a herd of 8 elephants, first bathing in the salt water lagoon and then digging for drinking water from this " place with the large springs." The diggings left by the elephant were afterwards used by deer, who are unable to dig in the sands.

All the animals seen were nervous of the approach of our vehicle, and unlike those in the National Park, who are now well accustomed to the sight of cars, fled when we got too near. As we crossed Etheliwela, we disturbed a leopard stalking a small sounder of pigs, amongst them some very succulent " squeakers." He had been lying " doggo " in a depression and would undoubtedly have killed one, if we had not appeared. We had an excellent, if distant, view of the leopard galloping over the plain back into the jungle.

The next day, after unsuccessful early and late morning visits to Katugawala, we decided to motor to Gajabawa Plain, a distance of some 6 miles and perhaps 3 miles short of Kumane and the Kumbukkan Oya.

We crossed Etheliwela and entered a 5-mile stretch of close jungle, where the track is narrow and overgrown, as it is seldom used except by the occasional cart. We were only a mile or so from the rocky outcrop, which contains Walaskema with its 4 rock holes holding water. It is frequented by many bear and probably leopard, though I have never seen the latter. We were near the track up to Walaskema and had stopped to cut an overhanging branch, when a fine large male bear appeared, with a well

defined crescent on his chest, the mark of a "Rahu Wallaha," according to the Sinhalese tracker of Kumane, who was with us. With this male was a small female. We got an excellent view, but in the excitement of the moment, I forgot to use my camera.

Shortly afterwards, we walked the few yards from the track to Walaskema, and though we stayed a while then and on the return journey, we only saw a couple of sambur, and they did not leave the jungle.

At the main Kema, there is a well worn ledge of rock which is smooth from the ancient Veddahs sharpening their arrow heads and knives. From the top of the rock, we got an excellent view of the Mandagala ridge which contains the "Cave of the Blind Queen," and the prominent hill of Dematagala and, in the far distance, the Kataragama hills and the mountains of Uva. Behind us we heard the roar of the surf breaking on the forbidding open coast line. There were few jungle animal noises, but a number of birds were calling.

We continued our trip to Gajabawa, and very shortly met another male bear on the track. He was making for Walaskema, but was so startled at our approach that, with remarkable agility, he climbed up a Palu tree, which overhung the track. We stopped and both wondered who should make the next move. We made a tentative approach, and the bear climbed higher and peered apprehensively at us from the opposite side of the tree trunk. He could not go much higher as he was a heavy animal and the branches he was cowering on were definitely not up to weight and might well have made his descent more rapid than his ascent. After watching him for a short while and taking some photos, which are unlikely to register any thing, we shot under the tree at speed. This brought the bear down the tree and quickly off in full flight. We continued to Gajabawa, but this plain was singularly uninteresting. It was a dust bowl, without any feature to relieve the monotony of nearly one mile, unless one took notice of about 100 buffaloes, who formed a phalanx gazing at our approach.

Having nearly got bogged in the middle of the plain in soft black mud with a thin dry crust, we decided to start the return trip. This uneventful return we accomplished just before dusk. The sun was setting behind the Uva Mountains. We could see distant lightning of a thunder storm which, we hoped, was producing urgently required rain in the tea district.

The next morning we broke camp, as we had seen all we wanted, and the quantity of wild life was disappointing. We moved camp to Pillinawa, to which I have already referred. The night here was cold, as we were camped out on the open plain unsheltered from a heavy South West gale, the kachchan which blows perpetually in this coastal belt. In the early hours, we were glad to get under a blanket.

Next morning, at dawn, we paid one final visit to Agara Wewa, but once again we were disappointed. The animals have become nocturnal due to the full moon. At our return to camp, we were amused to find our servant and driver cowering behind the tent watching an old elephant cautiously approaching the fresh water pond, alongside which we had camped. The elephant had spotted the camp, but was determined to have a drink. He was within 50 yards of the camp and water, when we appeared from the jungle in the Land Rover. The elephant lost his nerve and, with much trumpeting, bolted back to the jungle edge, where he remained a while trumpetting and generally registering frustrated indignation. He soon departed for other water, probably the Agara Wewa, from which we have just come.

We had breakfast, broke camp and started our return journey. A refreshing bathe in the Menik Ganga en route and a picnic lunch, followed by 5 hours motoring, got us home at dusk.

We enjoyed our 3-day visit to block 2, though the amount of wild life seen was disappointing, when judged by the standard of former dry weather trips. The trip unfortunately coincided with the full moon, but this was unavoidable. Later in July would have been better, but the country would have been disturbed by Kataragama pilgrims, who were due to appear the next week.

Beche-De-Mer—the Sea's Strangest Animal

By S. V. O. S.

SEA-SLUGS (Holothurians) are found in abundance not only off the north coast of Ceylon—for example, in the seas of the Tenmararadchi and Island Divisions from where they used to be exported to India—but also on the East Coast around places like Kalkudah and Passekudah.

When I first came across them years ago, before I had made a study of them, they looked so funny—and I did not realise that they were live creatures of the sea. They seemed to me like rolls of cow-dung, or badly-stuffed little bolsters covered with black leather. I even wondered if they were crude roll-cutlets, or the long, black, dried-up pods of some plant. Some boys might have mistaken them for black "muscat aluwa" or some other form of confectionery.

Careful examination, however, showed that they were sea-slugs, which the Tamils called "kadal-addai." The people round about did not eat them though they caught for food crabs, fishes and lobsters which abounded in the neighbourhood.

Photo by S.V.O.S.

Sea-slugs, some of them coated with sand, are lying scattered on the Passekudah beach during ebb-tide.

But whatever the case may be, the co-operative societies of the Batticaloa District can help Ceylon by helping traders to buy them up to be exported to China and Japan and thus increase our revenue.

Some notes on the Beche-de-mer (which is exported as " trepang " for the making of soup and other food preparations, especially in some of the far-Eastern countries) will be of interest. These sea-slugs found in our coral strands and reefs, and called also " sea cucumbers " by some people are a species of echinoderms living in the sand mud and seaweed among the rocks.

In size about 2 to 12 inches in length, and usually picked up at ebb-tide, they once used to be dried and exported in large quantities as " beche-de-mer " or "trepang" to far-off China, where, like the Edible Birds' nests (which are used to make soup) they are regarded as a great delicacy. The Chinese, after boiling the slugs with sea-weed, shark's fins, edible-birds' nests and other strange things, make them into soup which they regard as a luxury.

Queer creatures these " sea-puddings " are sometimes lying quite still and looking lifeless, and at other times, not only stirring themselves and rolling over, but bending and twisting about. And when they want to move, it is great fun to watch them bunching and stretching themselves, and even changing their shape in a most peculiar manner. Feeding chiefly on coral insects they live by suction, and possess the simplest possible anatomy.

One will notice that when disturbed, the sea-slug imbibes and ejects through its three-cornered mouth a great quantity of water. It even discharges the contents of its stomach—sand, small stones and comminuted coral and shells—until it is reduced to a flaccid mass.

And then, by reimbibing water, it inflates itself to its original size. Rows of tube feet help the sea-slug to walk along, though very, very slowly. Another remarkable thing is that, round the mouth, the lazy creature gradually unfolds a circlet of delicate tentacles which are used to secure food.

More interesting than all that is the fact that the sea-slug occasionally throws away all its organs—mouth, tentacles and all—reserving only the empty skin-covering and giving one the appearance of a strange creature which has committed suicide.

And then, strangely enough, it re-grows its lost parts. Not infrequently (naturalists tell us) it breaks itself into two, and then each half, moving off becomes a separate sea-slug.

THE MONKEY'S VIEWPOINT.

THREE monkeys sat on a coconut tree
Discussing things that are said to be ;
Said one to the others : " Now listen, you two !
There's a certain rumour that can't be true :
That man descends from our noble race.
The very idea ! It's a dire disgrace !
No monkey ever deserted his wife,
Starved his baby, and ruined his life.
And another thing : You'll never see
A monk build a fence round a coconut tree
And let the coconuts go to waste,
Forbidding all other monks to taste.
Why if I put a fence round this tree,
Starvation would force you to steal from me.
Here's another thing a monk won't do :
Go out at night and get in a stew ;
Or use a gun or club or knife
To take some other monkey's life.
Yes, man descended, but here's my fuss,
He didn't, brothers, descend from us."

AUTHOR UNKNOWN.

The Ruhuna National Park

By H. E. PERIES

WE were able to visit this Park for a few days in January, 1954, and in April this year. It was quite wet in January and there were myriads of migrant waders round the lagoons. In April this year there had been no rain for some weeks and the migrants had left or were leaving. We saw only a few waders which we could not identify, a few Greenshanks and Marsh-sandpipers and one flock of Golden Plover, with black patches on the underparts, and apparently ready to leave for their nesting haunts.

The Park is now 91¼ square miles and adjoins a strict National Reserve, to which access is severely restricted, on the other side of the Menik Ganga. The area is well roaded and, in addition, there are a number of jeepable tracks. Visitors are not allowed to leave their vehicles except at specified points and a tracker has to accompany each party. The enforcement of this rule has resulted in the animals becoming much less shy, an improvement which was noticeable to us as compared even with January last year. One tends to think of Yala as a large uniform area with low rainfall (the average is a little under 30 inches a year) but, on closer acquaintance, one finds it to consist of areas of very different character, each with its appropriate bird life. There are three bungalows for visitors to the Park ; one by the sea at Buttuwa, with a large rock in front of it ; one at Yala itself, by the Menik Ganga with large trees around it and high forest in the Strict Natural Reserve on the opposite side of the river and the other at Palatupana, at the entrance to the Park, in sandy scrub-jungle. At Buttuwa, we saw the Ceylon swallows, hawking for insects over the rock, and babblers of various kinds but otherwise only the white-eyes, sunbirds, bulbuls, flower-peckers and other common species which can be seen even in Colombo. We saw no pigeons and no peafowl roosted near, though some visited the vicinity during the day. A single black-necked stork frequented the open stretch of water near Buttuwa and we also saw an Indian Darter, drying its wings in its characteristic attitude.

In addition to the small depressions and marshes filled during the rains, there are tanks at Wilpalawewa and Uraniyawewa and a large water-hole at Deberagaswela which contain water throughout the year.

Each of these carries a population of snake-birds, jacanas, little cormorants and grey heron (we did not see the purple heron here), and in the shallower, open stretches black-winged stilts, greenshanks and pond herons. The migrant ducks and whistling teal also visit these places.

Palatupana stands in a sandier area with scrub-jungle and open, sandy areas. The sloping pebbly areas around small tanks which fill with water in the rainy season but are dry for the rest of the year, have numerous large and lesser sand-plovers. Ringed and Kentish-plovers are also common and finch-larks abound. We also saw a colony of Baya weaver-birds building their nests. A great stone-plover was here in April and in January we saw both stone-plover and the stone-curlew.

The road between Buttuwa and Yala passes through the plains. These consist of open stretches of grass land with isolated pockets of water, where buffaloes wallow, and clumps of trees. In these, the pied fan-tailed flycatchers are common. The yellow-fronted woodpecker also frequents these areas and we saw numerous peafowl and, by the roadside, particularly after rain, the Ceylon jungle-fowl. We also saw what we thought was an immature Legge's Baza. It was too light coloured for an adult and Wait says that that species keeps to the up-country areas. It obliged us by sitting for its portrait. A crested Ceylon hawk-eagle also obliged us but, in my excitement, I must have shaken the camera.

Peafowl roosted in the high trees besides the Menik Ganga and we heard their characteristic

calls from about 4.30 a.m. in the morning. One of our party found a peahen's nest, with four eggs, in the undergrowth by the side of the bungalow. We watched a peacock dancing to a single hen but an attempt to photograph it, in colour, was a failure.

Peafowl seemed to prefer ground with more undergrowth than the Ceylon jungle-fowl, many of which were to be seen. On the Menik Ganga a pair of pied kingfishers fished together. They must have had a nest in the bank. We also saw a single stork-billed kingfisher and I had a glimpse of the three-toed flying low over the river. We were told he paid a call at the bungalow but all of us were out. A pair of chestnut-headed bee-eaters were feeding young on the trees beside the Yala bungalow and there were also many Ceylon green bee-eaters. The blue-tailed bee-eaters have generally left Ceylon by April. The pigmy woodpecker visited the large rain-trees beside the river in the bungalow compound. The green barbet and the yellow-fronted barbet were also common in this part of the Park which has tall trees. The three common sun-birds and the small Ceylon white-eye were found here too and we heard several shamas but could not see them. We also heard the nightjars but did not know enough of their call to identify the species, and we saw their red eyes, shining on the road, one evening when we returned late. The black crow was all too common but, surprisingly, the house sparrow had not yet established itself. There were Ceylon mynas also but we saw no Brahminy mynas on this visit. During our January visit, we saw both Brahminy mynas and rosy pastors.

The green imperial-pigeon was a frequent visitor and roosted in the trees by the Menik Ganga and the common green-pigeons were also frequently seen. The road to Situlpaluwa passes through high forests. Here we saw the orange minivet and the green-billed malkoha and shamas flew across the track, frequently. We met with surprisingly few plaintive cuckoos. They had been quite common in January.

We attempted a number of photographs both in black and white and also in colour. The colour shots of animals were disappointing because, almost invariably, the animals were in partial shadow which was much too contrasting for colour film. With birds, though I used a 20 c.m. telephoto on a Leica, the attempt to locate the bird in the photographs was often a failure. We were luckier with colour shots of birds and the enlargements one gets, by projecting a transparency, are of course out of the question with black and white.

Finally on our way back, near Hambantota, we saw for the first time the unforgettable sight of a large flight of flamingoes, circling round and round above one of the lagoons. Our coloured photographs did come out but do not do justice to the amazing reds, pinks, blacks and whites of these magnificent birds.

The Ruhuna National Park in 1926

By MRS. TUTEIN-NOLTHENIUS

(NOTE BY EDITOR.—*The following account of a shooting trip describes conditions in the tract of country that is now the Ruhuna National Park. When visited by Mr. and Mrs. Tutein-Nolthenius in 1926 it was still a Resident Sportsman's Reserve and open to shooting*).

OCT. 31st.—Leaving West Haputale at 6.30 a.m. we stopped at Tellula for sandwiches and a drink and then motored on to Tissa for breakfast ; quite an excellent one. On the way down to Tissa we saw a dead elephant on side of the road. Arriving at Palutapana at

2 p.m. we went for a walk with Hugh and saw some deer ; Hugh left at 4.30 p.m. We enjoyed dinner after a long yarn with Engelbrecht and turned in at 7.15 to the sound of heavy rain. Our alarm went off at 4.30 a.m. but we did not start out until 7 o'clock ; walked four miles but saw nothing, the country being too dry. We therefore decided not to camp at Butawewa but we put up the tents at 11, had some food and slept or rested till 3 p.m. and then started for Yala ; country was quite green. On the way we saw a small elephant quite close and several herds of deer ; a violent thunderstorm, soaked everyone to the skin. Con stalked a herd and shot a stag stone dead at 60 yds. ; first blood with a new rifle ; most thrilling ; head 29 ins. and just out of velvet. Carts passed shortly after. Walking in front of the carts we saw a huge elephant, so we waited for carts to come up in case it attacked. Wading through mud and rain we reached camp, put up the tents as quickly as possible and got the fires going ; after stiff drinks, quinine, hot bovril, eggs and deer liver we retired to bed and slept too soundly to hear any noises. Camp is beside the Yala river, on the borders of the sanctuary. Everything is wet and beastly—how shall we get our clothes dry ? Heard curious sounds from a herd of deer but discovered it was caused by the hornbills going to roost ; saw a Hoopoe.

Nov. 2nd.—Had a lazy morning and a bath in sections outside the tent. Kidneys for early tea then tidied up camp and hung all the wet things on ropes and bushes to dry. While doing so, heard a shot early and several others in succession later ; went out for a stroll and met Con with a huge bear skin ; he told a thrilling account of its death and their narrow escape ; his first shot was at a stag. Excellent curry and rice for breakfast followed by fruit ; turned in and snoozed till 2.30 p.m. then went out at 3.15 after cocoa and toast. Lay behind bushes, mostly on thorns, watching a large herd of deer ; one stag had mis-formed antlers. They all came quite close to me until I bowed to them ! Later saw several more herds and Con marked down a good stag for to-morrow. Saw a buffalo in a water-hole. Was greatly amused watching big beetles rolling balls of dung twice their own size. In the evening sat out having drinks till 7 p.m. and then retired to bed after deer soup and stew ; it rained heavily during the night and was cool enough to have a rug on ; two fires kept off the elephants.

Nov. 3rd.—Got up late to find a great commotion going on outside—the river had suddenly risen and was a raging torrent, full of dead trees, etc., the meat drying place was submerged, the owner of the meat having rescued it by plunging in up to his neck in water. For some time, I thought the camp was in danger of being flooded as the river rose at least four feet in an hour. A carter swam to the rescue of the deer and bear skins which were hanging on a tree. Con returned early, having heard the river ; he had seen all sorts of game and missed a shot at a stag. Just before 11 a.m. the water began to subside and at 3 o'clock, when the trackers turned up, they advised moving camp before night fall as the place we were in was sometimes flooded. In the evening we had a delightful walk, saw several herds of deer but no head worthy of Con's rifle. For a long time we sat at one place waiting for them to come out of the jungle ; yesterday's stag, with his mis-shapen antlers also appeared. We came back at 6 p.m. to find the camp repitched in a most delightful open plain, far nicer than the stuffy smelly place by the river. Things were not quite ready, so we had a comic supper, in bed, of celery soup, scrambled eggs and corn ; I never saw so many insects in my life but it was a very cool evening.

Nov. 4th.—Con went off early but I got up late as I had a raging cold and sore throat. Tidied up camp and put everything out to air, making use of an old carved stone to which to tie the rope. Our Malay carters turned up with a deer ; quite a nice head which I photographed. I was furious to find that the carters had taken every bit of meat ; just then Con arrived, having shot a jungle cock and a stag. He gave the

carters hell and divided the meat. When Con had cooled down, we scrambled through the jungle to the sea, about ¼ mile away, to find the shore covered with debris from the river and the sea filthy. We made frantic signals to a small passing ship, pretending we are stranded, but, alas, she steamed away ; we picked up shells and some lovely flat, polished seeds, and also saw the " Garnet Sand." Back to a lunch of liver and fruit, we rested and snoozed till 2 p.m. then after our cocoa and toast, sallied forth to Gonalebbe where we had seen some deer cross the water on our way in ; saw hundreds of deer and several good stags, but the wind was wrong so we couldn't get near them. Then down came the rain in sheets, quickly soaking us through, so back we came to camp and changed and sat in the dark as long as possible to avoid the " poochies " ; after a dinner of deer soup and stew and a hot water and lime we went to bed. For safety during the night, we had fires lit and lanterns hung on trees to keep off an elephant which is said to have killed a man. At dusk many peafowl were yelling like cats.

Nov. 5th.—Another glorious morning ! I saw a herd of deer from my bed, then got up and had a gorgeous hot bath in the tent as I find outside rather too public. Had everything aired and dried and then went through stores, etc.; Con arrived back with a nice stag and I took a photo of the trackers carrying the meat. At 2 p.m. we set out for Gonalebbe ; as the wind was right, we crept through the jungle coming out at the exact spot the tracker had pointed out to us. A large herd was feeding in front of us, with a big stag in it. We sat for over an hour and saw three buffaloes with two calves, two jackals, and two pigs, thin miserable little beasts ; they came right up to Con who was lying in a thorn bush and, when they saw him, struck their front legs straight out and snorted. When they winded us they were off. Another herd approached from the opposite side, led by a hind far in advance ; two lovely stags were prancing along as if the whole place belonged to them. At last, the first herd moved slowly forward and there was our stag, a very difficult shot as hinds kept on passing him as he was grazing. Bang—the stag fell and the herd galloped off ; we were all trembling with excitement ; suddenly he got up, badly wounded and staggered off. Con had two more shots at him but he carried on into the jungle with Con and two trackers in pursuit. I waited behind and was much interested watching the beetles burying balls of dung in the soft sand. A shot rang out —that has got him I thought, but no, out came Con having tracked the stag for a long way. He had shot a 10 ft. python, of which the trackers were terrified ; we brought it home and had it skinned. Con will go after the stag again in the morning. Took two flash-light photos of the tent and dependents ; so ended a perfect day.

Nov. 6th.—Lovely morning, with only one slight shower. Had beds and everything out of tents to air ; very hot so sat under my umbrella. Con came back with last night's stag ; he had found him lying stone dead and was awfully pleased. Slept all the afternoon and went out later (after cocoa) close to camp and sat for one hour under a big tree waiting for deer to come out ; we saw a mongoose and a turtle but no good heads, so went for a stalk through lovely jungle and suddenly saw a good stag. Con and tracker started running to head him off ; I tried to follow but the stag saw me, so I dropped and stopped behind with the other trackers. Hearing a shot, we advanced till we met the trackers and found Con, trembling with excitement, heat and much running—he had crept into the jungle after the stag, found blood-tracks and discovered him lying dead. Returned to camp as it was getting dark ; glorious lightning ; dinner in bed at 8 p.m. ; rained steadily all night.

Nov. 7th.—Con started off early for Talgas, taking lunch and not meaning to return till 5 p.m. ; a very dull morning, inclined to rain ; everything in camp damp ; went to the sea and bathed but could only sit on the sand and let the waves come round me as it was too rough.

Played about till 9, and was on my way home when I met Con who was returning having shot a stag with an excellent spread, 32 ins. in length and thick horns ; much to my delight he had decided to return—I was not looking forward to a whole day alone. He bathed and we returned for lunch and later went out along the dunes for Sambur. Tramping over the sand we came to an old pottery, with heaps of pieces of pots lying on the sand ; we picked up bits of old bracelets, made of a black substance and then saw four sambur. We watched them for a long time ; saw two star tortoises and a quail with three tiny babies. When we got back to camp we found great excitement as a carter and a watcher had crossed the river to the Sanctuary to fish ; when they attempted to get back the river was in flood. The carter was brought across on a rope, but the watcher was afraid as it was getting dark, so he spent the night in a tree close to the remains of a stag which had recently been killed by a leopard. What a chance for us, had it only been on our side of the river ! Have seen very few birds other than bulbuls, barbets, storks and sparrows.

Nov. 8th.—Alarm rang at 4.30 a.m. ; we got up as soon as it was light, packed all our remaining clothes, etc., had tea, saw the tent taken down and what a desolate scene remained ! Carts were ready to start by 7 o'clock so off we set, *via* Gonalebbe and then stepped into an enchanted forest ! All along the path, the bushes were covered with yellow star-like flowers, smelling like lilac and other bushes of white stars smelling of stephanotis. We came to some very fine rocks of which I took a photo ; a peacock flew onto the top, such a lovely sight. We hoped we might see a leopard sunning himself on these rocks but the wind was wrong so we had no luck. One good sambur stag crossed the path in front of us. Con caught a talagoya (Monitor-lizard) by the tail so I took a snapshot of him and we then let it go. Pedris gathered me a handful of the black and red seeds. We came by a road made by the Dutch, some 300 years ago, out onto the plains where we made our first halt on the outward journey, then an arid waste, now green and lovely after the rains, with several herds of deer and buffalo. Walking beside the lagoon, we found a dead tic-polonga (Russell's Viper). Our new camp-site is wonderful ; it is in a grassy hollow, surrounded on one side by scrub jungle, on the other by huge rocks and the ocean ; far in the distance a glorious view of the lagoon and talawa below. As soon as the tents were up we bathed and tried to fish, but the sea was too rough and sport was poor. On the rocks, however, we found some very big oysters and had them for breakfast—delicious ! As usual, Con went out in the evening but I stayed behind and had a delightful bathe at the other side of the lagoon, where I could swim and float with no horrid backwash or sand. In the evening, sat watching for sambur till Con returned ; lovely cloud effects, sunset, new-moon, stars and a big thunder-cloud with lightning all at the same time. Con came back having seen a herd of over 350 deer advancing in cavalry formation along a half-mile front ; he watched them for a long time but could not bring himself to shoot. At this camp there is a lovely breeze off the sea.

Nov. 9th.—Con started out early while I had tea at 6.30 and, escorted by Kitnen, went off to bathe in the bay ; hearing a shout I turned and there was Con carrying a fine stag's head, the trackers following with the spoils. Out at 3 o'clock to Urane to watch for sambur. We sat under an old hollow tree and saw many tortoises, a few buffalo and some deer. One old bull buffalo came out alone ; at first sight we were sure it was an elephant ! He lay down quite close to us and at once a mynah and some crows sat on him to catch ticks. Suddenly, I saw a large snake on the grass advancing towards me ; we sprang to our feet and threw sticks at it but, instead of frightening it away, it dashed into the hollow tree beside us and coiled up there ; Con drove it out with my walking stick. Luckily it was only a Rat-snake and not a tic-polonga or a cobra. When the

sun got lower, we walked along the sand dunes still looking for sambur. What a walk—like going through the Sahara ! We saw only one hind, which Con stalked for fun, and they stood looking at each other for several minutes ! Returning to camp, we packed all we could into the carts before dark. Suddenly 20 coolies appeared ; they had walked from Palutapana on their way to Panama, carrying bundles of winnows and pots over their shoulders. They camped on the rocks and we gave them some meat.

Nov. 10th.—The alarm-bell rang at 4.30 a.m. ; we got up in the dark, packed everything at lightning speed and started at 6.15 a.m. ; as we went through the jungle we saw fresh leopard tracks and hoped to run into him round every corner, but we had no luck, so indulged in a short rest half-way during which the carts overtook us. We hurried on and reached Palutapana 8.45 a.m. a record walk, but we felt sad that our glorious trip was over. We were met by Engelbrecht, who talked for some time, then to bed and a long rest as we were both very weary. After tea, Con went out with trackers while I went for a walk with E. We tried to see the elephant which comes round the bungalow every night but just missed him as the wind was wrong and he pushed off. Con returned empty handed. We sat out till 8.15, listening to yarns from E, all of which were most interesting.

Nov. 11th.—In spite of not sleeping well, we neither of us heard the elephant which E. had to chase away in the middle of the night ! Vaguely in my sleep, I seem to have heard the word " arni." We got up very early and sat about till after 10, waiting for the car to come for us. We amused ourselves playing with a tame sambur and watching the sparrows building their nest in the roof. At last the car arrived with Hugh and we all talked hard all at once ! Tissa for breakfast and on to Tellula for tea. After tea we went out shooting. I had to be carried across the river by the trackers, and felt sure they would drop me in the middle. We walked for about 8 miles, through thick jungle mostly, and Hugh had a shot at two pigs ; he missed the first, but hit the second. We had a rest on the top of a small hill, looking right over the jungle, the Haputale range being clearly visible in the distance. From where we sat, we watched some wild buffalo ; then back to the resthouse which is greatly improved since our last visit in 1925. For dinner we had soup, roasted porcupine and jungle-fowl, a real meal out of the jungle. A glorious evening but we went early to bed ; it was nice to be in a real bed again but we were very sad that our glorious trip was over.

Nov. 12th.—Con and Hugh out at 5 a.m. At 8 o'clock I picked them up in the car. They had had no luck, as there are very few deer in this part of the country. After early tea, at 9 a.m. we left for home, reaching the bungalow at noon. So ended my first big-game shooting expedition in Ceylon ; I loved every moment of it.

Reminiscences of Leonard Woolf

By F. J. S. TURNER in *Daily News.*

(June 29th, 1950.)

WOOLF and I shared a bungalow on Beach Road, Jaffna, in 1905, on and off. It was the Forest Department Provincial headquarters: " on " when I had to be at H.Q. and "off," which was far the greater slice of time, when I was in the Northern Wanni, under canvas, on special duty. Still, we saw quite a lot of each other at work and play. Earlier, John Still had let me share with him in Anuradhapura, but owing to his fondness of unpleasant pets, " Mary," the Cobra, included, I left John with many regrets. He was much more congenial than Leonard Sidney. They were

very different personalities but both had very disarming smiles.

But I must abandon expatiation and come to my point and that is the lost Yala Game Sanctuary Watcher, " Punchirala," I knew him very well, as did Boyd-Moss, Horsburgh, Murty, W. Thornhill, Crabbe and George Forrest, but I never heard him spoken to or of as anything but " Baro " and his hamlet was Katagamuwa—not Kataragama.

Katagamuwa is actually " The Village in the jungle." I haven't seen the book for over 35 years but I think, for the purposes of the novel, it is called " Beddewewa," Baro was not a Sinhalese but a mixture of aborigine, Tamil and jungle Sinhalese. He was a very ugly and silent little man, skinny with a pot-belly, and one of J.O'k. Murty's old coats was much more than an overcoat for the diminutive and inscrutable Baro. Baro was very near to nature and had amazing instincts, which made him an uncommonly good tracker. In fact, picking over my memory of trackers from the Himalayan Snows to Comorin and Puneryn to Yala I think Baro was near the top with one or two Central Indian Bhils, one Northern Province Wanni Tamil and one Hambantota Malay. Poor little Baro was very smelly, with a fly-trap mouth into which enormous quantities of Kumbuk and other jungle bark used to disappear, but he was deadly sombre and seldom spoke though he was very vivacious and communicative, with signs, when " things " were heppening. Those watchers always patrolled singly but we lost one or two and I ordered double patrols after Baro was missing.

I might digress to say we used to lose single Forest Guard patrols in the plumbago areas of Hinidum Pattu and Morawak Korale : we knew their bones were below in some disused pit but we only once found the right pit. Baro —I think he was " Baronis " on the pay sheet— nearly always went alone and would occasionally be away for days. He used to go along the boundary of the Sanctuary, conterminous with Uva, from Talgasmankada to the Kumbukan Aru and then down to Kumana, where his friend, Rampandia, was one of the two watchers; Rampandia was another hotchpotch but about 75 per cent. Tamil and full of guile. Baro would sometimes go on to Lenama and Panama about buffaloes, in which he and Rampandia were much interested jointly. Well, Baro was missing and nobody worried much, but when a fortnight or so had passed word was sent round and a search began. In that search one Yala Sinhalese watcher was killed by a leopardess with cubs about half-way between Yala and Kumana. This particular man was reputed to have the most wonderful mantrams but this time the infuriated leopardess dashed them aside with their unfortunate possessor. Well, nearly a year passed and a watcher going casually along the Uva boundary, which had become much overgrown, thought he would collect some ranawara bark and look for shed horns. In the process, where the bushes ended and the tree-forest began, he saw a human skull and, not far away, Baro's betel-cutter was lying among the bushes.

Woolf is not right about the axe being a particularly heavy one as Baro was not strong and his axe was the ordinary axe which jungle villagers carry, largely for protection against bears, as the villager and the bear meet at the game of robbing bees' hives. However, the axe with the broken handle was there. Then there were bits of a pocket-book including the cardboard covers and this was at first a puzzle as Baro could not read nor write but it turned out that it was a book that Rampandia had given him containing buffalo accounts for scrutiny by some pundit at Tissamaharama. Rampandia was literate and used to sign in Tamil on the pay-book.

My friend Woolf was no jungle man and didn't like his Civil Service job but one couldn't have found a more human, conscientious and devoted Government Servant. His leaning was to journalism, as was poor George Forrest's and to journalism Woolf went, undoubtedly—with success. I believe he is still going strong I hope so.

The way I picked up my information was that I was the Forest Officer in charge of the whole area and very shortly after the discovery of Baro's remains I undertook the re-demarcation and survey of that boundary and all the witnesses were in my party and I was particularly interested in poor, little Baro. The unanimous verdict of my party was "Hora Aliya" and some of them described him and, apart from being "Kabara" he was a "Hawaria" (full tail with nice feathers!) They always say "hawaria" or "kota" in describing a rogue.

The Charms of Bird Watching

By PHILIP K. CROWE

LIKE most one-track sportsmen, I thought of "birds" only as game birds, and my interest in this small category was limited largely to a study of the ways and means of shooting them. I could recognize virtually every edible species in Ceylon but knew nothing of the great world of non-sporting birds that inhabit this ornithologist's paradise. Three hundred and eighty-six different birds either live permanently on the Island or migrate from the mainland of Asia and of this total, the quail, partridge, snipe, woodcock and jungle fowl make up but a minute fraction.

My introduction to the sport of bird-watching —and I found it requires far more skill to locate the nest of a Kentish Plover than it does to flush and shoot its cousin the Golden Plover—took place in early June at the hamlet of Arugam Bay down on the south-east coast of the Island. My teachers, Eric Wickramanayake, Minister of Justice of the Dominion Government, and Major W. W. A. Phillips, a planter of many years' residence in Ceylon and author of numerous books both on birds and mammals, were patient men and during the three days we spent in the area not only showed me more than a hundred interesting birds but taught me something of their bird-watching techniques.

The first lesson revealed how really ignorant I was. Near the Arugam Bay resthouse, which is situated on a sandy bluff only fifty yards from the sea, there are some coconut palms and on the frond of one of these was perched what I took to be a Crow, the commonest bird in Ceylon. But I was wrong. This black and slightly longer version was a Koel, a member of the cuckoo family. The lives of these birds however, do depend on the Crows. The male Koel annoys the female Crow until the latter leaves her nest in exasperation. The female Koel then slips into the Crow's vacant home and proceeds to lay her eggs. Immediately after this, she departs and Madame Crow, never realizing that her clutch has been increased by a single Koel egg, rears the little stranger with the same love and affection that she gives her own brood.

Another bird easily spotted from the resthouse was a Ceylon Sparrow, which I was impressed to hear was named by my friend Dillon Ripley while he was stationed on the Island with OSS during the late war. Apparently a duplicate of the Indian Sparrow, the Ceylon Sparrow has certain differences that were previously overlooked. Bill Phillips told me that Dillon also named the Ceylon Long-tailed Nightjar, the Ceylon Yellow-browed Bulbul and the Ceylon Brown-capped Babler. So keen an ornithologist was Dillon—he is now professor of that science at Yale—that he was reported, undoubtedly erroneously, to have mixed his papers and sent in a long dispatch on the aforesaid Bulbul to intelligence headquarters in Washington who, of course, regarded it as a fine piece of code work.

We had arrived in the heat of the day and, after a long swim in the creamy combers of the

Bay of Bengal, had a curry lunch and a nap before sallying forth on our quest. We did take a gun but it was a .410 collector's gun. Most important item of a bird-watcher's equipment are binoculars and all of us were armed with our favourite glasses. We also had the advantage of Bill's Land Rover which was capable of rolling across the treacherous semi-swamps of the lagoon country and negotiating the even more hazardous sands of the dune country.

The best areas to study birds were the Kalapus, great lagoon-like stretches of flat semi-swamp land originally formed by indentations of the sea but at that time of year blocked from salt water by sand dunes. Fed by the rains, the water in them was still brackish but not too much so for the birds and the water buffaloes who shared them. The first such lagoon we visited was Paladi Kalapu, a distance of some ten miles from the resthouse. Driving down on to the swamp, Bill stopped the Land Rover and we began to scan the ground through our glasses. Focussing on a strip of open sand, I noticed a little grey bird with a white throat apparently sitting on the ground. Bill told me, however, that it was sitting on its nest and sure enough we found three stone-coloured eggs with black blotches in a shallow depression of the sand. In the meantime the mother Pratincole, for such the bird was, kept circling around us and uttering high-pitched calls of distress. The Pratincoles are a resident Ceylon bird and are not reported to leave the island.

A little way beyond the Pratincole's nest I saw a tiny brownish grey bird with a black belly hopping along the ground in a pathetic attempt to make us believe that he had a broken wing. The brave little actor was a Black-bellied Finch Lark and his nest was a beautifully lined little hollow beneath a clump of grass. There were two mottled rock-coloured eggs.

Note.—Only the male Black-bellied Finch Lark has the black belly.

Near the water were some tall reeds and hanging to some of them were shoe-shaped nests cleverly constructed of intricately woven slivers of reed. These were the homes of the Striated Weaver Birds. The entrance is at the foot of the nest and it was wonderful to see the little brown birds come zooming up, and without checking their speed, dive up into their nests. I found an old nest and discovered that there is a cup shaped sac inside in which the birds live. Tales that weaver birds imprison fireflies in their nests so that they have a light to enter by may be fanciful, but a bird smart enough to make as fine a hanging palace as a weaver might easily be tempted to light it up.

Near the nests of the Striated Weavers were similar nests hanging to trees. These were also beautifully woven of reeds but were shaped like a bowling pin, and were the work of the Baya Weaver Bird. A lighter coloured bird with more pronounced yellow head, the Baya is easy to differentiate from his cousin. Both male weavers attract their mates by singing lustily while they are building their wonderful nests and the females, like others of their sex, are mightily charmed by such substantial dwellings.

There was a dead tree near the bank of the Kalupa and high on its gaunt branches we spotted a Crested Serpent Eagle, the great bird whose main diet is snakes. Several times while hunting snipe, I have seen these eagles swoop and come up with a wriggling snake in their talons.

Soon after this Bill spotted a White-shafted Little Tern and knew from the way it hopped along the ground that we were near its nest and that it hoped to draw us away. After hard looking, we found a shallow depression in the land with three dull stone-coloured eggs. Further out on the line where the rippling water of the swamp lapped the bank, we saw a colony of Whiskered Terns, migrants from India, who return to the subcontinent to breed. These, however, were young birds not mature enough to breed and accordingly with no strong desire to fly north.

It was a crystal clear afternoon with high white fleecy clouds which set off the various colours of the birds to perfection. Particularly stunning

against this background were the emerald green Common and Chestnut-headed Bee-eaters. Far out on the water floated a pinkish-white Pelican and near him stalked a family of graceful Egrets. Protected in Ceylon as they are in America, the four different types of Egrets on the Island are plentiful. Over a bit of open water a sapphire blue White-breasted Kingfisher folded its wings and dove like a dive bomber toward its fish prey. A moment later it rose with an inch long silver minnow in its bill.

The bravery of these little birds was heartening to see. Most of them, as I have reported, lay their eggs on open ground over which droves of water buffalo are constantly grazing. To prevent these vast quadrupeds from crushing their eggs, the mother birds have been known to fly up straight in their faces. We saw several buffaloes lying within a few feet of a nest with the mother still sitting defiantly on her eggs. We scared the buffaloes away and the little Kentish Plover only left her nest when we were almost on top of her. Then, instead of flying, she dragged her wing along the ground in the best imitation of a wounded bird that we had the pleasure of witnessing.

Toward evening we drove to Rota Wewa, one of the ancient tanks which had been restored and was being used to irrigate a vast stretch of paddy land. The middle of the thousand acre tank was covered with white Lotus flowers and the stretches of open water reflected the copper and gold of the sunset. A Painted Stork rose majestically from the lotus beds and flapped gravely away, while a Grey-headed Fishing Eagle eyed us from a nearby tree and followed suit. Flocks of Whistling and Cotton Teal floated by as did an Indian Darter, looking like a snake with his long slender neck and partly submerged body.

Another tank which we visited was Lahugalla, a lovely sheet of water in the heart of the jungle. The Circuit bungalow keeper reported that a herd of elephant came there nightly and only a few weeks before our arrival a leopard had snatched his only dog. Walking along the bund, which was studded with sharp stones to discourage the elephants from promenading, we, or rather Bill, spotted a Black Bittern, a relatively rare bird. In the same tree I saw a flash of butter yellow and was told it was a Black-headed Oriole, garbed in his flaming red mating bill. Out over the water a Ceylon Kingfisher darted by with a flash of blue-green and chestnut, while further down the tank, where a field of pink Lotus lay, we saw a flock of Jacanas, the graceful water-pheasants, who, by virtue of their long-toed feet, can run over the water lily leaves like the airiest of dancers. Further out in the open water a single Little Grebe, smallest of the Ceylon water birds, sought its dinner by frequent dives. Known also as the Dabchick, the Little Grebe resembles a tiny duck but seldom quite succeeds in rising clear of the water when it flies.

Near the Circuit Bungalow, we saw a Racquet-tailed Drongo, a brace of Ash Doves, a Bronze-wing Pigeon (bound, as all pigeons always seem to be, on important and immediate business) and a Black-headed Munia. About this time Bill heard a Tickells Flower-pecker, the smallest bird in Ceylon. For a long time we could not locate it but knew it was in a tree just over us by its curious cry. Then it suddenly flew off and I saw a bee-like streak as it went. The tiny Sun-bird, which we spotted soon afterwards, was more accommodating and I had a chance to focus my glasses on its purple and gold plumage. We saw two of the Heron family, the Pond Heron and the Purple Heron.

In the early hours of the morning we drove to Komari Kalupa, a huge lagoon some fifteen miles from the resthouse. Dotted with great outcroppings of Gneiss, which looked like stranded whales, the swamp was the home of numerous Cotton Teal. These were engaged in their prenuptial flights and the drakes were chasing the ducks. We saw six males hot on the tail feathers of a fleeing female. Eric discovered a Painted Snipe hiding in a gully. A female in full breeding plumage, she was obviously resting from her flirtations. Her morals are question-

able. She lays a clutch of eggs, puts her poor husband on them to hatch and bring up the family and runs off to find herself a new mate. This goes on till she gets tired of laying and running. Needless to say the husbands are dull and unattractive little birds.

Drama is never absent from the world of birds. A great White-bellied Sea Eagle attempted to swoop on some young Stilts and immediately a flock of adult Stilts rose to defend their young. Since the Stilt is only a fraction the size of the eagle and has no possible means of hurting it, their attack was the epitome of courage. Diving around the eagle from all sides they so annoyed it that it finally flew off in disgust.

Soon after this Bill saw what he thought might be a red breasted Caspian Plover, one of the rarest wanderers to the Island. Only once before—in 1950—was one collected in Ceylon. Stalking it quietly, Bill fired and missed, but luckily the bird did not fly far and on the second try he bagged it nicely. On closer inspection he said there was doubt as to whether it was a Sand Plover in breeding plumage or the elusive Caspian traveller.

On one of the outcroppings we spotted an Adjutant Stork, a relatively rare member of the stork family. And then, as the sun fell behind the outline of a mountain called Westminster Abbey, we heard the raucous scream of the Pied Hornbill, a bird that might easily have emerged from a Walt Disney film. A great grotesque caricature of a bird with a massive bill a foot long and possibly six inches deep, the Hornbill is protected but is still shot and eaten by the locals. Unlike the male Painted Snipe, who has nothing to say about his mate's behaviour, the male Hornbill incarcerates his wife in a hole in a tree. After she enters, the opening is progressively closed until it is merely a slit through which he faithfully feeds her. Inside she incubates her eggs, moults her tail and flight feathers, and grows a new set.

On a big tree near the water we saw a Rufus Woodpecker, the daring bird that builds its nest in a hive of black tree-ants. It is said, moreover, that even though these woodpeckers are fond of black ants, they never feed from the ants in whose papiermache home they have laid their eggs.

While birds may or may not recognize eggs, they certainly know their own nests so we were mystified when we found a Red-wattled Lapwing sitting contentedly on a clutch of Kentish Plover eggs. An hour later we returned to this nest and found the little Kentish Plover mother back on the job. Undoubtedly the Lapwing was a paid egg sitter. Another bird we saw, who was not where it should have been, was a Blue-tailed Bee-eater : a migrant from India who should have left Ceylon for the North by the end of April at the latest and here it was on the 4th of June.

We had a hard time finding the Green Bee-eater's nest but Bill finally located one on the side of the tank embankment. Instead of the conventional nest which I expected to find, I was shown a hole in the ground and told that the little couple burrow it out with their claws and beaks ; a mining operation of skill, since they must dig deep enough so that pressure from the outside will not crush their shaft. While one works the other stands guard.

Bill Phillips had received a letter from Professor Novick of Harvard asking him about Ceylon bats. The Professor said he was interested in the echo lŏcation apparatus of bats and intended to travel widely in the Far East to study this. Accordingly Bill shot a Pouch-bearing Sheath-tailed Bat so that he could show the Professor one of the various types of Ceylon bats.

After a good dinner, while we sat on the porch in the moonlight and watched the combers thunder in on the beach, I asked my learned friends about the Devil Bird. Both said they had never heard it but Bill identified as Eagle Owls several specimens which were sent to him as Devil Birds, and which had been heard to have made a terrible cry a few seconds before they were shot. The cry of this bird is said to be so blood-curdling that the Ceylon villagers believe that it is the spirit of a woman who

committed a terrible crime. She is said to have killed her son, cooked him, and then served him to her husband. There are two schools of opinion on the Devil Bird. Dr. R. L. Spittel, the well known naturalist, thinks that it is either a Hawk Eagle or a Honey Buzzard. The only solution to the mystery is, of course, for both parties to listen collectively to all these birds and then decide to which one the awful title of Devil Bird should be bestowed.*

From the Devil Bird to Vampire bats was a natural digression. There are only two species of Vampire bats in Ceylon—the Ceylon Vampire and the Indian Vampire. Both of these species belong to the Oriental Vampire family which are not true vampires in that they do not normally suck the blood of their victim like the famous vampires of South and Central America. However, two friends of Bill's spent the night in Demilaya Galge cave some years ago and one of them woke in the morning to find himself covered with blood oozing from a number of little wounds. The trackers then told him that he had been bitten by bats. Furthermore, in Kalutara district, the local villagers state that sometimes the Vampires or " Kotican " occasionally nip them while asleep. These tales are particularly interesting in that normal food of these bats are wall-lizards, small birds and other little vertebrates.

I learned that in addition to the 240 resident species and sub-species of Ceylon birds there are some 146 more birds that visit the Island regularly or occasionally. Most of these visitors are winter migrants which remain from October to April. Unfortunately no bird banding is done by either the Indian or Ceylonese wild life authorities so that it is hard to tell the home base of many of these travellers. The Russians, however, do a lot of bird banding, particularly of game birds such as ducks and geese, and since no red banded birds have been found in Ceylon it is logical to assume that few find their way down here from the Caspian area.

While there are undoubtedly quite a lot of amateur bird watchers in Ceylon, the roll of experts is limited—so much so in fact that the Ceylon Bird Club includes only a dozen members. According to Bill, however, the main reason for the small membership is purely manual ; only six carbons can be run off one original and since the Club has no secretary no one wants the job of typing more than two initial sets of the members' bird notes !

I was lucky in my tutors. Eric Wikramanayake and Bill Phillips are certainly the most knowledgeable bird-watchers in Ceylon. Ever since he was a boy at Hambantota, Eric has been keen about birds and carried on his hobby through his years of study at London University and the London School of Economics. Back in Ceylon, he became a lawyer and two years ago was invited to become Minister of Justice in the present government. He is a member of the Bombay Natural History Society and is President of the Ceylon Wild Life Protection Society. A quiet man of fifty-five Eric is a good companion and never scares the birds by idle chatter.

Many outdoor men believe that Bill Phillips has done more for wild life in Ceylon than anyone else. He pioneered protection and had a great deal to do with setting up the national reserves. Now over sixty, he has spent most of his

---

* *Note by R. L. S.*—" For both parties to listen collectively to all the birds and then decide "—is easier said than done ! Let me make my position quite clear once and for all. I fully agree with my good friend Bill Phillips that the Forest Eagle-owl is definitely a Devil Bird. But I do say that the Hawk-Eagles (Ceylon and Legge's)—and probably the Honey Buzzard, kindred to them—are also Devil Birds, as known to the low-country jungle folk ; their characteristic note being the " hoo " cry of legend which refers to a central crest and not to bilateral ear tufts of owls such as the Eagle-owl. Finally, I am no naturalist, as Mr. W. W. A. Phillips is; but I have often heard the ' hoo ' cry of the Devil Bird (not fish eagles, please !) and had it indicated to me during day by knowledgeable jungle Sinhalese and Veddas. To support this claim, I would again refer the reader to pages 90-95 of *Loris*, Vol. VI, No. 3.

life in the island and I would bet that all of his leisure has been devoted to his studies of birds and mammals, the result of which have been widely published in England and Ceylon. Educated at St. Peter's School in York, Bill came to Ceylon soon afterwards and except for service in both world wars has remained here ever since. During the first World War Captain Phillips was captured by the Turks and held prisoner for two and a half years. In the second Major Phillips served in British intelligence in India and Ceylon. A tea planter, he lives in a charming house in the mountains of Uva from which he has one of the most spectacular views in Ceylon. Next year, he is due to retire and if he does decide to leave Ceylon it will be a sad day for his many friends and admirers as well as the island's wild life.

THE CHANGING FACE OF KALAMATIYA

By L. KRISNARATNE

KALAMATIYA needs no introduction to the sportsman. I am sure that at one time or another every nature lover in Ceylon has visited this place, and if there are any who are ignorant of its existence, they have really missed one of the loveliest things in nature.

Even as late as the end of the nineteen forties, Kalamatiya retained its virgin beauty to a great extent. It was a place where the weary eyes of the city dweller found blissful rest on its waters that teemed with innumerable varieties of both migratory and indigenous avifauna. The whole was a vista of a sweet and melodious performance on a natural stadium, with its profusion of life. I know of an amateur artist who cherishes with pride among his collection a painting of a flotilla of ducks playing their jolly jaunts among the bulrushes in some remote corner of the lagoon. Needless to speak of the many other treasured memories, those who visited the place would have in mind.

I remember in 1947 or so, during a visit, some of us used to sit upon a rock on the water's edge, and spend a good part of the day gazing for long hours into the clear rose-hued water, where almost every kind of aquatic bird took refuge, singing their sweet songs of peace and harmony. They thought it still a sanctuary undisturbed by man. We did not require binoculars, for the beautiful things lived their full lives not a stone's throw from our rocky ambush. Above all the glamour of the bird's entertainment to the visitors, was the fine musical interlude : the different tunes played by each bird, like a highly organized orchestra, breaking the silence of the wilderness both by night and day. The richness of its beauty simply stole one's heart away. It is only through fear of being called a fanciful writer that I refrain from attempting to make a guess at the number of wild ducks that would have clothed Kalamatiya Kalapuwa in those grand days. Suffice it to say that during the season even ducks were regarded a tiresome dish. Those were sights to behold, memories hard to forget.

But alas ! Kalamatiya is fast becoming a thing of the past. It can no more withstand the onslaught of civilisation. Gone are those days when the birds went about their business, paying no heed to the rare human intruders who watched their antics from an armchair position. Then it was a sanctuary, but since the day when it became undeclared, ruthless sportsmen converted it into a slaughter house, bringing death and destruction to even the most harmless and inedible creatures. Kalamatiya changed into a miniature battle field. Bang ! Bang ! the artillery sounds both in and out of season. Dawn or dusk matters not in this place, for game is sought every hour. It has become a training school for poachers, and the devils are abroad every hour of the night. The lagoon's vicinity

used to be fine game country, but today even if one were to track through the scrub land for full twenty-four hours, the trace of a deer or the wild and spirited call of a jungle fowl is hard to find. If there be any, they are easily the last remnants of their vanishing race. A common sight in the market is the carcasses of hare labelled Rs. 2 and off they go like hot cakes.

I do not think that ducks chiefly, and even some other water-birds, will be pleased to visit Ceylon as migrants in another decade or so, as they will not find sufficient repose away from the bustle of human life. Of course there are the sanctuaries, but who knows whether they will last for all time? A stroke of a ministerial pen is enough to convert them into pasture land for voter's cattle! Even so, a sanctuary serves no purpose in the heart of a town. Jungle clearings for cultivation, colonisation projects,etc., reach up to the brink of the water. When all the trees are felled, and buildings and plantations come up, it becomes thoroughly unsuitable for wild life which requires absolute peace and quiet. The one thing that should be done both to preserve the beauty of such places and also to make them still habitable for birds, is to allow a "Green Belt" all round at least in a few select places. (Earlier suggestion by Mr. H. M. D. Soysa). This does not happen at Kalamatiya, or at other tanks and lagoons in the Dry Zone and elsewhere. A mere stretch of water without its background of natural vegetation is no attraction at all. It is therefore the duty of us in this present generation when the conquest of nature by man here in our land seems to have no end, to try and preserve at least a few places for posterity where life is so blissfully isolated from the tensions of the world.

Every foreign visitor to our Island has never grudged to acknowledge that our's is one of the loveliest lands of the world. But I am afraid that, in the near future judging from the present trend of things, Sri Lanka will have her reputation not so much as a place where nature has so lavished her wonderful charms, but as a nation of vandals, destroying its natural beauty.

BIRD MIGRANTS

IT would be interesting to know if the following migrants have arrived in Colombo so early before? (Perhaps the Common Sandpiper can be excepted).

(1) Common Sandpiper, Beira Lake, Aug. 18 (probably had been there some days before my visit); (2) Golden Plover, Sept. 10—Racecourse; (3) Blue-tailed Bee Eater, Oct. 8—Racecourse.

SIR SIDNEY P. SHELLEY.

I SAW a trio of Sandpipers and a lone Yellow Wagtail on the banks of the Maskeliya Oya on September 4th.

Could anyone, please, let me know if they were the "first"-for-the-season" or not?

Times E. A. G. THOMAS.

IN reply to E. A. G. Thomas's letter *re* "Early Birds" a number of Wood Sandpipers were observed by my friends and I at Maho in the N.W.P. on August 20th.

In addition to this a number of Golden Plovers were seen recently on the S.S.C. cricket pitch at Independence Square, the cock birds being still in their breeding plumage.

Times R. H. WILLS.

ON November 21st I had a close up view of a Brahminy mynah in the Colombo Club compound. Only once previously have I seen this bird in Colombo and that was on November 2nd, 1950, at a bungalow in Clifford Road.

SIR SIDNEY P. SHELLEY.

In Search of the Jungle

By T. A. MUDIAPPA

AT about 8 p.m. on Friday, 9th September, 1955, I found myself at the bungalow of Mr. S. V. O. Somanader at Batticaloa. I had read many an article written by this keen forester on the wild life of the Island and had often wished to be able to explore the forests in his company. And so, I posed the question whether he would kindly conduct me on a tour of exploration into the jungle. My judgment was not at fault. Although he was not in fine fettle, the call of the wild, especially at vacation time, was too strong to be resisted. Accordingly, he decided to oblige me on the morrow. On Saturday morning, therefore, along with him and another friend, we took the road for Maha Oya.

We left civilization behind us at Chenkaladi. As our car sped along the ribbon-like road that meandered through the jungle, we were greeted by a vanguard of the feathered tribe perched on

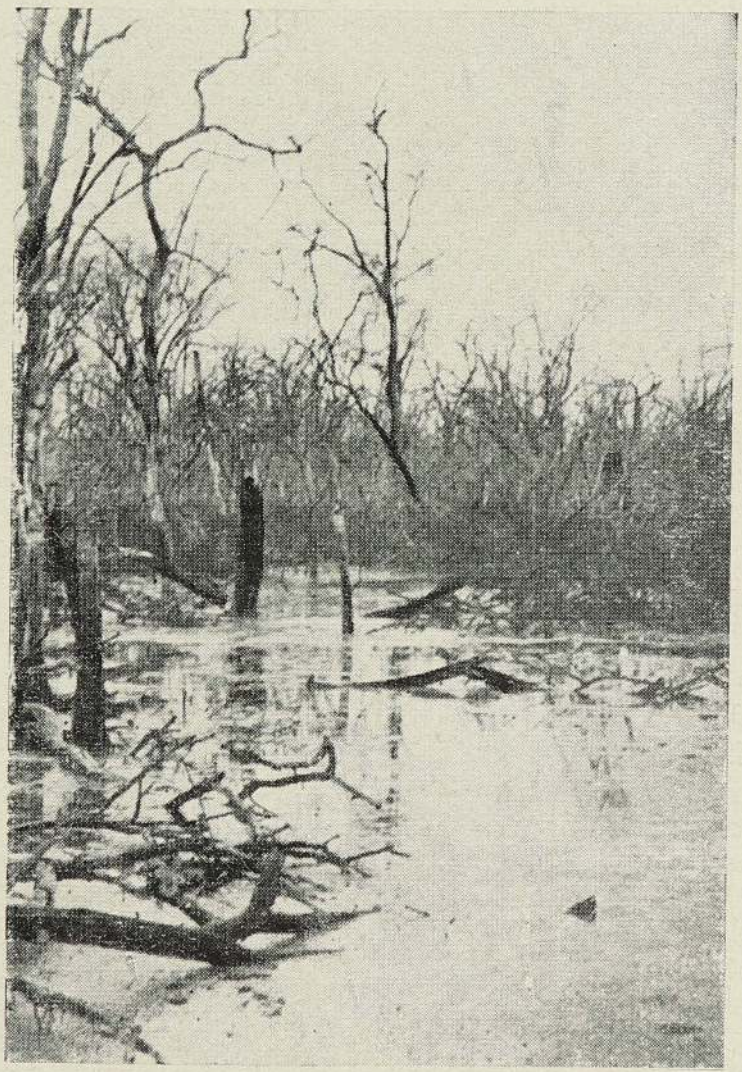


Photo by S. V. O. S.

The Karadiyan Aar Tank, showing the leafless trees standing in the water, where cormorants and other aquatic birds secure fish for food.

the telegraph wires at various places. Of these birds there were some that we were unable to recognise owing to the speed at which the car travelled. We, however, discerned the Green Bee-eater frequently. Other birds that we managed to recognise in the condition in which we were situated, were the Red-vented Bulbul, the Magpie Robin, the Drongo, the White-breasted and Stork-billed Kingfishers.

Our first visit was to the Karadiyan Aar Tank. On the way to this tank, we alighted from the car and stepped into the jungle. The hum of the car's engine was now succeeded by a variety of bird-calls that emanated from the veiled shadows of the forest. A practical lesson in Nature Study commenced. Mr. Somanader pointed out to me a certain thorn tree, the fruits of which are used by coast Veddahs to poison fish. Suspended between the branches of this tree was the web of the Erisidae, a species of tree-spider. The gossamer woven by this spider has a special fascination for Loten's Sunbird. This bird, after making an opening into the flocculent masses of cobweb, introduces vegetable down into these meshes and adding a "porch" to shelter it from sun and rain, converts the web into a habitation for itself. There is a suspicion that it feeds its young on the Erisidae in addition to the nectar and pollen obtained from flowers.

Illuk grass grew rank on the ground. On another tree we saw a globular nest with an opening on the side. Lowering the branches of this tree, we peered into the nest but found it empty. It looked like a Munia's domicil and the processes of nidification were apparently not completed yet. As we approached the tank, we stopped to examine a Sterculia tree. This was a tall tree with a thick trunk. High up on the trunk were two neatly rounded holes about a foot apart from each other. These, my mentor informed me, were the nest holes pecked out by the Woodpecker.

In a few minutes Karadiyan Aar Tank burst into view. This was not a large tank. It has been built simply by throwing a bund across the lower end of the tank to impound the water for irrigation. Owing to the drought there was not much water in the tank, and the huge trees standing in the tank were bleached and denuded of foliage. These obviously were the preliminary symptoms of decadence. On going up to the water's edge, we disturbed a flock of Red-wattled Lapwings which rose excitedly into the air with their cries of "Did-you-do-it?" and dispersed in different directions. These birds lay their eggs on the ground without troubling to make a nest, but though we searched the ground closely, we failed to find any eggs. Other eggs that were plentiful in this tank were the cormorants and egrets.

After lingering awhile here, we resumed our journey. Our next halt was at "Rajah's Ranch." This is the demesne of a hardy, up-country resident of Batticaloa, who with the faith and courage of a Sir Samuel Baker, is conducting an agricultural experiment in the jungle. A few acres of land have been brought under cultivation and livestock is also being raised, a relative and a few servants assisting in the enterprise. Seeing a few Guinea-fowl at the cabin of these backwoodsmen, I was curious to know whether they obtained any eggs from these birds. I was informed that locating the place where these birds laid their eggs was a problem until a few days ago when a cache of about 25 eggs was discovered accidentally under a bush in a forest glade.

We reached the resthouse at Maha Oya shortly after noon. Having given orders to the resthouse-keeper regarding our luncheon, we strolled down to the bund of the tank nearby. The effects of the drought were visible here, too. The water was at a very low level. A tree which grew on the shore extended its branches over the water. We were able to count eight Cormorants perched on these branches and basking in the sunshine. There were also a Pond Heron and a beautiful Grey-headed Fishing Eagle. Surmounting respectively the tips of two stakes that sprouted up from the tank were two Snake-darters with

their wings half extended in a characteristic pose. On using a pair of field-glasses, we descried a few buffaloes straggling on the further side of the tank. On the heads of some of these animals, Pond Herons were perched picking the pestilent ticks from the animals' ears. This service, as was explained to me, was not done gratis. In return the buffaloes, when feeding on land, flushed up the grass and in so doing, drove out the grasshoppers and other lurking insects, which are pounced upon and eaten by the Pond Herons. This system of mutual assistance is known as "Commensalism." Beyond the buffaloes on the opposite shore of the tank, a gigantic creeper entwining around a tall tree attracted our attention. In its struggle to reach the sunlight, it had smothered its host and it stood there silhouetted against the landscape like some formidable ghost.

After about an hour on the bund, we retraced our footsteps to the resthouse. A deep silence punctuated only by the incessant shrieks of countless cicadas and the strident calls of a Green Barbet, reigned in the neighbourhood. When we were near the resthouse, we were startled of a sudden by a snake which glided across our path. The reptile was long and thin like a piece of knotting rope. After passing us it paused and, lifting its head, looked at us inquiringly. Mr. Somanader went closer, and after subjecting it to a close scrutiny, announced that it was a Chequered Keel-back, which was non-poisonous.

Noticing a flash of gold darting in and out of the foliage in the hedge around the grounds of the resthouse, I stopped to ascertain what occasioned this phenomenon. I soon found out that the gold was the rich-yellow lower plumage of a bird, but the bird itself continued to elude me. At length it showed itself clinging to a twig head downwards. Its upper plumage was of dark greenish-black and we had no difficulty in recognising it as the Ceylon Iora.

Back at the resthouse we had a sumptuous repast and then fell into conversation with two German engineers who had just arrived. They were motor-cycling to Haputale. One of them was frank and communicative. The other was taciturn and reserved. The sociable individual warmed up when we broached the subject of Ceylon's wild life. He told us that one of his hobbies was making colour photographs and that he hoped to make some pictures of forest scenery on his present trip.

Shortly afterwards we commenced our return journey. Our programme for the afternoon was a visit to the Periyapullumalai Tank and thereafter another visit either to Unichchai or Rugam Tank. Off Periyapullumalai Tank we got out of the car and began our investigations. On the way to the bund we observed the much-reviled Lantana growing luxuriantly. The spectacle that awaited us when we had climbed on to the bund was magnificent. Spread out before us was a sheet of water about a quarter mile in length and about 300 yards broad surrounded by tall trees. Among these trees were the Kumbuk revealing the large respiratory roots which they had specially developed to breathe during flood time. A part of the tank surface was carpeted with the leaves of the water-lily and here and there some of its flowers were in bloom. Gaudy coloured dragon-flies skimmed across the water. We seated ourselves on the turf to take in our fill of the grandeur of this spectacle. During our stay there we saw Bee-eaters hawking insects on the wing, Snake-darters nestling on the topmost branches of the tall trees that dotted the margin of the tank, large Egrets with their snowy plumage, Pied Kingfishers, White-breasted Kingfishers, Mynahs, Pond Herons and many Spotted doves which flew across up and down. Later, while sauntering along the bund, we picked up the cast-off slough of a cobra. A plaintive cry, which rent the air from time to time in the distance across the water, made us scan the opposite end of the tank with the field-glasses. We perceived a herd of buffaloes being forded across, a small portion of the heads and bodies only of these creatures being noticeable above the water. The wailing notes were the cries

uttered by the herdsmen to direct the beasts.

As we did not have much time to spare, we elected to proceed to Rugam tank. While proceeding I could not help admiring the splendid Rain trees (" Ingasaman ") that grew along the roadside. These trees threw out their long gnarled branches over the roadway and made an admirable canopy to protect the wayfarer from rain and from the scorching rays of the sun. It must have been a person with vision who had caused such trees to be planted here. Their usefulness would definitely have been greater long, long ago when motor cars were unknown and when the only means of transport was a cart or one's feet. On these trees were seen more than one variety of orchids, Polypodium, Drymoglossum and other epiphytic plants. On the way Mr. Somanader showed me a Nux-Vomica tree on which he had seen seven Hornbills sometime ago when it was in fruit; on these fruits the birds fed.

When we came to Rugam tank the sky was overcast. Snake-darters and other birds, fearing a downpour, were hurrying to seek shelter in time. The effects of the drought were most noticeable here. The bed of the tank was

Photo by S.V.O.S.

Tiny fishes (Tamil—" Pal-Paravai "), caught by Muslim women with " athangoo " in the shallow waters of the fast-drying Rugam Tank (during drought), are being dried on the rocks off the tank-spill.

visible in many places. Some statistics carved on one of the rocks at the entrance to the tank indicated that there had been a major flood here in January, 1913. The water had risen to a height of 22 feet. The fact that inundations occurred here from time to time was evident from the decayed debris which had got caught on the branches of the trees outside the bund. As we walked on the bund, we heard the cries of Hornbills, which rang out clearly from the recesses of the forest. Two Pompadour Green Pigeons were observed in flight, and on a rock in the gully outside the bund we saw a small Ceylon Kingfisher. In the distance a flock of White Egrets was seen at the water's edge. From the concreted bund near the tank-spill, we found a large number of small fishes (called " Pal-Paravai ") spread out on the rocks below to dry. A fisherman near by told us that they were caught with " Athangoos " by the women-folk who, after " treating " them took them to the village market for sale. He also told us that wild elephants haunted the neighbourhood late at night.

On our way back from Rugam tank we saw a pretty sylvan scene. In a clearing of the forest, numerous cattle were being penned up for the night in a circular, hypaethral wooden structure. Earlier, we had seen these same cattle grazing on the clearing. As good pasture and water were available, the animals looked sleek and well-conditioned.

While returning to Batticaloa, Mr. Somanader lamented that the day had been comparatively uneventful. I did not share his opinion for once, and whether I was right or wrong, I shall leave it to my readers to judge. To me at any rate, though I did not see all that he saw in his previous trips, it was full of thrills, well worth going a long way with him to see.

A TANK AT SUNSET

There is no silence.
Thought alone can share
The sunset glow,
The vibrant air.
Comparison drags down to human sifie.
That crocodile, if seen with mundane eyes,
Is but a reptile, or an outlined monochrome,
Whose gliding fails to break
The perfect mirror of the lake.
Yet like the flying fox,
Hanging a withered fruit upon a leafless tree
Or stirred by advent of the night
To slow, deliberate, pterodactyl's flight,
Its image in this modern time
Recalls primaeval, fearful slime.
The ceaseless movements of a myriad birds,
That wheel and circle, settle, rise again,
Make piquant all eternity ;
And all their restless clamour only serves
To underline the calm
The fixed perfection of a lotus bloom,
When seen beneath the changing tints,
The flaring streaks, the fading washes of the sky,
Accentuates the insignificance of man,
And magnifies the immense serenity.

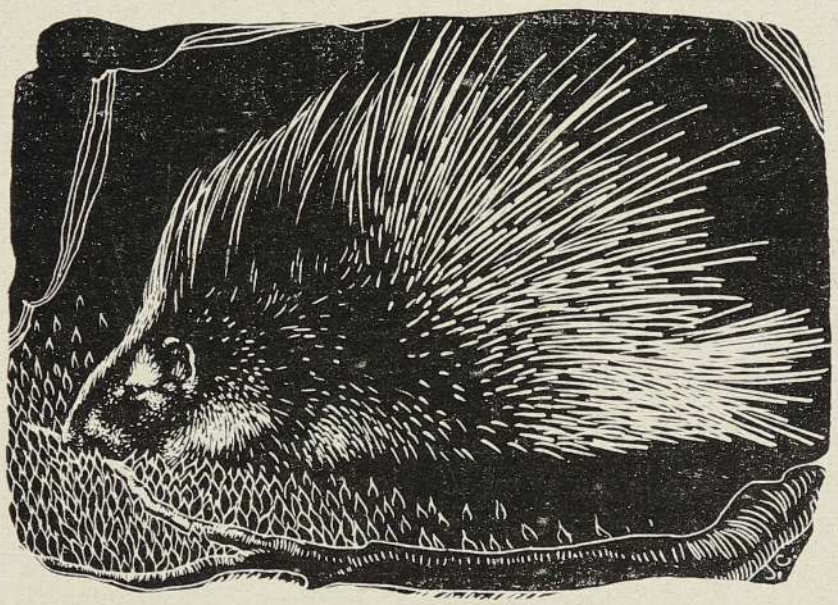
PADDY.

Water-holes

By K. E. W.

FOUR of us went on a trip at the end of July, my husband, myself and another couple. We camped about twenty miles off the main road near a tiny village, where there was a very fine spring, odd milky looking water, but very good. The villagers told us that the last European to visit them had been Harry Storey !

We had very little idea where we were, as the 1-inch map appeared quite haywire. Villages were either not marked or were in completely the opposite direction, rivers ran the wrong side of the track and springs and water-holes were miles from where they were supposed to be ! However, we weren't worrying. We'd got to where we meant to go and there were three water-holes within three miles.



Porcupine

One was a milky spring, beautifully set in the jungle, which seemed to be attended mostly by deer and birds, though we did see buffalo and leopard tracks.

We sat there from 4 p.m. till dusk one evening, just to watch the birds. They were quite fantastic, every conceivable variety and in such numbers, all bathing, drinking and talking. About fifty bronzewings and paddy doves sat around us and on the rocks by the spring drinking, strutting and preening. Flycatchers of every kind splashed into the water in a bewildering kaleidoscope of colour. Azure, verditer and paradise were the most numerous. At one time, we had about a dozen chestnut paradise flycatchers sitting in a bush by our hide. Too much light and shadow for photography unfortunately. Bulbuls, yellow-browed red-vented, white-browed and black-capped. Rufous woodpeckers, kingfishers, drongos and a dozen other varieties. There was so much noise and movement that our eyes and necks were aching trying to watch them all. As we got up to leave at sunset, a red deer barked ten yards away and saw us off as it were, like a good watchdog. What a very large noise it is for such a small animal.

We finished the evening by climbing a ruined dagoba and watching the sunset over the jungle from the top. The old steps and guardstones were there and a large shallow trough-like round stone, with a tiny drip hole in it. Could it be a water clock ? A thousand years or so had made very little impression on them.

Our next water-hole was not such a pleasant spot, but equally fascinating. A vast outcrop of rock with a murky green pool under an overhang and, twenty yards above it, a natural bastion about five feet high, backed by an enormous rock. The cracks in the bastion were filled in with loose boulders, which left us quite a large space like a half moon in which to sit. This was an all night session, so we had a couple of bed rolls, food, water, guns, etc. The trackers were terrified of the numerous bear in that area and left us at the double at 4 p.m. and who could blame them. They were returning about six-thirty a.m. the next morning.

There was a terrific thunderstorm going on twenty miles away and unfortunately we caught the outer edges of it. We looked at each other in dismay, we didn't fancy sitting in wet clothes for fourteen hours and were afraid the animals would not come. However, it was too late to go back, so we prepared to endure and luckily the shower was short. We pushed the bedrolls into a little crevice in the rock behind us to keep them dry and the noise of pushing them in and getting them out sounded excruciatingly loud !

The storm cleared, but left behind a variable wind and a very misty moon, which made seeing difficult. We heard our first visitors coming a long way in the jungle and suddenly three pig loomed up on the rock ten yards away, a boar and two sows. The next arrivals were a couple of bears, they came right in front of us, caught our scent and were off like a flash. We could hear them crashing through the jungle for ages.

After that and for the rest of the night, we were literally pestered by porcupine. There must have been ten or a dozen of them. They weren't the least bit scared, but very inquisitive. They circled all round us, one minute just under us, the next on the rock above us having a look and even sniffing and grunting at the cracks in the rocks. All very disconcerting to a novice like me ! Unless they actually gave their alarm cry and shuddered their quills, they sounded to me just like bear grunting and made my hair stand on end. One chattered a few feet from my head when I was lying down and I was nearly airborne ! However, I must say that when the moon came out and we could see them, they were a magnificent sight, sailing past us like little galleons with all their quills erect.

After 8 p.m. we took watches. Three-quarters of an hour standing at the breastwork and three-quarters of an hour lying down. Two on and two off. I don't think we slept much, but lying back was a great relaxation after the strain of trying to see and hear.

We had another bear scare about 2 a.m. but it was so hard to see that it may well have been the ever present porcupines.

The moon sank about 3 a.m. and we were left with only starlight to see by. Very deceptive, every rock seemed to move if you looked at it long enough. My husband and I were on watch. All was very quiet. I was sitting down and he was leaning on the breastwork looking over to the left. I heard a faint grunt which I thought came from one of the other two sleeping. My husband turned towards me to come and change places, when he heard a scratching noise and to his horror found himself looking into a leopard's face at a range of eighteen inches ! The brute was standing on his hind legs with his forepaws on the protecting wall, he must have seen or heard something which aroused his curiosity. I heard my husband give the sort of strangled shout he makes in his sleep when he is having a nightmare and for a second I saw ears silhouetted against the sky. No room or time to get the rifle up and my husband picked up a large boulder off the breastwork and threw it at the leopard. Boulder and leopard crashed down the rocks and I just got my torch on in time to catch a glimpse of wildly working back legs and tail vanishing round a rock. Going literally like a scalded cat, followed by a flow of lurid remarks from my husband.

We were all shaking like aspens after this

little effort ! It shook us to think that the leopard had got right up under our feet without us hearing or seeing anything. When you are looking out into darkness, you automatically look out, not down. For the last two watches before dawn, we were all doubly alert. Eyes, ears, heads turning in every direction ! Of course the chances of anything coming back after that uproar was very slight, but when one is tired and one's nerves have been at full stretch for hours on end, it is difficult to think rationally.

In spite of the fact that we saw nothing more bar one or two imperturbable porcupine, I know that during my last watch in the dark, I quite firmly stood the whole time with a torch in each hand and my head turning like a teetotum in all directions. After that I fell asleep and when I awoke it was daylight and we all tucked in ravenously to sandwiches and coffee and speculated on the story Mr. Leopard would tell his family when he got home !

A wonderful experience and one I would not have missed for the world. Speaking for myself, I was quite frankly scared stiff all night, but at the same time it has an unholy fascination, and I know I'd do it again in spite of the fright.

We did not shoot anything and we got no photographs, but I think we all reckoned that we had had our money's worth.

Down the Mahaweli Ganga

By T. Y. WRIGHT

I HAVE just been reading an interesting article in the *Loris,* June, 1955, by Philip E. Crowe and being, I think, the only member alive who attended the first and original meeting of the Society at the Bristol Hotel in 1894, it inspires me to write about just the same trip I and a cousin of mine, Capt. H. Kirkpatrick of the then 16th Lancers, made in 1891 or 1892. I have forgotten which of these years. My cousin was stationed in Lucknow, India, then and came to have a little big-game shooting when I owned Mousagalla Estate in Matale East. I made all the arrangements and sent two bullock carts with our " sarman " a few days before we started from Matale to Habarana in Her Majesty's Mail cart, consisting of a longish cart with seats along the sides and drawn by two bulls which were changed every five miles. We had a late lunch at the Dambulla Resthouse and arrived at Habarana in the evening and found that our carts had arrived.

The next morning we started off to Minneriya, the road was only made for about two miles from Habarana and from there on to Polonnaruwa was only a cart track and consequently at every small stream or bad part of the track we had to unload the carts and load them again at the other side and it was evening by the time we arrived at Minneriya. I was so done I fell asleep near the tank bund. We eventually put up for the night in a hut and next morning continued our way past Giritella to Polonnaruwa. We did some shooting from here. As my cousin could not speak Sinhalese or Tamil, the Revenue Officer, I think, Mr. Jayawardene, who was very kind in helping us, obtained a tracker who could speak English and one evening they went to a water-hole about three miles along the road to Minneriya. They were sitting behind a small rock wall overlooking the water-hole when the tracker told my cousin to run; he looked behind him and there was a big she elephant with a calf; he grabbed his rifle and ran to the nearest bit of jungle and the tracker went off in another direction with the ammunition, but of course the rifle was loaded and my cousin fired a shot and the, elephant after

throwing about the rug on which he was sitting and some other things, went off.

Mr. Ievers, the Government Agent at Anuradhapura, refused to give us elephant licences for the N.C. Province as he said too many had been given out ; so we were advised to write to the A.G.A. Trinco for the Eastern Province. Two villagers were sent off and came back very quickly with two licences. We were advised that down the river was a very good place for elephants but how to get there was a bit of a conundrum. The Revenue Officer came to our aid and got two boats for us; they were tied together and some planks tied across them. I believe one of the boats was a ferry boat, used for crossing the river to Manampitiya. The first night we camped on the right bank not far from a village called Mutur, but not the Mutur mentioned by Mr. Crowe near the mouth of the river. During the night a large herd of elephants crossed the river quite close to our camp. We passed the rock shaped like an elephant's head and eventually we arrived at the junction where the river divides into two branches ; we went some way down the right arm and camped. The next day or two we came across one or two elephants but had no luck, so as time was getting short we decided to return to Polonnaruwa. On the way up stream, the trackers told us that on the northern bank of the river there was a very good place for elephants—so we landed and went through a stretch of jungle and after a mile or two came out into a large plain and sure enough there was an elephant a little distance away. It seemed to be coming our way and, as the wind was favourable, my cousin and I and one tracker squatted down and waited for him. My cousin was to have first shot and I was to fire immediately after. The elephant advanced to about 15 or 20 yards from us and I thought my cousin would never fire but he did and the elephant was killed. I fired immediately after but the elephant must have been falling as my shot was just a bit on the left of the hump in his forehead—this was the first elephant I was in at the death of.

On the way back through the jungle we came across a large herd of elephants which were running about all over the place with their ears and tails up, but we stayed " doggo " behind trees and they eventually went off.

When I got back to Mousagalla I received a letter from the Government Agent, Anuradhapura, saying he was fining me for shooting an elephant in the North Central Province after refusing to give us a licence. I wrote to him and told him that I refused to pay a licence fee, as we had licences for the Eastern Province and had purposely gone there, and there were no notices anywhere to say where the N.C.P. and E.P. joined. Anyway he fined the two trackers Rs. 10 each. When later on shooting with Harry Storey I found one of the trackers I remunerated him but never found the other one.

The Manampitiya jungles were famed for large elephants. E. G. Wood of Gallantenne Estate and I shot a very large one not far from Manampitiya. We tried to measure it when it was on the ground by placing a stick at its shoulder and pulling out its foreleg straight ; it came out at 12 feet, but there must have been something wrong as there are no elephants in Ceylon of this size. The circumference of the forefoot, when it was dry, measured 62½ or 63 inches in Kandy making it about 10 ft. 5 inches. This elephant was just a little less than the large one shot by E. L. Walker. I went several shoots with Harry Storey, who incidentally was a distant connection of mine, and was going with him when he was badly mauled by a leopard ; but the Boer War came on just at this time and I went there.

Wishing all good luck to the Society in their endeavours, and congratulations to the Editor on very interesting *Loris*.

Guns and Game

By PHILIP K. CROWE

TO paraphrase Mr. Jorrocks "a red coat doesn't make a fox hunter," and likewise, the possession of fine firearms doesn't produce the trophies, but both refinements contribute greatly to the pleasures of hunting and shooting. The analogy stops there, however, for a pink coat can't save a life and a gun certainly can. A strong case can be made (to oneself, if not to one's wife) that the best rifle or shotgun on the market is not a luxury ; it is life insurance.

Back in 1935, when I was shooting in French Indo-China, I was asked by the authorities at Dalat to attend the funeral of two fellow Americans. They were young army officers from Manila who had taken their leave in Annam and, despite the warnings of almost everyone, insisted on hunting Gaur with .30 army rifles. The Gaur or Sladang is the largest bovine on earth. Standing six feet at the shoulder and weighing nearly a ton, the old bulls are capable of pressing home a charge that send full grown tigers scurrying out of their way. Reconstructed, the tragedy happened this way. The Gaur—a big bull from his slot marks—had backtracked, hidden in the jungle until the two lieutenants and their tracker passed, and then charged them from behind. Both rifles were found to have been fired and the bull may even have been hit but there is no stopping power in small calibre bullets. He caught both men on his horns, tossed them and then stamped them into the ground.

The incident made a profound impression on me for I had just killed a Gaur with my .405 Winchester and was amazed to see how much lead he took before he dropped. I put four shots into his shoulder at fifty yards, but he did not fall dead for another hundred yards. He was not coming at me but if he had been the four 300 grain bullets with a total shock force of more than five tons would not have stopped him. Then and there I decided that even though I could not afford a new best quality rifle, I was going to invest immediately in a second-hand one. I was not able to buy a good second-hand English rifle in Saigon, but I rented a Jeffrey .450 double and even though it has seen many years' service and the lands were worn, it served me well during many months in the jungles of Indo-China.

All the best rifles are not made in England but there is no doubt that the great majority of them are made there. The professional hunters of Africa and Asia invariably buy best quality British rifles and would certainly not pay the tariff if they did not consider such firearms a vital part of their equipment. A few good medium and heavy rifles are produced in America but there is little market for them as there are virtually no animals in North America which cannot be safely handled with small calibres. Jim Bond, the well-known Alaskan hunter, uses a .300 Weatherby Magnum, and Charles Seldon, one of the famous bear hunters of the Territory, killed over 80 Alaskan brown bears with a .256 Mannlicker.

While there are various ways of classifying rifles I believe that the most logical is that delineated by Sir Gerald Burrard in his "Notes on Sporting Rifles." He defines large bore rifles as those with a calibre of not less than .450. Heavy medium bores ; less than .450 but not less than .400. Medium bores : less than .400 but not less than .318. Small bores : calibres less than .318. He classifies magnum medium bore rifles as those which develop a muzzle velocity of 2,500 feet per second or more and magnum small bore rifles as those which also develop 2,500 feet per second or more. He defines a light game rifle as one which develops a muzzle energy of less than 1,500-foot pounds or fires a bullet of less than 50 grains in weight.

In Ceylon, where I have done most of my big game shooting for the past two years, a heavy rifle is not a necessity unless one is after rogue

elephant. My favourite gun for shooting on the Island has been a .318 Westley Richards. Weighing only 7½ pounds and developing a muzzle energy of nearly 3,000-foot pounds with the 180 grain bullet, the .318 is plenty heavy enough for bear and wild boar and not too heavy for sambur or axis deer. I have a four-power lightweight German scope mounted on this rifle which can be rapidly detached if necessary.

I also possess an 8 mm. (.315) Mannlicher-Schonauer which I bought years ago at an auction of the effects of Florenz Zeigfield, the producer of the Follies. The carbine model of 1908, this little rifle has served me well under all kinds of conditions. There is, of course, a great deal of difference in the cost of a Mannlicher and a Westley Richards—the former selling for about a quarter of the price of the latter—and there is no question as to the .318 being the better rifle.

It is only when one is hunting dangerous game that the possession of a best quality heavy rifle becomes really important. John Taylor, the author and white hunter, had a shattering experience when armed with a cheap 10·75 mm. rifle of German origin. He had closed with a large herd of elephant in the long grass of the Angoni Plateau in Portuguese East Africa, and suddenly spotted a magnificent tusker standing broadside 20 feet away. He threw up his rifle and pulled the trigger. The only result was a click. Furiously working his bolt, he pulled the trigger again and got—another click. Subsequent examination showed that the first click had been a miss fire (due to cheap continental ammo) and the second was caused by a break of the magazine spring. Not a nice experience in the midst of a big herd of elephant in long grass.

The incident is not exceptional. Colonel St. Alden, a planting friend of mine in Burma, had the fright of his life when his old 10.75 mm. (.423) Mauser jammed. He had just shot a tiger from a machan, and, having waited for some fifteen minutes and believing the beast quite dead, had climbed down and walked up to the tiger. He was an experienced hunter but forgot to throw a new cartridge into the breech before approaching the big cat. When he was within ten feet of it the tiger bounded up, roared and charged. Wrenching open the bolt he tried to slam a new shell into the chamber, only to have the mechanism jam. The tiger luckily had been hit hard the first time and died in the act of attacking him. Even then the weight of its charge knocked St. Alden over and gave him a severe bruising.

I have shot tiger in both India and Indo-China and am a firm believer in a heavy double barrelled rifle firing a cartridge with an impressive amount of what Taylor, in his good book "Big Game and Big Game Rifles," calls "knock out value." Although Taylor computed these values primarily to apply to solid bullets used against massive-boned animals such as buffalo and elephant, they are just as valid against the big cats. A big male tiger can weigh five hundred pounds and is capable of springing twenty feet through the air. Shock is what is wanted and sufficient shock to stop the tiger—even though momentarily—no matter where you hit him.

Taylor thinks that 50 knock-out values are the very least that a beginner or even the average occasional sportsman should use on dangerous game. No rifle with a bore of less than .425 fits this category. The knock-out value of the Mauser 10.75 mm. (.423), mentioned above, is 46.1; that of my old .405 Winchester only 38.2; and even that of a Jeffrey .400 is under the safety limit with 49.1. With this premise in mind I purchased a Westley Richards ·425 double rifle and have never had cause to regret my decision to buy it.

There are many advantages in the double rifle. All big game hunters know that it is the second shot that counts and with a double you can get off the second blast with a minimum of time and a complete absence of noise. The metallic clamour emanating from the manipulated bolt of even the best oiled magazine rifle is

bound to be heard by the hunted animal and when that animal is a dangerous one noise is a thing to avoid. Another great advantage of the double, especially when hunting dangerous game, is the ease with which one can bring it to bear. Almost all magazine rifles are operated by means of bolt and, as it is difficult to perform this operation while the rifle is being hoisted to the shoulder, time is lost before it can be put into action.

But perhaps the most important advantage of a double over a magazine rifle is its balance. The single barrelled rifle simply does not have the concentration of weight between the hands that a double enjoys. To paraphrase old Jorrocks again "any quad will get you there, but the 'igh metaled 'unter is more fun." You pay for the pleasure ; the double by a good maker sells for two to three times the price of a good magazine rifle.

The novice is apt to think that all the maker has to do to turn out a double rifle is to mount two rifle barrels parallel to each other. This is far from the case. The barrels must be adjusted so that when the right barrel is fired the recoil will not throw the muzzle to the right. The firing of the left barrel tends to throw the muzzle to the left. Accordingly the barrels must be so that their axes slightly converge. The degree of convergence varies with different loads and individual rifles. The net of it is that the only method of producing a perfect shooting double is by trial and error and yet the famous British makers turn out doubles with which a grouping of three inches can be attained at one hundred yards. The infinite patience and skill required to regulate the position of the barrels accounts for an important segment of the high cost of these rifles.

Many of the professional hunters in Africa prefer to have their heavy doubles built without automatic ejectors. They object to the noise inherent in the ejection of the spent shells. Personally I like automatic ejectors and feel that in most situations the noise is more than compensated by the faster loading of the rifle. Professionals also prefer their doubles without automatic safeties, and cite numerous cases where hunters have lost their lives through forgetting to push forward the safety after reloading their rifles. Again I don't agree with them. If one is used to a shotgun, one unconsciously pushes the safety forward before firing and since a double rifle is the spitting image of a shotgun, even to the dual triggers and location of the safety, I see no reason to forget to use it when using the rifle.

A very useful weapon for following up wounded tiger or lion is not a rifle at all but a smooth bore double barrelled gun with just a few inches of rifling toward the end of the tubes. Known as a " Paradox," these guns can fire both shot or ball and are lethal at short ranges. The 12-bore paradox magnum is especially effective against soft skinned dangerous game and weighing only about 8 pounds can also be used as a shotgun for bird shooting.

For shooting in Ceylon, however, the ordinary shotgun is quite sufficient. I have a Parker that my father gave me thirty years ago and which I have used on everything from leopard to snipe. A 12-bore, twenty-eight inch barrel gun without automatic ejectors, it has given me a lifetime of service and shows no signs of weakening. The Parker is one of the few really good shotguns made in America and unfortunately is no longer being produced.

There is one trouble with using a twelve-bore shotgun in the jungle. It makes a devil of a lot of noise. Even my little Fox 20-bore is apt to frighten everything for quite a distance and, if one's purpose in using a scatter gun is only to bag some birds for the pot, the risk of driving away important game is much too great. The solution is a .22 Hornet with a telescopic sight. So accurate are these little rifles that it is quite possible to shoot a peafowl in the head at a hundred yards and yet the report is so inaudible that the bird may not even know you are shooting at it.

I also own a Remington automatic shotgun and a Winchester pump gun which I find useful for duck, especially in the Far East where the bags are apt to be large, but frankly I don't like either gun. Artillery rather than shotguns these heavy multi-shot weapons have nothing but their low costs to recommend them. In America the game laws force the owners of such

shotguns to insert balks so that only three shots can be fired before reloading. Incidentally I was using my Winchester on the night the leopard came to my kill at Bagara. I had loaded the magazine but had forgotten to insert a shell in the chamber. The result was a click and a lost leopard. Such a situation could never have arisen with a double barrelled gun.

Shotguns and even paradoxes are only useful for close shooting and their main function, where big game is concerned, is a subsidiary one. The rifle is the primary arm and the sportsman, like the wife hunter, is always yearning for the perfect "all around rifle." Reams have been written on behalf of a dozen fine rifles which men wise in the ways of the jungles and the plains feel meet this definition. The late Marquis Guidon La Valle, my hunting companion in Indo-China, who had hunted in Africa, India and Indo-China swore by his double 450-400 Purdey. He said it is up to the largest and toughest big game in the world and handles like a shotgun. Other popular candidates are the Rigby .416 magazine rifle, the .404 Jeffery, and my .425 double Westley Richards.

Weight, however, especially in the steaming jungles of Asia, is an important factor in the choice of an all around rifle. Remember you will have to carry your heavy rifle at least part of the time yourself. My .425 weighs 11 pounds and I consider this far too much weight to lug around in the tropics except on the back of an elephant. Purdey's double weighs 10¼ pounds and even the two magazine rifles weighs 9 pounds or more each.

The question is therefore how can one acquire a high degree of killing power in a relatively light rifle. The answer, I believe, is the .375 magnum built by Holland and Holland. The magazine version weighs only 8½ pounds and yet the rifle is designed to take three different weights of bullet, suitable for virtually all types of game. These bullets, moreover, have an extraordinarily high striking velocity, with a consequently devastating effect on the animal hit. Taylor said of this rifle, "the killing power of the .375 magnum is something that can only be properly appreciated by one who has used it on a large variety of game over a long period of time. Excluding head shots, which miss the brain and therefore only stun the animal, I have never known an animal brought down by this rifle to get to its feet again. It seems to have a paralyzing effect."

I only recently purchased a .375 but have shot with them on many occasions and they are without hesitation my choice for the "all around rifle." I might add that Hollands new .375 magnum can be fitted with a vari-power scope, which can be regulated to give the viewer all degrees of magnification between 2½ and 6 power. Loaded with the 235 grain soft nosed bullet it is an excellent rifle for all types of Indian and Ceylon deer, while for Himalayan bear and the common sloth bear of low-country, India and Ceylon the 270 grain bullet is certainly an effective load. The 300 grain bullet is quite big enough for tiger, sladang or even elephant even though its "knock-out" value is only 40.1. The reason for this exception to the rule lies in the rifle's fantastically high striking velocity.

I have quoted the opinions of some well-known hunters in the above but the fact remains that the two most famous hunters of modern times—Colonel Jim Corbett of India and Colonel Patterson of Africa—used very light rifles against the most dangerous animals known to man, namely man-eaters. Jim Corbett, whom I had the honour of meeting twenty years ago in Naini Tal, used a .275 to destroy many of the grim killers listed in his classic tales of the Kumaon hills. He repeatedly faced tigers which had killed and eaten dozens of people, with a rifle whose "knock-out" value is so small that Taylor does not even list it. In any case it is less than 20.

Colonel Patterson waged war against the man-eating lions of Tsavo with a scarcely heavier .303, whose "knock-out" value is given as 19.2, the lowest in Taylor's list.

But unless you are aspiring to the honours and horrors of a Corbett or a Patterson, I strongly advise a heavy rifle for the big cats and the more you pay for it the better it will be.

SPORTING AMMUNITION

By A. H. M. DAVIES

ON the 4th August, 1955, I received a list of Kynoch Centre-fire Metallic Sporting Ammunition currently manufactured by Messrs. Imperial Chemical Industries, Birmingham, and give below a list of Large, Large Medium, Magnum Medium and Medium Bore cartridges that are now being manufactured by the company. It will be noted that a great many calibres are no longer on the production line.

LARGE BORE

.577 .. Flanged. 750 gn. Solid.
.500 .. Rimless. 570 gn. Solid and Soft.
.470 .. Flanged. 500 gn. Solid and Soft.
.450 .. Flanged. 480 gn. Solid and Soft.

LARGE MEDIUM BORE

.423 .. Rimless. 347 gn. Solid and Soft. (10.75mm.).
.405 .. Winchester. Rimless. 300 gn. Soft.
.404 .. Rimless. 400 gn. Solid, Soft and Split.
.401 .. Rimless. 200 gn. Solid and Soft.
.450-400 Flanged. 400 gn. Solid and Soft in 3 ins. and 3¼ ins.

MAGNUM MEDIUM BORE

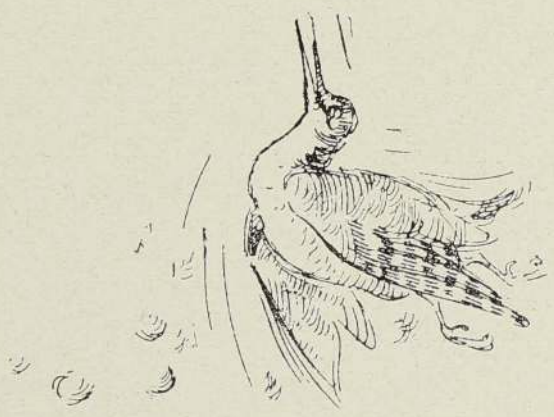
.375 .. Magnum Flanged.
300 gn. Solid and Soft.
270 gn. Soft Nosed Pointed.
.375 .. Magnum Rimless.
300 gn. Solid, Soft and Westley Richards Copper-Capped.
270 gn. Soft Nosed Pointed.
235 gn. Copper Pointed.
.318 .. Magnum Rimless.
250 gn. Solid and Soft. Also W.R's Pointed Nickel-Capped and Copper-Capped.
180 gn. Solid and W.R.C.C.
.30-06 Rimless.
220 gn. Soft.
180 gn. Copper Pointed.
150 gn. Soft and Copper Pointed.

MEDIUM BORE

.375 Flanged. 270 gn. Solid and Soft in 2½ ins.
.375 (9.5mm. M-S.) Rimless. 270 gn. Solid and Soft.
.366 (9.3mm.) Rimless. 285 gn. Solid and Soft.
.355 (9.0mm. M-S.) Rimless. 245 gn. Solid and Soft.
.355 (9.0mm.) Rimless. 245 gn. Solid and Soft.
.350 (Winchester) Rimless. 250 gn. Soft.
.333 Rimless. 300 gn. Solid and Soft.
.315 (8.0mm. M-S.) Rimless. 200 gn. Solid and Soft.
.315 (Mannlicher) Rimless. 244 gn. Solid and Soft.
.311 (7.9mm.) Rimless. 227 gn. Solid and Soft.
154 gn. Solid Pointed and Soft Pointed.
.303 (Savage) Flanged. 180 gn. Solid and Soft.
.303 (British) Flanged. 215 gn. Solid and Soft.
174 gn. Solid and Soft Nosed Pointed.
150 gn. Copper Pointed.

If your calibre is not mentioned above it would be advisable to get in touch with Messrs. I. C. I. as they are the sole manufacturers of sporting ammunition in Great Britain. Once the existing stocks of any type or calibre, not mentioned above, has been exhausted, that particular cartridge will then become obsolete.

A MOUTHFUL PERCHED ON TOAST



I've walked for miles through paddy fields
Where every step to pressure yields,
Where mud in fact can seem to cling
Like some more animated thing
To legs grown weary but for hope
That one small snipe will prove a dope,
And so allow a hurried shot—
Of which, if I the bird have got,
I afterwards can boast.

Yet though the sun builds up its heat,
While gritty mud abrades my feet,
And deck-chairs, baths, cool drinks may seem
The truth—and further progress dream—
I've struggled on with strained, dull eyes
Till I've obtained my well-earned prize ;
Until in fact a bird I've shot,
Which even when it's cooked is not
A mouthful perched on toast.

PADDY.

Trout Fishing in Kashmir

By PHILIP K. CROWE

IT is almost impossible to improve on the fabulous Himalayan pleasure land of Kashmir but two men succeeded in doing it. The Mogul Emperor Jehangir built the lovely Shalimar and an Englishman named Mitchell imported brown trout. The result is that today one can wander among the flowers and fountains of the famous garden by the Dal Lake or, as I prefer, angle along some of the world's most sporting and spectacular streams and rivers.

Simply getting to Kashmir from the Island of Ceylon, where we now live, took a bit of doing. The distance from Colombo, at 6° north latitude to Srinagar, capital of Kashmir at 34° north is 1,848 miles but, as we were tied to commercial air travel, the trip was nearly a quarter longer. Flying first to Bombay and then to Delhi, where we spent the night as guests of Ambassador Cooper and his attractive wife, we finally took off on Indian airlines for the flight to the Vale of Kashmir. From Jammu, the last airfield in the plains of India, we climbed rapidly (without pressurized cabin or oxygen) and sailed over the nine thousand foot Banihal Pass. On either flank snow-capped peaks towered over us while below, like the teeth of a vast brown shark, lay other jagged summits. Our enjoyment of this superb vista was somewhat lessened by the knowledge that if the pilot found fog at the end of the pass he would have to turn around and return to Jammu. We were lucky and, even though we coasted through a white blanket of cloud for a few minutes, it soon tore apart and we looked down on the sparkling valley that is the Vale of Kashmir. Emerald green paddy and fields of crimson poppies and yellow mustard lay spread below like some gorgeous tapestry. Well did the Mogul Emperor cry " If there be paradise on earth. This is it, this is it, this is it."

We—my wife, Irene and my daughter Rene and I—were met at the airport by G. M. Butt, a cordial white-bearded Kashmiri whose house boat, the "Clermont," we were to make our base during our 17 days stay in Kashmir. I might add that Mr. Butt specializes in Americans, having had Adlai Stevenson and George Allen, former Ambassador to India, as his guests. What is more his boats, moored on the edge of the Dal Lake, are extremely comfortable and his food excellent. Said Mr. Stevenson in the guest book " an enchanted interlude that mended body and mind." As Mr. Stevenson made his trip to Kashmir shortly after his defeat in the presidential race, Mr. Butt's hospitality must have been really extraordinary.

Kashmir has some three hundred miles of trout water ranging from altitudes of above eight thousand feet to about five thousand. Most of these streams are within sixty miles of Srinagar and are laid out in " beats " or two-mile stretches, which can be rented from the Government. There are other streams, however, that were formerly the private preserves of the Maharaja Hari Sing and are now reserved, for State guests.

The best of these—the Tricher, the Nambal, and part of the Liddar—are located in the lovely Liddar Valley and provide some nineteen miles of superb fishing. There are also certain very good streams such as the Kukernag and the Kotsu, in the Liddar Valley, and the Verinag in an adjoining valley where the fishing is open to the public on a limited basis and is very good. The last category of streams are those open to the public at all times and include most of the Liddar and the Bringhi in the same general area—about fifty miles south-east of Srinagar—as the streams mentioned above. North-west of the capital is the famous Sindh river where there are a number of good public beats and near the mountain resort of Gulmarg, twenty miles from Srinagar, is the Tanmarg which holds some good fish even though the altitude is over eight thousand feet. The Kuragbal district in the far north of the State is closed as it runs along

the Pak-Indian cease fire line and the Madmatti and Erin streams, which lie south of it and empty into Wular Lake, the largest fresh water lake in India, have not yet recovered from the disruption following the invasion of the tribesmen during the partition troubles of 1947. There is also said to be some good public fishing near Vishensar but the trek to it takes several days on ponies.

Through the kindness of His Excellency Sri Chakravarty, High Commissioner of India in Ceylon, a wire was sent on my behalf and when I called on Mr. G. M. Malik, chief of the Fish Preservation Department of Kashmir, I was told that I would be allowed to fish some of the reserved waters as well as the public ones. Col. Harry Nedov also wrote for me to the Vizier Amin Chand, Controller of the Household of His Highness, the Yuvaraj. Another friend who went out of his way to help me arrange my Kashmir fishing was F. C. Badhwar, former director of the Indian State Railways and one of the keenest fisherman I know. Also most useful from a fishing standpoint was a book called "Kashmir Cameos" written by my friend T. W. Hockley of Ceylon.

On the crystal clear morning of Friday, May 13, we took off in an old Chevrolet station wagon for the Verinag, a stream some forty-seven miles south of Srinagar. We had been unable to book the government resthouse there so decided to camp out and our tents and camp furniture were piled on the roof of the car. Momdu, Mr. Butt's number one servant and an shikari with a great deal of camping experience, was in charge. There was also Sultana, the cook and Mohamed, the chauffeur. The road to Verinag is the road to Jammu and runs straight down the Vale of Kashmir to the Banihal Pass where we swing left instead of continuing over the pass into Jammu. For a great deal of the way poplars line the road and the fields on either side were ablaze with poppies and blue and white Iris marking Moslem graveyards. We passed herds of sheep and goats, tended by wild-looking men from the mountains and once a gypsy encampment with the curious little igloo-shaped felt tents that are the homes of gypsies in this part of Asia.

There were many soldiers on the road and all bridges were heavily guarded. The previous day fighting had broken out between the Indian and Pakistan outposts along the cease fire line in Jammu and fourteen men had been killed, eleven of them Indians, of which one was a major.

As we passed through the mountain terrain just below the Banihal Pass we saw some dangerous washouts. Twenty years ago when I made the trip over this Pass in a model T Ford the road was so bad that we took three days to do the trip and barely crawled around the corners. It is because it is so difficult to maintain the road in avalanche country that the Indian government is now engaged in building a tunnel under the mountain that will allow year-round surface access to the valley. A German firm has the three-year contract.

The Verinag, the source of the Jhelum, is a spring-fed stream born in a great fifty-four-foot deep chasm around which is constructed a circle of Mogul arches. The stream is then led by canals through a lovely garden built by the Emperor Jehangir and finally spills out into its own bed where it provides a series of fast runs and deep pools.

There are some huge trout in the spring itself, which, over the centuries, have come to have religious significance to the Hindus. I watched an old man feeding them with rice and, looking down into the green depths, saw submarine-sized fish turn lazily to accept the offering.

Abdul, the old watcher, met us at the edge of the stream and after examining my permits carefully—he was apparently amazed that anyone was allowed to fish there as the stream had been closed for two years—beamed at me and immediately supplied me with Rishu, his best shikari. I noted in his fishing book that the last person to fish the Verinag before it was closed in 1953 was our friend the Maharaja of Indore who enjoyed some fine sport, his best catch

being a thirteen pounder that he will undoubtedly remember for many years to come.

I had been advised by Mr. Ogden, the British manager of Lloyds Bank in Srinagar, that big gaudy lures hooked the big fellows in Kashmir and accordingly I had purchased a dozen monsters made of peacock feathers. Rishu had shaken his head sorrowfully when I tried to tie on an Alexander, one of my favourite Ceylon flies, but broke into a broad grin and nodded his head sagely when I finally produced a peacock. Tying this to a 2-X gut leader and adding a little lead wire near the fly, I was set to attack.

It had rained for several days and the water, even though it came from a spring, was so coloured that it seemed impossible that a trout could see even my whiskbroom-sized lure. My first cast, however, showed me that the fish of Kashmir have better eyes than they do in America. A lively one-pounder broke water, curved over the fly, and dragged it under with a jerk. I played him for a while and then let Rishu net him, an operation he performed with skill. The second cast also hooked a trout but he did not rise and it was not until I started to put strain on him that I realized that I was onto a big fish. I found that I could not lead him but kept all the strain on him I dared while he went where he liked. Starting at the head of the pool, which was about fifty feet long, twenty feet wide and perhaps ten deep, the trout swam rapidly to the foot, hesitated a moment, and then ran down the swift water into the next pool. I had only thirty yards of tapered line but luckily had my waders on so was able to plunge after him despite the icy water. In the next pool he played the same game and after swimming around lazily for a few turns, took off again down the river. It was during his second run that I first saw him—a flash of yellow belly and a great beak of a mouth. He was visibly tiring and at the head of the third pool Rishu got his net under him and with a two handed scoop brought my prize to shore. He tipped the scales at 3½ pounds, a nice trout if I say so myself.

It was only after the trout was landed that I happened to look around and realize that I had an audience. There were a good fifty Kashmiris observing the proceedings from either bank and a mutter of approval broke from them as we triumphed over the big fellow.

I caught eight more fish averaging two pounds but let them go. There was no point in keeping more than we could eat and four and a half pounds of fish is a good breakfast for six in any country. At noon rain clouds gathered and I quit for the morning. While I had been fishing, camp had been pitched and a better location would be hard to find. Behind the tents a forest of fir trees climbed toward the snow peaks and before them lay the sweep of the river, winching away between the poplars to the village of Verinag.

In the late afternoon, when the shadows were beginning to creep down from the peaks, I fished again ; this time taking Momdu as shikari. We were interested only in a really big fish and accordingly tried only one pool, the one below a long race where the roots of a huge Chinar tree formed a subterranean chasm through which the white water thundered. I allowed the fly to drift under slowly and then pulled it back to me with short jerks. The fly was almost out from under the roots when there was a surge and big trout sucked it in and made off up the pool. This pool was long and deep and the trout had no desire to leave it. For ten minutes he wore himself out against the current and then came in nicely to the net. Weighing in at 3 pounds he was a prize worth having.

Back at camp, we sat before the tents, admired the light of the setting sun on the snow fields and sipped well earned Scotch whiskey and spring water. My wife and daughter who are not particularly fond of fishing informed me that they had put in a happy day. Irene sketched and Rene rode one of the little Kashmiri ponies. Sultana's dinner was a triumph of culinary art. He gave us fish soup, fried trout, shishkababs and rice, carrots, new potatoes, spinach, toast fritters and coffee ; all of which were produced

on a wood fire, converted by a sheet of metal into a semblance of a stove. Furthermore, Momdu encircled his waist with a blue cumerbund, added a turban and served us with great pomp and ceremony. I confess I never miss the "come-and-get-it-school" when something better is available.

Night came and the air, which is always brisk at six thousand feet, turned icy cold. We piled on blankets, closed the flags of the tent and slept. The last thing I heard were the drums beating in the nearby village for the end of the day's fasting. It was Ramazan and good Moslems could not partake of food or water until nightfall.

The first day's fishing had been on the Number One beat of the Verinag and the second day I went several miles down the river to the Number Two beat. The river down there having been fed by numerous freshets from the snows, carried a far heavier head of water and I had to add lead to my leader in order to sink the fly. The scenery also changed. Instead of the villagers' gardens through which the head waters ran, the stream now wound between endless fields of paddy whose brown waters reflected the snow peaks like so many copper mirrors. It was a lovely sight and for a few minutes I almost forgot to fish.

My first strike was in fast water and the fish, which I never saw, broke me with ease. Fitting another leader and tying on the proverbial peacock at the tip and a brown hackle on the dropper, I cast again into the wild water. Hardly had the flies sunk out of sight when two fish hit them and, even though one shook itself off, I netted a fine two pounder. And so it went during the long clear Kashmir morning. I kept four fish, all over a pound and my best was two and a half pounds. I lost four fish, all, of course, monsters, and threw back sixteen fish. The smallest trout I caught was ten inches long and I threw him back to grow up.

In the late afternoon we broke camp, drove thirty miles to the Liddar Valley, to camp on the Tricker River near the burned out ruins of the late Maharaja's resthouse. It is a beautiful location and has the added advantage of being several miles from the nearest village so that we were spared the crowding of the curious. However, the head watcher, Kudusmere, appeared as if by magic from the middle of a field of bright yellow mustard. In no time a working gang of five had been recruited to get up the tents, provide Rene with a pony, and erect my collapsible chair and desk so that I could write this log. As I mentioned above, the Tricker used to be one of the Maharaja's personal streams and is still reserved for guests of the government. The record brown trout caught on beats number 5 and 6, which were allotted me, was ten pounds.

As the sun set I took Rene out for a little practice and she hooked and landed two good trout at once on her first cast. The stretch of stream in front of camp fairly teemed with fish but they were not above a pound and small for the Tricker. The next day was Rene's thirteenth birthday and Momdu celebrated the event by having the cook bake a magnificent fish cake, replete with candles—which he borrowed from a nearby shrine.

The snow water is so cold that fishing is not good until the sun has warmed the stream a bit and it was nine-thirty before Kudusmere and his two retainers—one for carrying my kit and one for carrying the fish—led me down to the confluence of the Tricker and the Liddar, where the waters of the two streams meet in the great pool.

At this point I must say a word about tackle. Some years ago I bought an Orvis "Battenkill" fly rod. Made of impregnated bamboo, weighing 3 and ¾ ounces and 7 and ½ feet long, the rod has served me well under conditions ranging from the tropical heats of the low-country rivers of Ceylon to the Himalayas. I have used it for seer fishing in the Indian Ocean and for bass in Maryland. For trout I fit it with a British made Young Beaudex reel and tapered casting line.

The Peacock lure, which proved such a killer on the Verinag, did not please Kudusmere and

he insisted on a Golden Lion lure with a Watsons Fancy on the dropper. The Golden Lion, I might add, is just as fantastic looking an affair as the Peacock, only more so. A medley of tawny coloured feathers tied to two golden bound hooks, is a device to tempt a shark. Kudusmere also objected to my 2-X leader. "All right little fish of Verinag" he said but here "him bust quick."

However, I decided to try with the 2-X and accordingly cast out over the pool and drew the line in slowly, allowing the flies to sink about six inches below the surface. There was a surge, a sharp pull and the new Hardy gut leader parted with a ping. Changing to 1-X I was soon in to another fish and after a good battle Kudusmere netted a fine three and half pounder. By noon the coolie carrying my kreel was staggering under 18½ pounds of fish (presents for friends in Srinagar) resulting from a grand morning's sport ; the total included a 4-pounder which was netted just as the leader parted, a 3¾-pounder that led me into a pool above my waders ; a 3½ pound rainbow, the only rainbow I caught on this beat, and four good fish ranging from 2 to 2¾ pounds.

After a succulent lunch of fish and duck curry, we slept for several hours and it was not till four that I invaded the stream again. This time we went directly to the Liddar with the intention of bettering my erstwhile record of four pounds. Starting to fish at the foot of a long run of heavy water, I caught several two-pounders which I released, and was just about to move on down stream, when my dropper fly, which was dancing along the water, was suddenly sucked under with a splash. That the fish was a big one was obvious when I tried to check him. Paying no more attention to me than a runaway horse, he took off up stream and churned his way against the current like an ice braker. Before he breasted the white water into the next pool I saw his dorsal fin and the square of his tail. It was a shattering experience.

This was a great fish and the thought of losing him was nerve-wrecking. Even Kudusmere, who has been a Shikari for forty years and head watcher of the Tricher for ten, was moved to excitement and implored me to be careful. I was as careful as one could be with a limited footage of line and a plunging whale at the end of it. My main worry was the leader ; would it take the strain ? Once the line went dead and I feared the fish may have thrown the fly but the line had caught on a rock and was soon freed. Then, all of a sudden, the fish tired and I was able to move him slowly toward the bank where Kudusmere waited, net in hand. Creeping up behind the weary giant, he slid the net under it and then, using both hands, lifted it from the water. Superlatives should be saved for someone else's fish so I will simply say that it was a fine trout and weighed 5½ pounds.

Back in Srinagar, I lunched with His Highness, The Yuvaraj, the constitutional head of the government, and thanked him for his permission to fish the state streams. Formerly a keen angler himself he was interested to hear of my luck. In recent years, however, he has given up both hunting and fishing as they are inconsistent with the Hindu religion.

The closest trout stream to Srinagar is the Sindh river, some thirteen miles out, and even though it is open to the public and is therefore over-fished, I decided to have a day there. It was a glorious clear morning when we drove up the Sindh Valley. This is the road to Leh and I was amazed to see how much it has been improved since I last travelled over it by pony in 1935. In those days it took several days to reach the border of Ladahk at Sonamarg and today one can drive the 52 miles over a good metalled road in an hour and a half. Near the village of Ganderbal we were met by the watcher, a fine old shikari named Ramon, and a pony for Rene.

The Sindh is a big river and, since spinning is allowed there, I had little hopes of a decent bag. Ramon told me, however, that, as most people did spin, they only fished the long deep pools and he advised me to try my flies—the old favourite peacock and Watsons Fancy—on the

fast water. I did just this and caught six fish in the course of the morning. The largest was only a pound and half and the smallest just over half a pound but in aggregate they made a good mess for lunch. There are some big fish in the Sindh. The son of Sheik Abdullah, the former Prime Minister of Kashmir, caught a 12-pounder there a month previously. Mr. Butt, who had come along with us for the day, supervised the cooking of the trout and we ate them in the shade of an old mulberry tree. There is a small silk industry in Kashmir and the leaves of these trees are used to feed the silk worms. Then, as I was feeling a bit tired, Mr. Butt advised a massage and I was surprised to learn that most fishing shikaris have been trained to give their sahibs a reviving pummeling. Ramon gave me a fine one and I soon fell asleep.

In the afternoon, we fished for an hour or more and then called on Madelaine Slade, the British Admiral's daughter who, under the name of Mira Bhen, was one of Gandhi's most cherished disciples. She now runs a cattle-breeding farm for the Kashmir government. Being a vegetarian, she refused my offer of trout but gave us tea and several hours of fascinating reminiscence. She was not greatly changed from the time I first saw her twenty years ago with Gandhi in the Untouchable settlement outside of Delhi.

Our next outing was to last five days and take us back to the Liddar Valley where we had permission to fish the Nambal, the favourite stream of the old Maharaja and the number one trout stream of Kashmir. We also intended to fish the Kotsu and Kokernag. The station wagon we had used on our last trek was not up to this trip and Mr. Butt produced a sturdier, even though older, vintage of Chevrolet. There was also a new driver, who glorified in the unusual name of Mohamed, was 20 years old and wore a green shirt that was dirty even for a Kashmiri driver. He could drive, however, and manipulated his top heavy jalopy through the sheep, donkey caravans and army convoys as if it were a Cadillac town car. Momdu was again in charge and Sultana cooked.

Since the 1947 troubles, the trail to the Nambal had been allowed to deteriorate and soon after we turned off the main road to Pahlgam we found ourselves facing a washed out bridge. There was only one alternative and that was to build up the bed of the stream. Thank God it was dry and, a tribe of Kashmiris having appeared from the fields, enough stones were added to allow us to negotiate the hazard. Four rickety bridge and some six miles of terribly road later, we arrived by the banks of the Nambal. Behind a wooden fence we saw the Maharaja's resthouse but had decided to camp and pitched the tents on the edge of the stream.

We were situated only some ten miles from our former camp on the Tricher and had the same horse-shoe of snow peaks on three sides. The nearby mountains, however, were densely wooded with pine and as the sun set I heard the cry of chakor partridge. The old resthouse-keeper, who told me with pride that he had been with the Maharaja for thirty years, said there were bear on the mountains and when the corn was ready for harvesting they came down to the fields and sometimes attacked the villagers. I told him that if by chance one of the bears mistook the season and appeared early, I was ready for him. It always pays to be ready for emergencies and I had brought along my 8 mm. Mannlicher.

The Nambal is not really a river with a source of its own ; it is merely a branch of the Liddar, which runs for some five miles on a loop from the main stream. For those five miles, it carries the best head of trout in Kashmir. In addition to this Nambal, however, there is a little or " chota " Nambal, whose origin was duly explained to us.

" The Chota Nambal," said Kudusmere, who was head watcher for that stream as well as the Tricher and had galloped over on his pony when he heard we had come back again to his ballywick, " was made by the Maharaja, not like the Tricker, which was made by Allah," and even a casual survey of this perfect trout stream

would reveal that a power other than nature had laid it out. Every hundred yards there were man-made dams of stone which stretched part of the way across the stream only leaving a race way in the middle. The result was some five miles of pools which could be fished with the greatest of ease. There was no underbrush nor trees to catch one's fly on the back cast and a grass trail, as smooth as a tennis court, followed along the sides of the pools. An invalid in a wheel chair could catch trout on the little Nambal. The little Nambal was laid out as to dams' channels, pools and runs before the water from the Liddar was diverted to it. When it was finished some fifteen years ago and His Highness caught his first trout in it he, like the Moguls contemplating their gardens, must have sat back and murmured words about a fish paradise.

Tempting as the Nambals were, I decided on our first morning's fishing to eschew them and return to my old love the Liddar. My fishing diary of May 20th records :

Weather.—Clear, warm in the sun but crisp in the shade, white clouds over the snow peaks.

Streams.—Gin clear in places but green-grey from snow water where feeding streams come in.

9.30 a.m.—3-pounder.—Time from strike to netting seven minutes. Fly-silver doctor lure. At the same time my daughter Rene caught a two-pounder.

10.30 a.m.—Two one and half pounders on Watsons Fancy.

11.30 a.m.—On the run just below the Tricker confluence, a very heavy fish. Netted after fifteen minutes and tipped scale at 6 pounds. Length 23 inches and my best fish to date.

12 noon.—As artificial minnows are allowed in the Liddar, I tried a Golden Devon and immediately caught a two-pounder. There is no charm to casting this object, however, and I quickly returned to flies.

In the afternoon, I had my first whack at the big Nambal and everything I had heard about it was an understatement. I really believe that it maintains more trout per square foot than any river, outside of Alaska, that I have ever fished. The second my fly hit the water there was a surge, and, if that fish missed, there was a series of other surges before I retrieved. I only fished two hours that afternoon. The total number I caught was fifteen and I weighed them to find a total weight of 40 pounds. There were no fish over three pounds. I threw them all back.

Late in the afternoon the weather turned menacing and a wind suddenly sprang out of the mountains and blew so strongly that I had no control over my fly. At the same time a grey mass of rain clouds piled up in the East but for some reason hung above the snow peaks so that for a little while the shining mountains, bathed in sunlight, were visible as if through a window. Later I learned that Irene and Rene had had a bad time at camp. The tents were only saved from blowing down by Mondu who piled stones all around the edges. The cook tent did blow down twice and Sultana had to retrieve it before he could start our dinner.

All food seems to taste good on a camping trip but the cooking often derives its praise from hunger rather than skill. Incidentally menus in Kashmir are limited ; the Hindus won't kill cows or allow beef to be imported and the Moslems feel the same way about pigs. Sultana was a really good cook and, unlike some of his ilk, was only too pleased to tell me how he did it. His basic equipment would drive most chefs wild ; it consisted of a flat piece of iron with four holes in it for pots. It was up to Sultana to find stones and firewood to complete his stove.

Sultana's fried fish, which we usually had for breakfast, was particularly delicious. He fileted the trout, fried them in deep gee (butter) and added powdered chili, pepper and salt. My wife pointed out, however, that fried fish was not an art but that Sultana's baking of a great trout (the six-pounder), without an oven, was. He put the trout in the largest pot he had and covered it over with an iron plate on which he kept piling live coals. The whole process took upwards of three hours. Onion, garlic, lemon,

salt and pepper were added at the right times. His receipt for Rene's birthday fish cake was first to boil three two-pound trout, take out all bones chop up the meat, mix six eggs with it, and the usual spices. No one could appreciate the conventional birthday cake of flour after one of Sultana's fish cakes. But of all his fish dishes, my favourite was fish pilau, a speciality of Kashmir cooking. The fish were boiled, boned, and cut into small pieces, then fried in deep butter in a curry mixture that included cinnamon, cardamom and various unpronounceable spices. Served with the white hard rice of the country, it made a meal that induced a solid two hours of sleep.

St. Anthony was tempted, as we all know, but no one but a fisherman knows that a fisherman has frequently to face temptations of magnitude. I refer, as all fishermen will immediately realize, to the temptation of bait for the big ones. The fly fisherman, like the good Christian, has a certain code of morals and it does not include the taking of trout or salmon on any other lure than a fly, preferable a dry fly. Imagine, therefore, the crisis I had to face when under the bridge at the place on the Little Nambal where the first beat ends and the second begins, I saw a submerged battleship of a trout, cruising in five feet of clear water. All around me on the swampy ground were myriads of little frogs, the steak and potatoes of big fish. Furthermore, in my kit I had a wide variety of metal, cloth and wool contraptions which would be hard for any monster to ignore. I looked at the trout and he looked at me and we both shook our heads ; I just couldn't sink to the unspeakable (I might add here that nothing but flies are allowed on the little or the big Nambals) and he couldn't bring himself to bite on my flies. This was the impasse, when the watcher came along and tactfully suggested that I try a pool a little further on. He was a fisherman and knew my dilemma.

While on the subject of really big trout, I would like to express the opinion that in Kashmir, America, Alaska, Ceylon and even perhaps in England few if any whoppers are caught on flies. In some thirty years of fishing —I caught my first worthwhile trout, a three-pounder on a worm, when I was fifteen—I have never been able to tempt a really big trout with a fly. I have often managed to get their interest, but have never been able to induce a trout of over ten pounds to take a fly. Furthermore, the Shikaris of Kashmir become strangely silent when pressed as to the exact lure on which the Maharaja of this or Lord that actually caught their record fish.

But I could not complain. My last evening on Nambal resulted in seven really good fish ranging from $3\frac{1}{4}$ to $5\frac{1}{2}$ pounds, all of which I returned.

The following morning I was called at six and set off with Kudesmere for the fifteen-mile drive to the Kurtsu. How Mohamed managed to guide the old Chevy along those goat-trails I do not know. Kudesmere and I dismounted at all bridges, commended the car to Allah, and watched fascinated while it bucked over them. The Kurtsu is also in the Liddar Valley but at the far end of it, so I was able to get a broad impression of the country. Most of the land is dedicated to rice and, with an adequate water supply, this is logical. There is also considerable grazing land and I noted herds of tough ponies, wiry goats and sheep and some of the thinnest cattle I have ever seen.

The Kurtsu is one of the prettiest and certainly the least rewarding trout stream in Kashmir. Flowing between groves of Walnut, Chinar and Poplar which filtered the amber sunlight, the stream is an artist's dream but a fisherman's despair. The trees effectually prevent casting and the village, which marches just behind the line of greenery, contributes some unappetizing odours to the scene. Despite these handicaps I managed to catch six trout of about a pound each, releasing all but the biggest which I presented to a small girl. I also caught several Chushu, a fish esteemed by the villagers but looking exactly like our suckers. The largest

Chushu weighed in at four pounds and gave me quite a tussle before he was netted.

The watcher, one Shirkari, told of a great trout. "This long, Sahib," said he stretching his arms apart to their greatest extent. The giant was reputed to inhabit a pool under an old Chinar tree and, while I dangled a fly in it, I learned something of poaching. According to Kudesmere and Shirkari a lot of it goes on, not on their beats, of course, but on virtually all others. And there is adequate economic incentive for it. A five-pound trout brings three rupees, about sixty cents, in the market, with smaller and better eating trout appreciably more. Furthermore the fines, which in the days of Hari Singh, used to be rigorous, have been greatly reduced. But quite aside from illegal netting, the criminally inclined fisherman can make a profit quite legitimately. He pays three rupees for a day's license, allowing him to catch six trout. He then sells the trout for an average of a rupee each making a net profit of three rupees on the day's "sport." Since a common labourer gets somewhat less than this, there could be considerable appeal in the profession.

There were many birds in the trees along the flycatch stream and I noted the flycatcher, a little red-breasted bird, that winters in Ceylon and summers in Kashmir. There were also Hoopees, the crested striped species, with the sweet song, and far up in the sky hawks sailed. Falconing still goes on in Gilgit and the Frontier borders but no longer in Kashmir.

Last stream on our fishing itinerary was the Kokernag and we drove to the Kokernag Valley, some twenty-five miles from the Liddar, in the golden light of late afternoon. The road, which I remembered from my former trip as a trail of the most primitive sort, had been made into a first-class gravel highway with stone and solid timber bridges. Quite aside from other considerations there is no question but that the occupation of the Vale of Kashmir by the Indian army has resulted in a vast improvement in transportation. I understand this is true also of Pakistan-occupied Gilgit and Baluchistan.

In contrast to the open, almost treeless, plain of the Liddar Valley where we camped for the previous three nights, our tents on the Kokernag were pitched in a grove of willows and sheltered from the winds by protecting hills on all sides. Allemere, the watcher, and, Kadra, the shikari, arrived soon afterwards and assured me that their stream while not "special," like the Nambal and Tricker, did have good fish and they would show them to me. Like the Verinag, the Kokernag is a spring-born stream and is famous for the purity and mineral content of its waters. Tasting it, I found this boast to be quite true; the water was delicious. There are very few places East of Suez where one would dream of drinking out of a stream.

The Kokernag was the best "public" stream I fished. It is not only beautiful, scenically, but held plenty of fish. They are not large; my best being only two pounds and the average about a pound, but I caught five in an hour during the first evening, eight the following morning, and six my last evening. I used a green Highlander lure and a March Brown on the dropper. The beat I had rented, the lower Kokernag, was two miles long and included many good pools and only a hundred yards or so of "village fishing." Most Kashmir trout streams flow at times through villages and trout were especially plentiful in these stretches; perhaps because the watchers could keep a better eye on them there and perhaps, because of the constant washing of clothes, there was more for the trout to eat. I invariably returned these village trout.

All of the trout recorded in this account were browns except one, a rainbow which I caught on the Verinag. All three of the hatcheries—the two outside of Srinagar and that at Auchibal—breed rainbows as well as browns. I was particularly impressed with the Auchibal hatchery. Situated as a kind of annex to a Mogul garden, the trout enjoyed the same fresh spring water as the flowers and the same keeper,

who showed us the pansies, showed us the trout pens. He fed the fish on dried silkworms; and did they seemed to thrive! The browns I caught were all in the pink of condition and without exception put up fine battles. The stomachs of several browns, which I personally examined, showed they had fed on frogs, fresh water cray-fish, little trout and other small fish.

At various times I tried American and British standard wet flies with very little success. One or two of my Scotch salmon flies were effective but nothing duplicated the killing power of the peacock, golden lion and green highlander lures. Dropper flies I found superfluous and caught only about ten per cent. of my total on them. On most streams the fish are big and the water is fast so that strong leaders are necessary. I broke four 2-X and three 1-X leaders and certainly would not attack any Kashmir trout on leaders of less strength. On several occasions in the evening, when there was no wind, I tried dry flies and did induce a few small trout to rise to them. I understand that it is only in September that they are really effective.

Some of the resthouses are quite good but none have the charm of tenting. With canvas you are free to choose the location of your home and in Kashmir you can find some supremely beautiful camp sites. As I have often mentioned in this account, good and industrious servants are a blessing on a fishing trek. All of our three boys doubled in brass. The chauffeur helped pitch the tents, carried water for the cook and acted as an auxiliary butler, bringing the food from the cook tent to a serving table when it was ready to be served by Mondu. Mondu, himself, not only butlered but often went along with Rene as fishing Shikari and every evening gave my weary frame a strong massage. The cook gave us really first-class meals with three-course lunches and four-course dinners. He made savory curries, delicious desserts, and was able to serve trout in five different ways.

We went to Kashmir in May and even though the days were bright and warm the nights were very cold. We slept under three blankets and wore flannel pajamas. Baths—wonderful affairs in a tin tub—were taken at high noon. The girls wore blue jeans and sweaters and I wore wool shirts. Good heavy coats were necessary in the evening. The streams are freezing and unless one likes to wade in ice water I strongly advise fishing in waders. Sun glasses are also useful as there is a lot of glare on the stream at an elevation of over a mile. Whiskey is obtainable in Kashmir only at an exorbitant rate so bring it with you from India.

The fishing on the public waters in Kashmir did not seem to me to be exceptional. Streams like the Lower Sindh, the Kurtsu, and the Kokernag provided good fishing but it was really no better than the fishing on good public streams in America and Canada. I did not, however, fish the two best public streams—the Bringhi and Upper Sindh—which are said by old timers in Kashmir to provide some really spectacular sport, especially in the Fall months. The reserved streams, of course, rank with the best in the world.

The taking of trout tonnages, however, is to my mind only a part of the fun of fishing in the Himalayas. There is the camping, the beauty of the scenery and the sense of space. The mountains of Kashmir are the "roof of the world" and as Kipling so aptly said "he who has smelt the snows will return to them to die."

TROUT CAUGHT IN KASHMIR

Date	*Stream*	*No. Caught*	*Total Weight*	*Best Fish*
May 13	Verinag (No. 1 beat)	11	24½ lbs.	3½ lbs.
May 14	Verinag (No. 2 beat)	20	37 lbs.	2½ lbs.
May 15	Trichar (Nos. 5 and 6 beat)	7	18½ lbs.	4 lbs.
May 15	Liddar (No. 5 beat)	3	9½ lbs.	5½ lbs.
May 18	Sindh Lower	7	4½ lbs.	2 lbs.

TROUT CAUGHT IN KASHMIR—(*Contd.*)

Date	*Stream*	*No. Caught*	*Total Weight*	*Best Fish*
May 20 (morning)	Liddar	5	12 lbs.	6 lbs.
May 20 (Afternoon)	Big Nambal	10	17 lbs.	$2\frac{3}{4}$ lbs.
May 21 (Morning)	Little Nambal	12	25 lbs.	3 lbs.
May 21 (Afternoon)	Liddar	6	$27\frac{1}{2}$ lbs.	5 lbs.
May 22 (Morning)	Kirtsu	6	$5\frac{1}{2}$ lbs.	2 lbs.
May 22 (Evening)	Kokernag	5	$6\frac{1}{2}$ lbs.	$1\frac{1}{2}$ lbs.
May 23 (Morning)	Kokernag	8	$12\frac{1}{2}$ lbs.	2 lbs.
May 23 (Evening)	Kokernag	5	$6\frac{1}{2}$ lbs.	$1\frac{1}{2}$ lbs.
	Total	105	$256\frac{1}{2}$ lbs.	

Only the fish we wanted for eating were kept. *All others were returned.* Limits on streams range from four to six fish per day, far more than a party of three can consume, especially as the average is better than two pounds.

Elephant Control in East Africa

By A. M. M. DAVIES

FOR some years now there has been criticism aimed at the existing system and ultimate results of present day methods of elephant control by the Game Departments of British East Africa.

Amongst some of the accusations of the ignorant are that the various departments are guilty of shooting all the large tuskers thereby leaving only the small ones for licence holders ; that since the inauguration of government paid hunters, far more elephants are being killed annually than ever before, even to the extent that the African elephant is in danger of extermination. Without any doubt it can be safely said that neither of these accusations are based on fact and the present system of control is the only secure means of trying to preserve the elephant in association with man. To those who may doubt the truth of this statement and to those in Ceylon who are interested in trying to preserve our few remaining elephants, some facts concerning elephant control in the three territories of British East Africa, may be of interest.

Ever since the opening up of East Africa some hundred years ago, the country has become the world's greatest source of ivory and, with the handsome price this commodity has always secured (approximately fifteen shillings per lb. at the ivory auctions held at Mombasa in 1951) it is not surprising to learn that anything up to seventy-five to a hundred thousand elephants were killed annually during these early years. Unlike present-day conditions the elephant of the nineteenth century was a far easier adversary than he is today, and when one considers the slaughter that used to take place, both by natives and ivory hunters, with the aid of pitfalls, poisoned arrows, traps, organised massacres and the final introduction of the high powered rifle, it is not hard to believe that so many animals were killed annually. John Taylor, a professional hunter of over thirty years experience, maintains that the quantity of ivory passing through Khartoum yearly fifty years ago must have required some 20,000 elephants from Uganda and the Sudan to supply it.

This was the position before the advent of the various game departments, but now practically all elephant control work in East Africa is carried out by the staff of the game departments and is not, as in Ceylon, entrusted to people outside the department. This method ensures that the *right* animal is destroyed at the

right time and *in as humane a manner as possible.* The very recent savage, and almost sadistic, death of the elephant shot by the Kantalai police during September this year illustrates in what manner elephants are sometimes destroyed. This animal finally died after receiving nineteen shots. The elephant control staff are neither interested in killing a large number of animals nor in choosing those with the heaviest ivory as they have no pecuniary or any other interest either in the amount of ivory or in the amount of animals destroyed in the course of their work. It would be most gratifying, and I am sure more successful in the long run, to see such an "elephant control section" inaugurated in the Wild Life Department of Ceylon where the destruction of "rogues" would be in the hands of a body of specially picked men from the department who should be in a far better position of fulfilling the job than entrusting the work to, sometimes, supposedly "competent sportsmen." The present system of control in force in Ceylon is too open to abuse and the resulting anguish that is often inflicted on the proclaimed, and sometimes even an unproclaimed, animal is undeniable.

It is the policy of the three departments, Kenya, Uganda and Tanganyika, to select in any troublesome herd, only tuskless animals, a "boody," as they are sometimes called. If, however, there are none or if it should be necessary to destroy more than one animal, single tuskers or those with small tusks are chosen. The average weight of ivory obtained on control in Tanganyika in 1953 was 11 lbs. per tusk as against 53 lbs. per tusk obtained on licence. In Uganda 77% of the tusks obtained on control were under 20 lbs. each, or an average of 13¾ lbs. per tusk. From these figures the reader will realise how incorrect the allegation is that the various departments only shoot the large tuskers.

To prove the incorrectness of the second of the two allegations; that the game departments are responsible for the annual destruction of nearly as many elephants as were destroyed in the early days before the introduction of elephant control, I quote the returns of the number of elephants killed on control work for the three departments during 1951 and 1952. These figures speak for themselves.

Year	*Kenya*	*Uganda*	*Tanganyika*	*Total*
1951 ..	102	639	1,837	2,578
1952 ..	82	477	2,420	2,979

The comparatively large figure shown against Tanganyika is due to the heavy elephant population and the ever-increasing African population with its consequent need for more and more cultivation.

Apart from the erroneous statement that the African elephant is in danger of extermination, it is often asked if the elephant population is actually increasing or decreasing. It would be quite impossible to give an accurate estimate as to anything like the exact total elephant population of British East Africa; any figures must be regarded as mere "guesstimates." One thing, however, is quite certain that *Loxodonta africana* is in no danger of extermination. Authorities on African wild life have put the population figure between fifty and seventy-five thousand which, at first glance, may seem a high figure, but it must not be forgotten that since the introduction of the various Game Departments and National Parks the elephant has been allowed a far greater chance of reproducing itself. It is now not uncommon to see nearly every cow with at least one calf at heel, a fact that was practically unheard of during the nineteenth century.

The credit for the survival of the African elephant is due to the vast sanctuaries provided by the National Parks and Reserves, and the hard and unceasing work of the Game Departments. The specialised work of elephant control

has been designed purely in the interests of the cultivator, the sportsman and the principals of game preservation. Any dispute as to the reasons or consequences of elephant control might well be left to the prudent judgment of those who have studied this subject over a period of many years.

THE ECLIPSE

Path of the Eclipse

OVERCAST skies defeated most observers stationed in the path of totality of the 1955, June 20 eclipse of the Sun. Only a few expeditions were able to carry out their plans.

To observers this eclipse was a tantalizing gamble. Astronomers were attracted by the unusually long duration of totality, which even reached 7 minutes 7.8 seconds at one point in the China Sea. Nowhere, however, were the weather prospects favourable. The path of totality was largely over oceans. The narrow zone of totality did cross Ceylon, Thailand, Indo-China, and the Philippines, but June in these countries occurs in the rainy season when skies are generally overcast.

Most observers chose eastern Ceylon for their expedition sites, as the mountains in the centre of the Island offered shelter from the south-west monsoon. This strategy enabled the Harvard Observatory party at Sigiriya to achieve some success.

Other eclipse observers in Ceylon were less fortunate. At Hingurakgoda, Dr. H. von Klueber, of Cambridge Observatory, England, had erected 15 tons of equipment to measure the Einstein effect—the deflection of starlight near the Sun's edge. During totality, however, a black cloud covered the region of the Sun. At this same station there were also Dutch, French, and Indian astronomers.

The weather was also cloudy for the Japanese and Swiss at Polonnaruwa. After the eclipse the disappointed Swiss astronomers flew their national flag at half-mast.

The most favoured of observers in the Philippines was Dr. Frank Back, of New York, whose preparations for air observations enabled him to watch totality for 11 minutes. Thanks to the co-operation of the U.S. Air Force, he observed from a T-33 jet trainer which flew at 600 miles per hour along the track of totality, in the same direction that the Moon's shadow was moving. In this way he could keep the corona in view four minutes longer than observers on the ground. Dr. Back obtained seven spectrograms of the corona. This means of stretching out the valuable minutes of totality should prove useful at coming eclipses.

A. T. J. BRITO in *Morning Times*.

At Colombo—*Mimosa Slept and Fowls Retired*

DURING the total phase of the solar eclipse the sensitive plant "nidhikumba" (*Mimosa pudica*) and the "kathurumurunga" (*Sesbania grandiflora*) folded up their pinnate foliage and went to sleep, as they do every night.

This was observed by the light of electric torches. The former remained "asleep" for about five minutes, after totality had ceased (8.15 a.m.) and the latter took seventeen minutes to re-open its foliage.

Our poultry were kept waiting for their morning meal until ten minutes before the onset of totality. As the plates of mash were laid out on the grass crows assembled on the surrounding trees to wait for the remnants. When the sky darkened the crows flew off westwards and the fowls left their food and scuttled off into their pens and remained silent; three birds entered their cages. The ducks waited outside their pens. As daylight returned all the poultry returned to their food and presently the crows were back waiting for their share.

Garden birds, which freely patronise a bird shelter supplied with fruit, disappeared from the garden before the phase of totality. The chipmunk squirrels ceased their chatter and a nocturnal hush descended over the garden with the darkness.

The first bird to greet the returning daylight was the " Koha " or koel-cuckoo, whose crescendo call was quickly followed by the cawing of crows. It took about ten to fifteen minutes before our usual bird visitors—mynas, kondeas, babblers, barbets, magpie-robins, sunbirds, etc. —announced their presence in the garden. Squirrels were seen creeping out of niches in eaves soon after the darkness had passed.

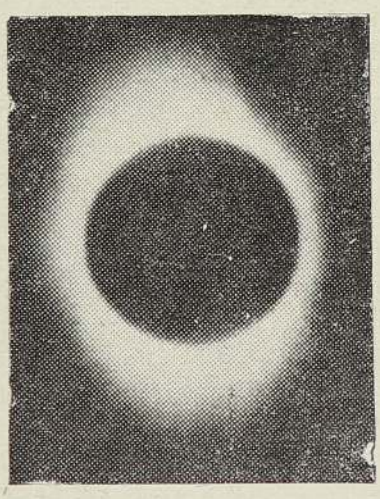
The dogs took no apparent interest in the eclipse. A Pekinese pottered about the garden, inquisitively wondering what we were up to with our torches. A Dalmatian continued to snooze on a verandah unconcerned about everything.

DR. ERNEST SOYSA *in Times.*

At Kalkudah

AT the crack of dawn on June 20th—eclipse day—on the disused and old jetty to Kalkudah, four cameras pointed like guns at the sky, searching for the path of the sun.

The sun was soon there, but as the time for the eclipse drew near a shroud of clouds enveloped it, driving despair into the hearts of the cameramen.



Mosquitoes, flies and insects did everything in their power to " sabotage " the work of the local photographic team.

But just as they were preparing " to pack up their guns " and leave, the sun broke from the clouds and "posed" for the cameramen in all the phases of perhaps the greatest phenomenon of our generation. Here reproduced are two of the results developed from the " stills."

Behind the cameras were George Powell. " Giji " Koch, St. John de la Motte and Ernie Moses—cameramen all.

Above, a crow at its roost stands out prominently against the crescent of the sun—to give Winston Flanderika a graphic eclipse picture.

Times.

At Mihintale

WE were among the many thousands of disappointed people who went to considerable trouble to get a good view of the eclipse and in the end saw much less of it than many who stayed home or went about their ordinary tasks, but happened to see the whole or the greater part of the celestial drama through a timely break in the clouds.

Nevertheless, we don't altogether regret that we took up our station for the great occasion at the foot of the great dagoba near the summit of Mihintale. The immense panorama which this point of vantage commands to the North and East provided an awe-inspiring setting for the sudden descent of darkness and of a silence unbroken by birdsong or the noise of animals and reflection even upon the plants which we saw fold up as though for the night.

Though no one in our party could be said to be distinguished for a highly developed religious sensibility, the thoughts of some turned to that darkness over the whole land from the sixth to the ninth hour which, according to the Gospels, marked the occasion of the Crucifixion. Dull would he be of soul who could fail to respond with reverence to such a spectacle or

could entertain frivolous thoughts on such an occasion.

Just how dull was vividly exemplified by another party which had come to the same spot, bringing with them compasses, cameras and tripods which suggested an earnestness of purpose unluckily belied by their demeanour. They had also brought an extensive retinue of children and babes in arms and an inexhaustible supply of small talk.

The infants, one could only conclude, were part of the material for scientific investigation for during the period of totality a senior member of the team was seen to concentrate his attention exclusively on the behaviour of one of them and heard to exclaim in delight to his companions : " I say, look men, the little fellow's putting a suck—thinks it's time to sleep."

Putting a suck, lest you should think otherwise, meant sucking his thumb.

WALRUS in *Daily News.*

At Polonnaruwa

A MYNAH standing in a rock flew back to a nearby tree, circled around it and went to nest. The chirping of insects was heard and buffaloes on the border of the lake took shelter near the trees.

At 8.15, after the cloud obscured eclipse and the darkness of night, light swept across the earth like a sudden dawn. Then a cock crowed.

Daily News.

i

Egg and Eclipse

A HEN in Aluthmawatha is said to have laid a black egg during the totality of the eclipse. She had laid a normal egg the previous day.

ii

HERE is another story of an egg that was laid during the eclipse. As the picture shows, the egg carries a clear impression of the sun, as in an embossing. The " rays " emanating from th ring are deep. Proud layer of egg, I am told, is an R.I.R. hen which belongs to a resident of Nawalapitiya, Mr. M. L. Jamaldeen.

Darkness at Dawn

To the watchers in the shining street under
The drizzle it was a dawn filled with bird-song,
Like any other. Crane and heron the rice-fields
Stalked, as if they would the light prolong.
Capricious rain-clouds raced towards the sun,
And the watching world waited . . . Then darkness came
Like smooth grey velvet on us unawares,
Wrapping us from the sudden cold. The same
Fields shimmered haz y in the timeless dark.
The wind had dropped, the startled birds had gone.
The blue moon cast a shadow on the earth
And a single star was over the moon's horn.
Then unexpected bird-song, and light set free,
And a child's voice raised in incredulity.

ALFREDA DE SILVA.

ELEPHANTS

Elephants for Ploughing

I WAS very interested in your communicated article from India on the elephant being captured, tamed and used in ploughing, with such noted success. So much so that I went round to our Zoo and saw Major Weinman with a view to discovering whether he thought the same thing can be done in Ceylon.

Major Weinman told me he would welcome such a scheme here as, with the colonization of our dry zone going on apace, there were cases where herds of elephants were now isolated and were doomed to certain extinction very

soon unless they were captured, tamed and put to work, and so saved.

I learnt that there is a dearth of good tamed elephants capable of work and that if the powers that be would take the necessary action, he could capture numbers of these doomed herds, train the bulls for work and keep the cows for exchange with other countries.

A most sane suggestion, as you will agree. It does appear criminal for us to ignore the position which is causing the destruction of our finest asset, our *Elephas maximas*.

Steps taken quickly now will ensure the survival, for instance, of that herd of about 40 elephants cornered in the Bingiriya area. Two were caught for the Zoo and these two have marks of the shooting they have been subjected to.

It would be a very wonderful gesture in the right direction for Buddha Jayanti Year if concerted action by all authorities concerned saved for posterity a hundred elephants from the certain and definite death that awaits them around the corner.

It would be an unforgettable blot on our escutcheon as Ceylonese if we sat around and smirked, while noble animals were going to their doom daily in twos and threes.

Is it impossible to arouse official and public sympathy sufficient to save them? If the answer is in the affirmative, then we as Ceylonese are a smug, self-satisfied lot and to hell with all the boundless gifts Nature has bestowed on us. Which we do not deserve.

DOUGLAS RAFFEL.

Observer.

Tragedy at Ruan Eliya

IN the Sunday "Observer" (4.9.55) was the picture of a four-year-old tusker whose capture we were told "was chicken feed to the tough pannikyan, Pakeer Mohamadu." All honour to him for his expertness; and also to Major A. N. Weinman whose understanding and care of captured elephants have saved many young animals that would otherwise have died.

But what must distress all those who have a concern for the future of our wild elephants is that in a thousand acre pocket belonging to an estate-owner at Ruan Eliya, there is said to be an isolated herd with no means of egress whatever for lack of a forest corridor to vaster jungles.

Some of these animals have been killed, five have been captured and most of the others have gunshot injuries inflicted by villagers whose crops they have raided.

We may take it that what is left of this herd (some 30 animals I believe) are doomed to death or capture; of the two alternatives the latter would, of course, be preferable. Licences to capture elephants should not be issued to private individuals but to a single authority—the Zoo or Wild Life Department.

In a letter to the "Observer," Mr. Douglas Raffel suggests that "the powers that be" should take the necessary action to have numbers of these doomed herds captured (quite rightly provided they are really doomed); the bulls being trained for work and the cows being used for exchange with other countries.

This, however, is no solution to our problem of perpetuating elephants in Ceylon; for it is only in their wild or semi-wild state that elephants breed. Only very exceptionally do captured elephants give birth to young.

So that, taking the long-term view, capturing elephants is tantamount to killing them; for with their death they leave none to succeed them.

In the Sunday "Observer" above referred to, we are also told of another wild herd of 45 elephants "still at large in the Adippola area" and that this herd too will be captured when the Katubedda scheme sponsored by government is completed."

Heaven forbid! otherwise so it will go on till not an elephant will be left in the Island.

Surely, it is not too much to expect that, before this and similar projects are launched,

Government will take steps—profiting by the tragedy of the Ruan Eliya herd—to ensure that jungle belts are left to enable the animals to vacate the area when they find themselves threatened with agricultural encirclement.

This would imply that a licence will only be issued in special circumstances—such as to enable the Dehiwela Zoo to make exchanges with Zoos abroad and also, I should think, for capture of elephants trapped in areas where

Morning Times

A baby elephant after capture.

I would once more suggest the appointment of a Board (composed of the warden, agricultural and forest officers) to advise government how best to meet the *ad hoc* requirements, regarding passage ways for elephants and other wild life, when colonisation schemes are being planned in various parts of the Island.

R. L. SPITTEL.

Observer.

More Elephants Die than are Born

THANKS to the agitation of the Game and Fauna Protection Society (now Wild Life Protection Society) the issue of licences, in the ordinary course, for the capture of wild elephants is banned for three years from 1954. land development, village expansion and chena cultivation have proceeded in such a way as to cause " pocketting.

For the last fifteen years or more the rate of depletion of the wild elephant population of Ceylon has exceeded the normal rate of increase. That is to say, more elephants have been killed or captured or have died of natural causes than have been born. In the circumstances one wonders why the ban had not been introduced earlier and for a longer period, particularly when information appears to indicate that the rate of decrease, in the last few years at least, has been twice that of the increase.

In his administration report for 1952, the Warden of the Department of Wild Life summed up the present status of the elephant, appropriately, thus—" The Ceylon elephant is now a greater asset than it ever was and the

present problem is not how to make the most money out of it but how to preserve it in its own land for posterity."

A. C. D.

Daily News.

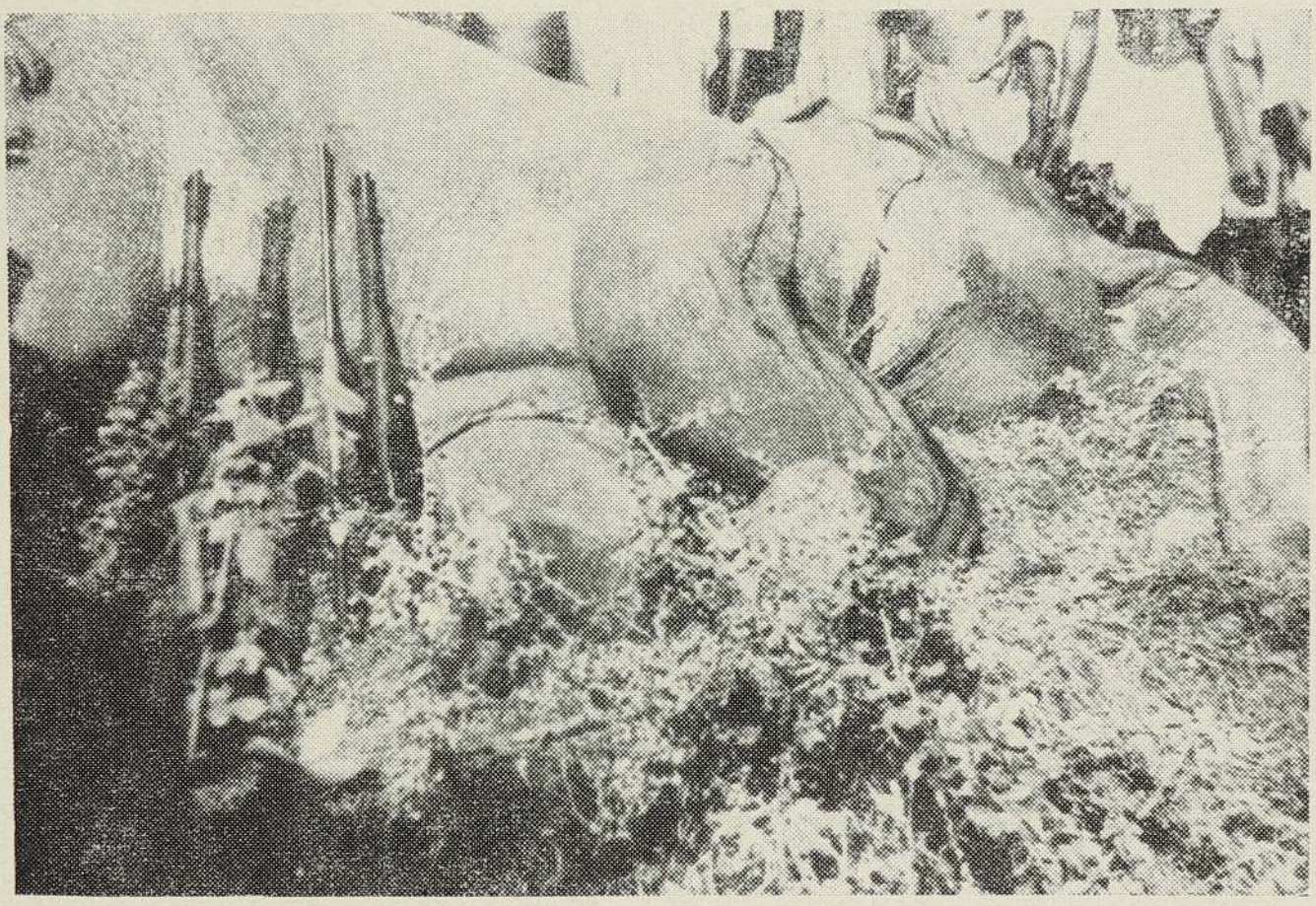
Fusillade at Kantalai

WHILE pseudo-nationalists are busy over their plans to alter the names of places and possibly re-write history itself to satisfy their bloated ego, a tragedy is taking place for want of sufficient enthusiasm in the right direction. I refer to the continuing destruction of that animal which, though dumb, has more claims to being national than most gesticulating fanatics—the elephant.

Last week, a nine-foot elephant fell to a fusillade of rifle fire at Kantalai. The animal is said to have been terrorising people of that area and its destruction was, perhaps, an unavoidable climax ; what is deplorable is that a situation should have been allowed to develop making the animal's destruction necessary.

A fact which stares us in the face is that the elephant population is a dwindling asset and it has been dwindling for many years. Unless something is done, and done quickly, to stop this waste, the melancholy day will come in the lifetime of not a few of us when the only elephants we have will be the ones in the Zoo.

One way of constructing the required fence is by keeping our National Reserves inviolate. Over a year ago, the Minister of Justice, Senator E. B. Wikramanayake, appointed four persons, consisting of the late Mr. A. C. Tutein-Nolthe-



Morning Times

This wild elephant which "terrorised" the Kantalai area recently was shot dead by the Sub-Inspector of the Trincomalee Police.

nius, Major Aubrey Weinman, Mr. G. C. Beaumont and Mr. Sam Elapata to draft a plan for the setting up of an organisation in Ceylon analogous to the National Trustees in the United Kingdom to preserve our game reserves and parks.

This is a matter where time is the essence. We must save our wild life while there is anything yet worth saving. But we are satisfied with only having appointed a team and letting the matter rest there without pursuing it further, the future for wild life in the Island is very bleak indeed.

From the dim dawn of history, elephants have occupied a proud place in the life of the country. What would our magnificent peraheras, which are acknowledged to put even the London Lord Mayor's procession in the shade, be without the elephant to lend them their stateliness and majesty? Indeed, with the exit of the elephant Ceylon will lose much of the glamour and colour that surround her.

Unless the net loss of elephants is prevented, Ceylon will become a byword among the nations of the world for wasteful improvidence and crass lack of genuine culture in spite of all the lip service to our national heritage paid on public platforms.

SPECTATOR in *Morning Times*.

Shooting of Cow Elephant

IT was with feelings of indignation and disgust that I read in the "Sunday Times" of July 17th, the account of the shooting and sorely wounding of a cow elephant attended by her little one.

This is an absolute and cruel outrage. Who was Suwaris' companion who fired at the poor unfortunate mother and had he a licence to shoot elephants but surely, not to shoot she-elephants? But anything and everything is possible and allowed in free Sri Lanka nowadays.

This incident is a shameful disgrace and the man responsible for shooting at this unfortunate she-elephant, no matter who he happens to be, should be heavily fined and his gun licence taken away from him.

What is the good of our babbling hypocritically about ahimsa and maitriya when such cruel outrages are allowed to be committed and no notice taken of them?

T. W. H.

"Must"

MR. RATWATTE states that "elephants do not get into "must" till they are about 18 years of age however healthy they may be.

The Ratnapura district is rich in men with experience of elephants. Sam Elapate Dissawe is considered the best authority on elephants in the Island today. I had the opportunity of discussing this matter with him as well as with "elephant keepers" counting over 30 years' experience. They were definite that "must" could not be ruled out even though the Zoo tusker is 12 or 13 years' old.

The reason being that the Zoo elephants are well fed on a mixed diet. They are well cared for and sheltered from the sun and rain. Naturally they attain perfect fitness and condition.

The privately-owned elephant is fed on jak leaves and kitul. He is not sheltered from sun and rain and is worked hard.

E. BANDARA.

Times.

I HAVE read with interest your correspondent, Mr. E. Bandara's letter about the Zoo tusker in the "Times of Ceylon" of July 11th.

I too am an owner of two huge tuskers and a few other elephants and I would point out from my experience that elephants do not get into the condition of "must" till they are about 18 years however healthy they may be.

I believe the tusker at the Zoo is only 12 years and I think "must" is definitely not possible.

Anyhow, we are grateful to Mr. Bandara for his valuable advice regarding the " must " of elephants, and wish to offer him my services to reform a bullied tusker.

S. L. RATWATTE.

Times.

The Buffalo Turned Out to be an Elephant

YOUNG Pinhamy (12) had taken his father's dinner to the watch hut in a maize (iringu), at about 8 o'clock one rainy night. His father was not there, nor was the lantern which normally hung outside the watch-hut. A large buffalo appeared to be feasting on the maize, ten yards away. Pinhamy took a stick, crept up to the animal in the dark and struck two or three blows on the back of the animal, shouting, " hooi, hooi."

It was only when he saw the animal breaking through the jungle fence that he realised that it was a young elephant.

When he called out to his father he heard a groan, from a patch of tree stumps, and on going there found him lying injured. He helped him to the watch-hut and went to the village for help.

The father too had gone up to the elephant with the lantern, mistaking it for a large buffalo among the tall maize plants and the elephant had struck at him. He had not received the full force of the trunk and lived to tell the tale.

Young heroes such as Pinhamy more often than not live unsung and unheard in the N.C.P. villages.

Grabbed Elephant's Trunk and Lived !

HAWADIYA (35), a cultivator of Siyambalagahagama in Wilachchiya narrowly escaped death when a she-elephant with calf charged him in thick jungle.

Panic-stricken, he recited a charm, but his memory failed him and the charm was ineffective.

Much as a drowning man clutches at a straw. he clutched the elephant's trunk ! And clung on for dear life.

Trumpeting loudly, the animal bolted into the jungle with him. Sometime during that never-to-be-forgotten journey he fell, but he cannot remember when or where.

Hawadiya is now recovering from his injuries at the rural hospital here.

Times.

Elephant Watching from Platform

ABOUT 150 wild elephants have come to a village midway between Tangalle and Ambalantota, including two baby tuskers. Another 50 elephants have come in from another village, and so the area has become suddenly a popular visiting place. A watching-platform has been erected by an enterprising man, whence twenty people can see the herds at water-holes.

Snips

A Swiss National Park

The plants and animals in the national park in the Lower Engadine are left entirely to natural development, so that both creative and destructive forces have free rein. The national park is not intended to be a carefully nursed game preserve and there is therefore no feeding of the animals. Hunting quarters have raised the question whether feeding stuffs should not be provided at least for the red deer. However, not only do the basic regulations of the national park forbid such a step, but there are also other reasons against it. During winter the park is subject to avalanches. Ought the deer which, every winter, following their sure instincts leave the park and its danger areas, to be tied there by the provision of feeding

places? Would not any such places, with the great numbers of animals assembling there, provide breeding grounds for disease? And where are the places to which food could be taken? In winter large areas of the park are inaccessible.

Just as many foresters find the "confusion" of untended woodlands and the unused fallen timber in the park difficult to understand, so huntsmen may not like to think of the numbers of game which perish without being used. But there should not be an exaggerated idea of the number of dead game in the park. Of course, in winters of heavy snowfall many animals fall victims to avalanches, just as they do in other areas rich in game. On the other hand, there has so far been no confirmation of the fear that here, where veterinary game control and other measures taken by man are entirely absent, there would be devastating outbreaks of game diseases. Since its establishment the national park has been spared major animal epidemics. Only in isolated cases have dead game been found to have game diseases, such as strongylosis and nasal fly infestation.

Scientific research in the park covers its entire animal and plant life. Whilst zoologists have already advanced a long way in the study of small fauna, especially butterflies and other insects, they have still much to do in relation to birds and mammals. Large mammals and birds can only be observed in the open; they cannot be handled like beetles and ants. In addition, continued observation of the park all the year round is extremely desirable in order to study the natural life of the animals. The National Park Scientific Commission also wishes to devote itself to a thorough study of the interesting problems which relate to the habitat, the distribution, the development and the way of life of the animals in the national parks.

DR. G. N. ZIMMERLI in *Oryx*.

Indian Naturalists Appeal: Save Our Fauna

Indian naturalists have appealed to the Government to save 12 Indian wild animals and birds from extinction.

A meeting of the National Wild Life Board in Calcutta has recommended that national parks and game sanctuaries should be set up in various States under the next five-year plan to preserve the country's rapidly dwindling wild life.

It asked the Government to declare nine animals as "protected." They are the Indian lion, the one-horned rhinoceros, the snow-leopard, the cheetah, the wild ass, the Kashmir stag, the musk deer, the brow-antlered deer and the pigmy hog.

It also recommended protection for three birds, the great Indian bustard, the pink-headed duck and the white-winged wood duck.

The shrinking of jungle areas and the depredations of sportsmen have led to an alarming decrease in wild birds and animals in India over the last 50 years.

Naturalists blame the clearing of land, opening up of roads and railways following the growth in population and the indiscriminate killing of birds and animals by tribal people with bows, arrows and catapults, as well as by sportsmen armed with guns.

Unless rapid action is taken, Indian naturalists fear that some of India's most famous and rare animal species may soon be as extinct as the dodo.

The Indian lion, described by the Wild Life Board as "an animal of national importance requiring rigorous protection," survives only in the Gir forest of Saurastra. There are believed to be only about 250 left and they are already carefully looked after in the Gir Sanctuary where no hunting is allowed.

As the Indian National Emblem, the lion naturally gets priority protection from extinction.

Elephants and tigers are still plentiful but, in Northern Bengal, the number of deer and wild pig has become so reduced that, according to the Bengal Deputy Conservator of Forests, the tiger has come to depend for his food on

domestic cattle and his depredations are increasing from year to year.

The Indian Wild Life Board, which consists of zoologists, botanists and naturalists presided over by the Inspector-General of Forests, Mr. C. R. Ranganathan, recommended at its Calcutta meeting that legislation should be passed by state governments to save India's rich and varied wild life.

Daily News.

Eagle-hunting from Aeroplanes

Mr. Casey and his wife, who are both qualified air pilots, set off in their own small aircraft to shoot eagles and proudly announced that they had managed to shoot two in the air.

Then the fuss started. Letters in the London *Times* and articles in Australian newspapers declared that the wedge-tailed eagles should be preserved and not shot. The shooting of eagles from aeroplanes was described as the sporting equivalent of killing sitting birds. The question of civil aviation regulations was raised.

Mr. Casey professes himself—unmoved by all the bother. He says that the area concerned is a sheep-raising district. and that eagles are believed to destroy something like one lamb a day each during the three months in which the lambs are small and vulnerable. This means, he claims, that each eagle causes a loss of about £200 worth of lambs annually.

He says also that in the last two years 265 eagles have been shot in the area, involving a saving of about £20,000 worth of lambs a year. The eagle is an acknowledged economic pest in the area and the Queensland Government pays a bounty for its destruction.

Naturalist critics have not accepted this argument. They say that even if the eagles do each take a lamb a day—which is doubted—they also take more than 5,000 rabbits each year.

This destruction of rabbits is estimated in its turn to represent the saving of pasture for between 500 to 1,000 sheep a year giving a credit balance, despite the killing of lambs, of between £900 and £1,500 a year per eagle. They point out also that in Tasmania the wedge-tailed eagle is protected and people who kill eagles are fined.

Mr. Casey was reported to have described some exciting flights in pursuit of the eagles, including some remarkably low flying. Civil planes, however, are forbidden by regulation to fly at less than 500 feet, except when taking off on landing. They are not allowed to have a door open or removed. The carrying of fire-arms in an aircraft is forbidden.

The public generally seems to feel that Mr. Casey is a bit too elderly for such juvenile escapades.

Daily News.

Wild Animals in Captivity

Man is now exterminating the animal world by the mere speed of his own multiplication ; there is simply not room for large or rare animals as well as human beings. There is probably not a jungle elephant in Africa, according to **Dr. Hediger,** which has not been shot at. Zoos and National Parks therefore become increasingly important in so far as animals can breed in them.

We must not think of zoos as bad places—except, of course, when they are bad zoos, where the animals are not given enough to do or where we do not understand enough about them to provide rubbing posts, concrete termitaries, urine baths, wooden play blocks and various other devices agreeable to their temperament. Animals in captivity are liberated from disease and from the cycle of preying or being preyed upon. This security sets free a considerable amount of energy which must be prevented from decaying into boredom.

The home is immensely important ; most wild animals have homes and hate leaving them ; they like to use the same tracks and to be at

the same place at the same time, for they are creatures of habit. And besides their obsession with routine and their eternal vigilance against man, their other regular preoccupation is with their position in society.

The first animals to be kept in captivity were the giant sloths of prehistoric Patagonia, the last is the golden hamster, of which the whole population derives from a female and twelve young caught at Aleppo in 1930 ; two pairs only began the breed in England.

The newest discovery in acclimatisation comes from the enormous aquarium at Marineland, Florida—a tame porpoise. This proves the truth of the old Greek legend of Arion and the dolphin. For a young adult porpoise named " Flippy ," handed over to a lion-tamer, has proved one of the most intelligent pets in the world. " The confidence of this legendary sea-creature, its exaggerated human eyes, its strange breathing hole, the torpedo-shape and colour of its body, the completely smooth and waxy texture of its body and not least its four impressive rows of equally sharp teeth in its beak-like mouth, made the deepest impression on me. So new, strange and extremely weird was this creature, that one was tempted to consider it as some kind of bewitched being." Underwater fishing may lead to the domestication of further unexpected pets, but few have the porpoise's unremitting activity and well-developed brain.

Asian Lions to have New Home

The Indian lions of the Gir forest, the only preserve for lions in Asia, are to have a second home in the Tikamgarh forest, in the State of Vindhya Pradesh, to save the species from extinction.

The Government of Saurashtra have banned the shooting of lions and the order is being vigorously enforced.

There are about 300 lions in the Gir forest, according to the latest " lion-census " taken early this year. Wild life experts maintain that the ban on shooting of lions is not enough. To them, this seems to be a necessary but a negative step. Hence, their plea for finding out an alternate region in India where they can thrive and multiply.

Wild life experts feel that the mere protection of " Gir " lions from the guns of hunters would not prevent the lions from becoming extinct. The board of wild life early this year warned that unless the number of " Gir " lions was multiplied by establishing for them new homes in congenial areas, they would slowly die out.

They maintain that the lion was originally an Asian animal and that, with the march of time, it had migrated through the Arabian hinterland into the vast continent of Africa, where it now thrives in the humid jungles of Ethiopia, the Belgian Congo, in East Africa and in the Union of South Africa, in conditions varying from great humid heat to extreme, dry cold.

Tree-top Hotel

"Tree-Top Hotel" the romantic lodge 40 feet above ground where Queen Elizabeth and the Duke of Edinburgh were staying when King George VI died, was burnt down—apparently by Mau Mau terrorists.

The four-roomed hotel was built in the branches of a giant fig tree and from its platform the Queen (then Princess Elizabeth) watched wild beasts of the jungle come to drink at the water-hole below, while artificial moonlight played about the scene.

Africa

Africa has always walked in my mind proudly upright, an African giant among the other continents, toes well dug into the final ocean of one hemisphere, rising to its full height in the greying skies of the other ; head and shoulders, broad, square and enduring, making light of the bagful of blue Mediterranean slung on its back as it marches patiently through time.

The metal sunlight and glittering sun-beetle sound was rising up everywhere in the bush around us like flame of virgin fire, a flickering, ecstatic messianic insects' Hosannah, drunk with praise for this their far blue heaven.

LAURENS VAN DER POST.

"African Humour"

The following five short stories appeared in the 1952 Annual Report of the Kenya Game Department; they may amuse readers. The first two were submitted by Mr. G. A. G. Adamson, Game Ranger, Northern Province. The first will be of special interest to those who affirm, either rightly or wrongly, that elephants always cover over any dead or evil smelling object.

" An aged Turkana woman and her son were making their way towards my scouts' lines from a Somali village some three miles off. The son stopped, telling his mother to carry on along the path and he would catch her up in a few minutes. The old woman was half blind and in the gathering darkness took the wrong path. After going some way, she realized that she was lost. In the careless manner of her kind she made herself comfortable at the foot of a tree and decided to spend the night as best she might. Her son hurried on to the scouts' lines expecting to find his mother. A search was made but, owing to the darkness, it was unavailing. The old woman under the tree fell asleep. Late at night she was aroused to find herself surrounded by elephants. A young bull stood over her and felt her with his trunk ; she told it in Turkana to " get out." It backed away, and again approached and felt her over : again she told it to be " be gone." It then tore off thorny branches and carefully covered the old woman under a great pile until she was completely imprisoned. Then, to add insult to injury, urinated over her. An elderly cow, one of the spectators, shocked at such ungentlemanly behaviour, chased the bull and the others away. While the bull was engaged in covering up the woman, the rest of the elephants gathered around in a ring and created a tremendous uproar. Next morning a Turkana herding goats saw the pile of thorns and, hearing cries for help, released the old woman who was little the worst for her frightening experience. It is well known among natives that elephants will cover over the body of a human they have killed. Perhaps in this case the woman was so old that she smelled dead to the elephants !"

Mr. Adamsons' second story relates how " a certain officer of a somewhat nervous disposition, whose duties compelled him, much against his inclinations, to camp near an elephant highway, one night was startled out of his fitful slumbers by the rumblings of elephants close by. He leapt out of bed, clutched his rifle in one hand and torch in the other, and rushed out of his tent. The exertion proved too much for his pyjama strings and he suddenly found himself hobbled. In overcoming this difficulty he dropped the rifle. Picking up the rifle, the pyjamas once more settled around his ankles. From this disadvantageous position he fired shots over the elephants' heads. It is possible that his aim was not of the best ! Two elephants were found dead not far off, but by the time I inspected the carcasses they were too decayed to be able to tell the cause of death."

There is possibly no other animal in Africa that has been delineated with such a variety of adjectives as the Rhino, and the following three stories come from Capt. D. R. P. Zaphiro, Game Ranger, Kajiado ; all of which relate to this interesting animal.

" A Masai rhino, on a visit to Tanganyika wandered, in the middle of the morning, into a crowded village near the border. Losing his head at the screams of frightened women he bolted along a path and ended up inside a vacant house. The door was promptly shut on him by a quick-witted Wachagga and later he was speared to death as the only solution to a complete impasse. The resourceful owner of the house then opened the door and plied a brisk trade for the next few days."

The second story relates how " a cow rhino

with a two-day-old calf gored a Masai at Salengai. The victim, who recovered, stated that 'all women' were notably of uncertain temper after the pangs of childbirth."

Capt. Zaphiros' last story runs as follows—"A young Moran (a Masai warrior) decided to see a rhino off which was daily in the habit of approaching his goats in a very menacing manner. He in turn was chased by the infuriated animal and tossed into the air. He descended on the back of the rhino and was carried several hundred yards before falling off. Badly shaken, though unhurt, he returned to his boma as a hero. His ride rapidly achieved notoriety and the unmarried girls saw to it that he received the deserts reserved for bravery. Yet alas, they now speak of him wistfully but without regret. Possibly he was more damaged by his ride than he cared to admit."

A. M. M. DAVIES.

Crows Go Into Mourning

When a flock of crows lose their leader, there is consternation among the rest of the flock.

If any other members of the flock is shot, the rest fly out of range. But if the one who appears to be their patriarch is killed, the rest exhibit what seems to be acute grief. Uttering a loud and melancholy cawing, they gather to look at the body of the dead bird.

Up to a dozen other birds can be shot without the rest seeking safety in flight. They pay no attention to birds shot subsequently; their grief is always for their dead leader. When they do fly off they keep up their melancholy cawing for hours. Thereafter, they avoid the spot.

I saw it happen at Padthaway in the south-east of S.A. and again in western Queensland. Although I dislike crows, I found it a very moving spectacle. The conduct of the rest of the flock bore every sign of acute grief.

In both cases the bird which they mourned was an old one with crooked claws and a beak corrugated like an oyster shell.

Australia. H. A. LINDSAY,

Ducks and Drakes

The wildfowl collection in St. James's Park, a daily place of pilgrimage for those Londoners whose hearts are elsewhere, is to have a new curator, Mr. H. A. Fooks.

Mr. Fooks will be responsible for the ducks in all Central London parks. He will live on the Island in St. James's, where the keeper's cottage is being rebuilt. There, he will be well placed to deal with a problem which has exercised my mind.

A white drake, possibly an Aylesbury and certainly an enterprising bird, is leaving his mark on the rising generation mothered by the wild duck. Mr. Fooks may be relied upon to guard the good name of his charges and put a stop to this deplorable situation. The proper place for this drake is the oven.

The Field.

Tea Taking Parrot

The cup of tea which "cheers but does not inebriate" has attracted an unusual admirer. A parrot, belonging to a retired police official in India, avidly takes this beverage daily. She blows on the tea every time she drinks in a mouthful. The parrot is a great believer in punctuality. She insists on having her tea promptly at 5.30 a.m. and 4.30 p.m.

Times.

An Awful Temptation

In a tobacco tin, at the top of Miller Peak in Washington State's Cascade Mountains, is a logbook and pencil. As this is one of America's more remote peaks, there are long time lapses between most of the entries—but on one page, two entries bear the same date.

The first reads : " Hunted all the way up from Blewett Pass. The only buck I saw was standing about 100 yards inside the Game Preserve. I had him in my sights. It was an awful temptation but I did not shoot." (Signed).

The entry below reads : " Awfully glad, Mr. Hunter, that you did not shoot. I was right behind you."

It is signed by the game warden.

Extraction of Bee Stings

Dr. H. M. Moir (Midlothian) writse: The sting should be gently removed. I suggest that the mode of removal is of the first importance. Most people grasp the projecting sting with the forefinger and thumb. This squeezes more venom down the shaft of the sting. The correct method is to scrape the sting off with a knife.

Dr. C. Allan Birch (Enfield) writes : The advice that the sting be gently removed is not explicit enough. Promptness is more important. The " sting " consists of the barb and poison sac and also muscles which go on contracting reflexly for a long time. Hence the dose of poison increases with time. There is no doubt that a sting quickly removed causes much less trouble than one left for some seconds. Gentleness suggests use of the finger and thumb, but this would squeeze out more poison. It is best to scrape out the sting with the finger-nail or wipe it out with a handkerchief.

British Medical Journal.

Brave Bulls

(Points to remember when you are confronted by a wild buffalo—if you feel like it !)

No one can say, on seeing a fighting bull in the corrals, whether that bull will be brave in the ring although, usually, the quieter the bull is, the less nervous he seems, the calmer he is, the more chance that he will turn out brave. The reason for this is that the braver he is, usually, the more confident he is and the less he bluffs. All supposed exterior signs of danger that a bull gives, such as pawing the ground, threatening with his horns, or bellowing are forms of bluffing. They are warnings given in order that combat may be avoided if possible. The truly brave bull gives no warning before he charges except the fixing of his eye on his enemy, the raising of the crest of muscle in his neck, the twitching of an ear, and, as he charges, the lifting of his tail. A completely brave bull, if he is in perfect condition, will never open his mouth, will not even let his tongue out, during the course of the entire fight and, at the finish, with the sword in him, will come toward the man while his legs support him, his mouth tight shut to keep the blood in.

A bull when he is about to charge, or when he is angry, twitches one, or occasionally, both ears. The ear that he twitches is usually on the side of the horn that he uses for preference.

Ernest Hemingway

A National Trust for Ceylon

By R. S. V. POULIER

MANY countries had found it necessary to create a National Trust. This is a wide term which in some countries embraces wild life areas in the form of strict Natural Reserves, National Parks, Intermediate Zones and Sanctuaries ; in other countries, the National Trusts have concentrated their attention on beauty spots, landscapes, seascapes, old buildings, green belts—both along roads and round towns. They call for contributions and accept bequests.

In Ceylon a combination of all these is most suitable, omitting only those items which are already covered by the Archaeological Department.

A Sub-Committee of the General Committee of the Wild Life Protection Society of Ceylon began the spade work of the investigations necessary for the formation of a National Trust and examined the question of funds and personnel.

The concensus of opinion was that in the meantime we should join other societies with similar objects which will interest themselves in the idea of a National Trust for Ceylon. Representatives of the Wlid Life Protection Society, the Ceylon Geographical Society and the Ceylon Natural History Society met together and decided to plan the details of a symposium to be held in the first half of June, 1956, on the subject of a National Trust for Ceylon under the joint auspices of the three societies. The title of the symposium is to be :—

"A National Trust for Ceylon
An Urgent Necessity."

Three speakers will probably introduce the subject and it is hoped that thereafter the official views (or at least the personal views) of the heads of some Government departments will be available ; persons who have beforehand intimated their desire to contribute to the discussion can then make observations; and if time permits any members of the audience who wish to speak can express their views. The main intention in finding speakers beforehand and in restricting the time of speeches to avoid desultory talk, is that the Chairman should have time to "sum up" and prepare a forceful recommendation to be placed before Government.

Benefiting from the experience gained of the symposium on the protection of the elephant it is hoped that the principal speakers can make their contributions available before the date of the symposium and prepare synopses of their comments for publication, as propaganda and publicity are essential if active public opinion is to be awakened.

It is intended to plan a definite follow-up procedure and to exhibit films on the National Trust Concept in the United Kingdom, United States and other countries.

Will those who desire to contribute to the discussion kindly forward their names to the Hony. Secretary of the Society as early as possible.

BOOK REVIEW

A GUIDE TO THE BIRDS OF CEYLON

By **G. M. Henry,** Published by the Oxford University-Press. Price Rs. 25.

THIS is the best book for the beginner so far published on the Birds of Ceylon; it is admirably illustrated by the Author with 30 Half-Tone plates of which 27 are coloured and 124 black-and-white drawings. The coloured plates have been beautifully reproduced and cannot but help any bird watcher to identify any of the species so ably depicted. It will give hope to any bird watcher who has been struggling to know the Birds of Ceylon but has been suffering from the lack of good illustrations. The Author in his introduction gives some very sound advice to would-be bird watchers, an explanation of the scientific names adopted, and, he also points out this book is not a work on classification and nomenclature but a help towards 'enjoying the birds.' It contains a wealth of information based on painstaken field study which is the foundation of all scientific studies. Bird Watchers in Ceylon have been sorely handicapped by the lack of a reasonably priced Bird Book which contains easily recognised illustrations ; at times they may have been frustrated to the point of giving up their new sought hobby but now, their troubles should be over with the inclusion of this admirable book in their library.

C. E. N.

To the busy man or woman

The IMPERIAL PORTABLE

brings all the time-saving features and refinements of a bigger machine.

These new models represent the finest value ever offered in Portable Typewriters. The many outstanding features are designed to give complete satisfaction and trouble-free service over many years.

We shall be pleased to give you a demonstration.

Good Companion No. 1.

A fine Portable machine possessing a four bank keyboard with 88 characters, colour change and stencil switch and automatic ribbon reverse and many other attractive features giving you a typewriter with all the essential requirements for many years of service.

Rs. 345/-

Good Companion No. 3.

De Luxe

This machine is fitted with a full length two colour ribbon with automatic reverse. Colour change and stencil lever and ribbon reverse lever, a 92 character keyboard, margin release, adjustable touch and inbuilt tabulator giving you all the features possessed only by a standard machine. New low price.

Rs. 395/-

You can purchase your new Portables by easy payment terms.

Details on application.

Sole Agents:— **CARGILLS** (Ceylon) Ltd. Colombo & Branches.

Our Sub-Agents who are equipped to give you after sales service, Ceylon Jewellers, Trincomalee ; Autos Ltd., Jaffna; Galle Musical Stores, Galle.

An Ideal Gift

A GUIDE TO THE

BIRDS OF CEYLON

ILLUSTRATED BY THE AUTHOR

G. M. HENRY

With 30 Half-tone Plates of which 27 are coloured and 124 Black and White drawings.

Rs. 25-00

Postage Cts. 75.

H. W.
CAVE & CO., LTD.
COLOMBO.

FOR THE WILD LIFE ENTHUSIAST !!

BINOCULARS BY : LEITZ / WETZLAR & ZEISS / JENA

from Rs. 325/- to Rs. 750/-

Complete with Case and Strap

Magnifications 6 × 30 to 15 × 60

● ● ●

CINE CAMERAS 8 MM & 16 MM

PAILLARD BOLEX from Rs. 445/- to Rs. 2675/-

Either one lens, two lens or three lens Turret Models.

● ● ●

STILL CAMERAS :— The World's Best

from Rs. 32/- upwards to suit all—

35 MM to 4″ × 5″

MAKE YOUR CHOICE FROM THE WORLD'S FINEST RANGE !

Agfa, Rolleiflex & Rolleicord, Leica,
Exacta — Robot — Linhof, Hasselblad
Foca — Flash Equipment — Telephoto &
Wide Angle lenses—Tripods—Filters, etc.

Ceylon's Premier Photo Store

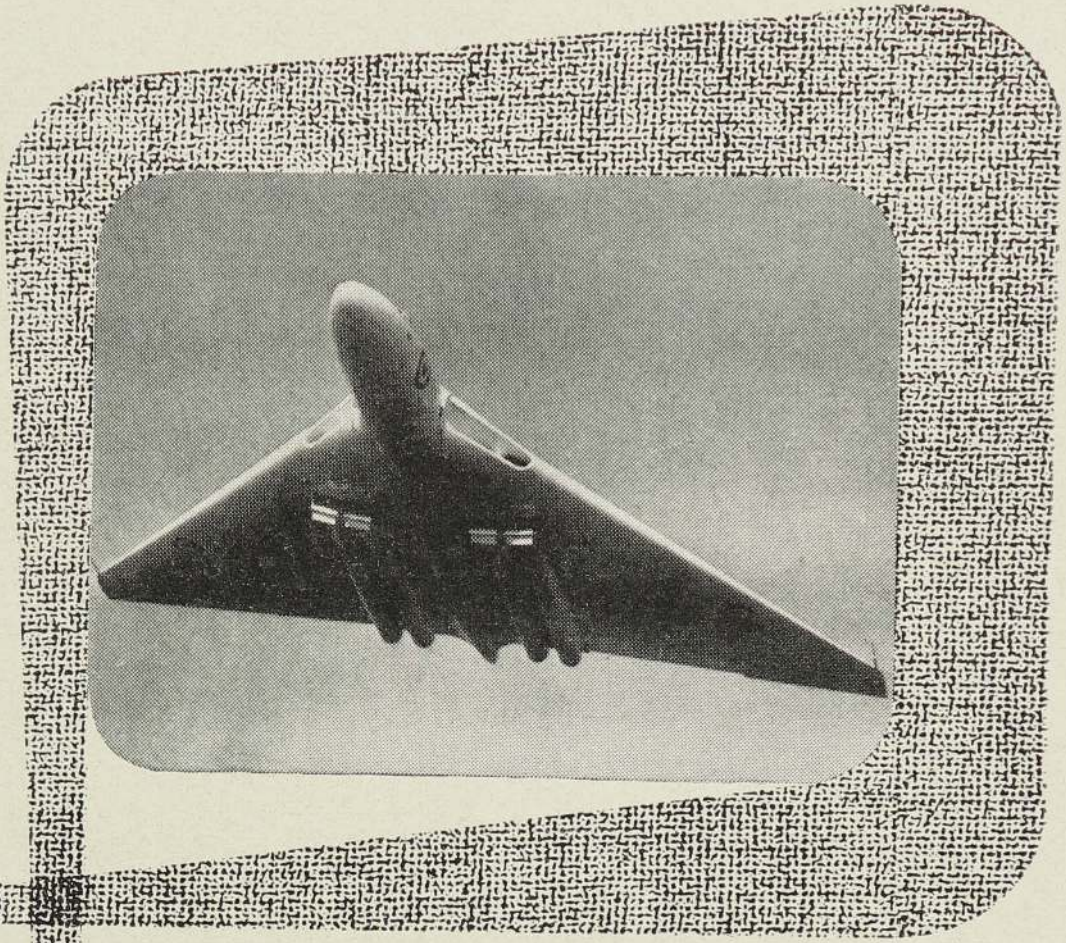
Photo—Cinex Limited.

'Phone : 2577

GALLE FACE COURT 2, COLOMBO 3.

Powered Flight: the Story of the Century

A record of the development of aviation and its influence in the world since the first flight of the Wright brothers in 1903.



Mille Miglia 1953

An account of the famous international road race held annually in Italy

Project 074

The use of radio-active piston rings in measuring engine wear

SHELL FILMS

The Shell Film Unit was founded in 1933. Its documentary films are known throughout the world; more than 2,000 copies of current productions are annually distributed to foreign countries; the majority are revoiced in up to a dozen languages.

The Shell Film Library now contains 120 films covering not only every aspect of the oil industry but also many subjects directly or indirectly related to it. *Above and left: Three recent productions.*

SHELL

Shell films are loaned free of charge to Schools, Training Colleges, Business Centres, Scientific Societies and other Institutions on application to

THE SHELL COMPANY OF CEYLON LIMITED

P. O. Box 280, COLOMBO.

LORIS

A JOURNAL OF CEYLON WILD LIFE

Index to Volume 6.

December, 1951 to December, 1954.

AUTHOR INDEX

SUBJECT INDEX

Bag that stag...

The thrills and pleasures of a hunter's life are open to you. Get your gun and other sporting equipment today from NIMRODS—Ceylon's sporting people.

NIMRODS

LIMITED

Printed at The Times of Ceylon, Ltd., for the Wild Life Protection Society of Ceylon.