

Wildlife Conservation in the State of Sabah

by

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SUMMARY

The rich flora and fauna of Sabah is partly protected by the large areas of forest and by the undeveloped state of the country, particularly the east coast. Sumatran rhinos and orang-utans are, however, threatened species, and there is a need for game and bird sanctuaries, virgin jungle reserves to preserve examples of flora, and the staff to enforce protection in these sanctuaries.

An excellent new Fauna Conservation Ordinance came into force in 1964. Some of its important features are briefly explained.

INTRODUCTION

Sabah is a land of dense, evergreen, equatorial rain forests, rugged mountains and innumerable rivers covering 29,000 square miles. The physiography of the country is dominated by the Crocker Range (4000-6000 feet), which follows the western coast line fifteen miles inland for 160 miles from Kudat in the north to the Sarawak border. The range has various spurs outlying to the east, one of which culminates in the granite massif of Mount Kinabalu (13,445 feet).

The population at the last census in 1960 was 454,000, of which about a quarter were Chinese and three fifths were made up of indigenous races. Most of this population is concentrated in the interior and west coast residencies with a density of 66 persons per square mile along the flanks and either side of the Crocker Range. In these regions extensive shifting cultivation is practiced and only the upper-most ridges are free of it.

The two east coast residencies of Tawau and Sandakan are very sparsely populated with less than 2 persons per square mile. Except around the towns of Sandakan, Lahad Datu and Tawau, this side of the country is covered by lowland dipterocarp forest with only an occasional river or timber camp to interrupt the canopy. Thus, in contrast to the poverty of wildlife on the populated west coast of Sabah, the eastern parts of the country have a rich and plentiful fauna.

FAUNA OF SABAH

The larger animals include the Sumatran or two-horned rhinoceros (*Didermoceros sumatrensis*), the orang-utan (*Simia satyrus*), the Sunda Island or grey gibbon (*Hylobates moloch*), the crab-eating macaque (*Macaca irus*), the pig-tailed macaque (*Macaca nemestrina*), the banded leaf monkey (*Presbytis femoralis*), the Sunda Island leaf monkey (*Presbytis aeygula*), the maroon leaf monkey (*Presbytis rubicundus*), the white-fronted leaf monkey (*Presbytis frontatus*), the silvered leaf monkey (*Trachypithecus pyrrhus*), the proboscis monkey (*Nasalis larvatus*), the tarsier (*Tarsius tarsier*), the Malay bear (*Helarctos malayanus*), the binturong (*Arctictis binturong*), the clouded leopard (*Felis nebulosa*), the marbled cat (*Felis marmorata*), the leopard cat (*Felis bengalensis*), the flat-headed cat (*Felis planiceps*), the scaly anteater or pangolin (*Manis javanica*), the Asiatic elephant (*Elephas maximus*), the bearded pig (*Sus barbatus*), the larger mouse deer (*Tragulus javanicus*), the smaller mouse deer (*Tragulus kanchil*), the sambur (*Cervus unicolor*), the barking deer (*Muntiacus muntjak*), and the banteng (*Bibos sondaicus*).

SUMATRAN RHINO AND ORANG-UTAN

The two animals most threatened by man are the Sumatran rhino and the orang-utan. The former has been ruthlessly hunted for many generations and is now nearly extinct. Very occasionally tracks are reported, but the last time an animal was seen by a member of the Forest Department was in 1957.

Before the war orang-utan were fairly plentiful between Sandakan and the Kinabatangan. The hunting or capture of them was prohibited under the former Wild Animals and Birds Preservation Ordinance. This did not prevent a lot of adults being killed and young animals sent to zoological parks throughout the world. The usual specious story of the mother being killed when an isolated tree was felled was difficult to refute. With the responsibility for enforcing an ineffectual ordinance split between Residents, District Officers and Forest Officers, little effective protection could be achieved until the new Fauna Conservation Ordinance came into force and the Game Branch of the Forest Department became established in 1963.

In 1928 five orang-utan were collected by F. C. Wonder within eight miles of Sandakan, and the Harvard Primate Expedition collected seven in 1937 (Davis: Bulletin of the National Museum, Singapore). Twenty seven of these apes, 14 male and 13 female, are held for studies on social behaviour and the higher mental processes at a laboratory in America. It is their intention to breed them when they reach sexual maturity. It is not known how many, if any, came from Sabah. Between 1957 and 1963 twenty orang-utan were exported officially from Sabah to zoological societies, nine to the United Kingdom, seven to Australia and four to Denmark. None have been sent since 1963, but in 1964 four were illegally captured and two were killed. So far this year six babies have been found in captivity, and there may still be one or two to come before the force of the new ordinance percolates through to all would-be hunters.

The Game Branch had to take immediate steps to prevent any further drain on the orang-utan population and decided to attack the problem on two fronts. On the one side the aim is to dissuade hunting and capture of these apes, by prosecuting every case that comes to light with the uttermost vigor, by publicizing the severe penalties involved, and by spreading propaganda about the need for the benefits to be derived from protecting these animals. On the other hand an attempt is being made to rehabilitate all captured animals back into their native haunts. No export to zoological gardens is contemplated unless an animal is found unsuited for rehabilitation.

FOREST RESERVES

The rich flora and fauna of Sabah is partly protected by the large areas of forest and by the undeveloped state of the country. Forest reserves afford full legal protection for animals and birds, and 10,500 square miles or thirty five per cent of the country has been constituted permanent forest reserve. This is a great advantage, but complacency about the security of these resources will lead to disaster. For one thing Sabah is a land of diverse races, many of whom have lived for centuries a semi-nomadic existence largely dependent on hunting. The ethics of wildlife conservation and the laws connected with it are hard for them to understand or support. They kill many animals for food, often in excess of their needs, but who can blame them for this! Again, within the productive forest reserves, vast areas of forest are being felled for timber every year. In the process the environment is changed, and the habitat may become unsuited to many animals and birds. These forests are being regenerated, but it may be ten years before a semblance of the original environment reforms.

There is thus an additional need for a game sanctuary or sanctuaries for the larger mammals, bird sanctuaries for birds with rather special habitats, virgin jungle reserves to preserve examples of the flora entirely undisturbed by man, and of course the extra staff to enforce protection in these sanctuaries. It is intended that virgin jungle reserves will be set aside within forest reserves in blocks of about 200 acres to every ten or fifteen square miles of logged forest. They also serve as holding grounds for a residual stock of smaller mammals and birds until the surrounding forest has been regenerated.

GAME SANCTUARIES

No game sanctuaries have been so far constituted. One is proposed for a remote and little explored area in the Upper Segama and there are two or three other areas which might be suitable.

BIRD SANCTUARIES

There are five such sanctuaries. The most important is approximately fifty square miles in extent and covers marshland, padi fields, small coconut plantations, village and the hills between the Tempasok and Pandasan Rivers near Kota Belud. There are a large number of buffalo and horses in the sanctuary. During the migratory season, garganey (*Anas querquedula*), tufted duck (*Aythya fuligula*), mallard (*Anas platyrhynchos*), shoveller (*Anas clypeata*) and wigeon (*Anas penelope*) have been recorded. Pin-tail snipe (*Capella stenura*), Swinhoe's snipe (*Capella megala*), American golden plover (*Pluvialis dominica*), little ringed plover (*Charadrius dubius*), common sand piper (*Tringa hypoleucos*), collared pratincole (*Glareola pratincola*), yellow wagtail (*Motacilla flava*), are found in large numbers.

It is interesting to note that the only Malaysian record of the black coot (*Fulica atra*) was made by Burgess in this sanctuary, and it was also here that the pied barrier (*Circus melanoleucus*) was for the first time recorded in Sabah, by Medway, in February, 1964. The sanctuary can be reached by Land Rover from Kota Belud where there is a good rest house, and the area is well worth a visit by naturalists. Bird ringing was attempted by Medway during November, 1964, but had to be abandoned as the traps were continually broken by buffalo and horses.

VIRGIN JUNGLE RESERVES

Forty of these have been so far set aside covering about 14,000 acres. Included in this category are one or two small forest reserves on hills in the middle of alienated land.

REHABILITATION CENTER FOR ANIMALS

All protected animals and birds which have been illegally captured are forfeited by order of the court and handed over to the Chief Game Warden. With a view to returning the animals back to the wild, a small scale experiment is being carried out in a forest reserve of 10,000 acres on the East Coast. Nine young orang-utan are kept there and given all the freedom they require. They are encouraged to climb, make nests and move about freely in the forest. With the provision of their natural surroundings it is hoped to stimulate their natural instincts and their incentive to feed, roam and to survive on their own. Most of the orang-utan are very young, and it will take several years of patient handling before they can be introduced into the wild. If the experiment proves a success the young apes will be released in batches in some remote forest reserve, preferably a game park if one is constituted on the East Coast. If they do not learn to survive on their own they can form a semi-wild breeding colony. Other animals such as gibbons, bears and wild birds are also treated in a similar manner. It will be some time before any results are obtained.

LEGISLATION

The Fauna Conservation Ordinance, 1963, (Act, No. 11 of 1963) came into force on 15th July, 1964. It repealed the Turtle Preservation Ordinance, and the Wild Animals and Birds Preservation Ordinance. The new ordinance is administered by the Forest Department. The Conservator of Forests is the Chief Game Warden and other officers of the department have been appointed Deputy Game Wardens, Assistant Game Wardens and Game Rangers. Some of the important features of the ordinance may be briefly explained here.

1. Protected Animals

The Sumatran rhinoceros, dugong, tarsier, orang-utan, gibbon and proboscis monkey are completely protected. Very severe penalties are prescribed for hunting them, the maximum penalty being five years imprisonment and a fine of \$5, 000.00.

2. Game Animals

Elephant, clouded leopard, banteng and Malay bear are game animals and can be hunted under a game license issued by a Game Warden.

License fees are as follows:

Elephant	\$100.00	per head
Clouded Leopard	40.00	" "
Banteng	50.00	" "
Malay Bear	20.00	" "

No game license may authorise the hunting of female elephants.

Barking deer, mouse deer, and sambur cannot be hunted in Game Sanctuaries and Forest Reserves, but a Game Warden may issue Forest Game Licenses to hunt deer in Forest Reserves. At present no Forest Game licenses are issued to shoot animals or birds in Forest Reserves.

3. Birds

The Act affords protection to several species of birds and a comprehensive list is attached to this paper. (Annex 1).

Although the Megapode enjoys protection its eggs can be taken for egg collection. The maximum penalty for hunting a protected bird is imprisonment for 3 months and a fine of \$500.00.

4. Trophies

Trophies can only be retained when they are taken from animals killed under a license, or when a certificate of ownership has been issued by a Game Officer.

5. Illegal methods of hunting

It is illegal to hunt any animal from a stationary or moving vehicle, or from a car or aeroplane to drive or disturb any protected animal. Hunting within half a mile of a saline or mineral lick and the setting of any trap or snare which is likely to cause injury to humans is also illegal.

6. Exceptions to criminal liability

It is permissible to kill or injure an animal in the immediate defense of human life. It is also permissible to kill any protected animal (except orang-utan or rhinoceros) or bird which is trespassing or attempting to trespass in or upon any cultivated land. The circumstances have to be reported forthwith to a Game Officer, Forest Officer or Police Officer, and the burden of proof that such killing or wounding was necessary is on the person who carried it out.

Birds not protected under the ordinance can be hunted without a license outside game sanctuaries, bird sanctuaries and forest reserves.

7. Turtles

The green turtle and the hawksbill turtle cannot be hunted except under license. The present policy is not to issue any licenses for the hunting of these turtles. The indigenous races of Sabah, can, without a license collect turtle eggs in certain areas on the west coast and off Semporna.

In the Sandakan Residency eight islands have been declared turtle farms and the rights to collect turtle eggs are disposed of each year by the Deputy Game Warden. Turtle

eggs can be collected in other areas in the State only on a license issued by a game warden. March is the closed season, and turtle eggs cannot be collected anywhere in the State during this month.

During the last war large numbers of turtles were slaughtered by Japanese soldiers on the islands near Sandakan. The islanders themselves do not kill any of the turtles, but in the Tawau Residency the Cocos Islanders working on the estates used to kill a certain number of turtles every month as they considered the flesh necessary for their well being. It is proposed in 1966 to establish a turtle hatchery on one of the Sandakan islands.

STAFF

A start has been made with wildlife conservation in Sabah, and the state is fortunate in having an excellent game ordinance. There are however many serious problems ahead. The chief of these is to attract and keep sufficient properly trained staff to administer the game laws, supervise the reserves, look after the rehabilitation project and undertake a variety of field studies.

At present the Game Section has an establishment of nine of which only six posts have been filled. None of my colleagues has any specialised training. Partially trained staff with at least some basic veterinary knowledge of hygiene and animal care are urgently required for the rehabilitation project. Other projects such as population counts, behaviour studies, investigations into the status, habitat and future of endangered species, ways and means of containing elephant within the reserves and elephant control generally apart from shooting – none of these can be undertaken by local staff at present. We must appeal to I. U. C. N. and other outside bodies for help with experienced zoologists and other experts for these studies. The staff problem is a twofold one; first to get Government to agree to establish posts at a sufficiently attractive salary, and then to find suitable applicants to fill the posts. I am not sure which is the more difficult.

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ANNEX 1

PROTECTED BIRDS

FRIGATE BIRDS:

Lesser Frigate Bird

DARTERS:

Darter

HERONS AND BITTERNS

Dusky-Grey Heron

Purple Heron

Reef Egret

Chestnut Bittern

STORKS:

Storm's Stork

Lesser Adjutant Stork

EAGLES, HAWKS, KITES:

Honey Buzzard

Crested Goshawk

Grey-Headed Fishing Eagle

Lesser Fishing Eagle

Crested Serpent Eagle

OSPREYS:

Osprey

FALCONS:

Common Falconet

White-Fronted Falconet

Peregrine Falcon

MEGAPODES:

Megapode

PARTRIDGES AND PHEASANTS:

Long-Billed Partridge

Ferruginous Wood Partridge

Red-Breasted Tree Partridge

Chestnut-Breasted Tree Partridge

Black Wood Partridge

Crested Green Wood Partridge

Crimson-Headed Wood Partridge

Crestless Fireback Pheasant

Crested Fireback Pheasant

Bulwer's Pheasant

Malaysian Peacock-Pheasant

Great Argus Pheasant

CRAKES AND RAILS:

White-Breasted Waterhen

STONE PLOVERS:

Reef Thick-Knee

GULLS:

Black-Naped Tern

Bridled or Brown-Winged Tern

PIGEONS AND DOVES:

Black-Naped Fruit Pigeon

Pickering's Imperial Pigeon

Metallic Wood Pigeon

Grey Wood Pigeon

Spotted-Necked Dove

Fregatidae

Fregata ariel

Anhingidae

Anhinga anhinga

Ardeidae

Ardea sumatrana

Ardea purpurea

Egretta sacra

Ixobrychus cinnamomeus

Ciconiidae

Ciconia stormii

Leptoptilos javanicus

Accipitridae

Pernis ptilorhynchus

Accipiter trivirgatus

Ichthyophaga ichthyaetus

Ichthyophaga nana

Spilornis cheela

Pandionidae

Pandion haliaetus

Falconidae

Microhierax caerulescens

Microhierax latifrons

Falco peregrinus

Megapodiidae

Megapodius freycinet

Phasianidae

Rhizothera longirostris

Caloperdix oculea

Arborophila hyperythra

Arborophila charltoni

Melanoperdix nigra

Rollulus roulroul

Haematortyx sanguiniceps

Lophura erythrophthalma

Lophura ignita

Lophura bulweri

Polyplectron malacense

Argusianus argus

Rallidae

Amaurornis phoenicurus

Burhinidae

Esacus magnirostris

Laridae

Sterna sumatrana

Sterna anaetheta

Columbidae

Ptilinopus melanocephalus

Ducula pickeringi

Columba vitiensis

Columba argentina

Streptopelia chinensis

Emerald Dove
Nicobar Pigeon

HORNBILLS:
White-Crested Hornbill
Bushy-Crested Hornbill
Wrinkled Hornbill
Wreathed Hornbill
Black Hornbill
Pied Hornbill
Rhinceros Hornbill
Helmeted Hornbill

HONEYGUIDES:
Malaysian Honeyguide

THRUSHES AND CHATS:
Orange-Headed Ground Thrush
Everett's Ground Thrush
Chestnut-Headed Ground Thrush

BABLERS:
Black-Browed Jungle Babbler

WOOD SHRIKES:
Bald-Headed Wood Shrike

Chalcophaps indica
Caloenas nicobarica

Bucerotidae
Berenicornis comatus
Anorrhinus galeritus
Aceros leucocephalus
Aceros undulatus
Anthracoceros malayanus
Anthracoceros coronatus
Buceros rhinoceros
Rhinoplax vigil

Indicatoridae
Indicator archipelagicus

Turdidae
Zoothera citrina
Zoothera everetti
Zoothera interpres

Timaliidae
Trichastoma perspicillatum

Prionopidae
Pityriasis gymnocephala