Pakistan's Progress

By Guy Mountfort

In the short space of twelve months Pakistan has laid wide-ranging plans for conserving her wildlife, hitherto completely neglected. On the recommendation of two World Wildlife Fund expeditions, led by Guy Mountfort, an international WWF trustee, two national parks and several reserves are being created which should give Pakistan a last chance to save the tiger, the snow leopard and several other seriously threatened mammals and birds.

UNTIL very recently wildlife conservation in Pakistan was non-existent; today the situation is extremely encouraging. Under the direction of President Ayub Khan, most of the recommendations in the report of the 1967 World Wildlife Fund expedition have already been implemented, and a number of the proposed new wildlife reserves are now in being. A wildlife committee (in effect a Government Commission) has been set up under the distinguished chairmanship of Mr. M. M. Ahmad, Deputy Chairman of the Central Government Planning Commission, to create a permanent administrative framework for the conservation and management of wildlife and habitats, and two sub-committees are studying technical, educational, legal and administrative requirements. After submitting detailed reports and recommendations to the President in the spring of 1970, the committee will be replaced by a permanent wildlife advisory body to co-ordinate future planning.

Responsibility for the management of wildlife resources has been given to the Department of Forests. Forest Officers are to be given special training in wildlife ecology and management, and the first trainees have just completed courses in the United States. Meanwhile, a post-graduate curriculum in wildlife management is in preparation at the Forest Institute at Peshawar, to which Major Ian Grimwood has been seconded by FAO. It is hoped that he will remain in Pakistan for two years, to assist the Wildlife Committee in its planning and in drafting a programme of wildlife research tasks for which his long experience in Pakistan and his command of Urdu are valuable assets.

The two proposed new national parks are now being planned. The first, of about 350 square miles in East Pakistan, will be between the Pusur and Baleswar rivers in the mangrove jungle of the Sunderbans, an uninhabited area which includes the small Kotka Forest Reserve, created some years ago but chiefly concerned with the management of vegetation. The Sunderbans contain the last resident population of tigers in Pakistan, provisionally estimated at about 150 animals. The gaur bison and barasingha swamp deer have long since been exterminated in Pakistan and most of the tigers have become man-eaters, preying on itinerant woodcutters and honey collectors when they cannot find chital (axis deer). It is hoped to re-introduce gaur and barasingha in the Sunderbans and later also the Indian rhinoceros. All three species used to be numerous in the area, and it would not be difficult to bring surplus rhinos down the Brahmaputra from the now over-populated Kaziranga Reserve.

The second national park is to be of 800 square miles in the Deosai Range of the Gilgit Agency in West Pakistan. A loop of the Indus and Gilgit rivers provides natural boundaries to the north and west, with the southern boundary on a line between Astor and Skardu. Scenically this is one of the most spectacular regions of Asia, with the 26,660 ft peak of Nanga Parbat on one side and the 28,250 ft peak of K2 on the other. It will provide sanctuary for a number of seriously threatened local species, such as the Astor race of the markhor *Capra falconeri falconeri,* the shapu *Ovis orientalis vignei* and the Himalayan ibex *Capra ibex sibirica,* and also protect the much persecuted snow leopard, Himalayan black bear and brown bear. It is hoped that the reserve may permit some of the fast disappearing Himalayan pheasant species, such as the monal, cheer, snow cock and snow partridge to be raised in captivity. There is evidence that the western horned tragopan *Tragopan melanocephalus* may after all not yet be extinct, more than one having been shot recently in this region.

The Pablakhali Reserve in the Chittagong Hill Tracts of East Pakistan, regarded by the 1966 WWF expedition as having seriously deteriorated because of the incursion of teak plantations and the shifting cultivation of the Chakma and Mogh tribes which had settled there, has now been reshaped by the addition of 100 square miles of untouched primary forest adjoining the Burmese frontier. A protective buffer zone of another 100 square miles has been created along the vulnerable western side; local tribes are banned from entry, and teak planting has been halted. Fifty chital have been successfully transported from the Sunderbans to the new reserve, where sambar had previously been introduced. Both tiger and clouded leopard occur in this region occasionally, and there is a small resident population of Indian elephant. Plans are in hand to encourage ducks in the flooded area created by the adjacent Kaptai Dam, by grading the banks of the backwaters and planting them with suitable vegetation. Later it is hoped to attempt the captive breeding of white-winged wood ducks here if some of these now very rare birds can be located.

Two important *haors* (marshes) at Hail and Kakaluki, in the Sylhet Division of East Pakistan, are to become wetlands reserves. In order to cater for the needs of the local population, these will be managed on a multi-purpose land-use basis. One fifth of each area will be fully protected, the remainder being divided for rotational use for fishing, reed-cutting, grazing and the licenced shooting or netting of ducks. At present all the last mentioned activities are practised simultaneously throughout both regions; the disturbance to and loss among the multitudes of ducks which congregate when the lakes in Tibet freeze over are serious. A complete ban on the local human activities would, however, impose unacceptable hardship on the communities. A third *haor*, at Tengwa, may be turned into a reserve on the same basis.

Also in Sylhet Division, in an enclave between the borders of Assam and Tripura, is the new Kalinga Reserve. This small but valuable remnant of primary forest, discovered during the 1967 expedition, contains an astonishing concentration of wildlife. The black-breasted Kalij pheasant *Lophura*

THE SUNDERBANS: a typical creek in this proposed national park for Pakistan. Plate 13: *Eric Hosking*

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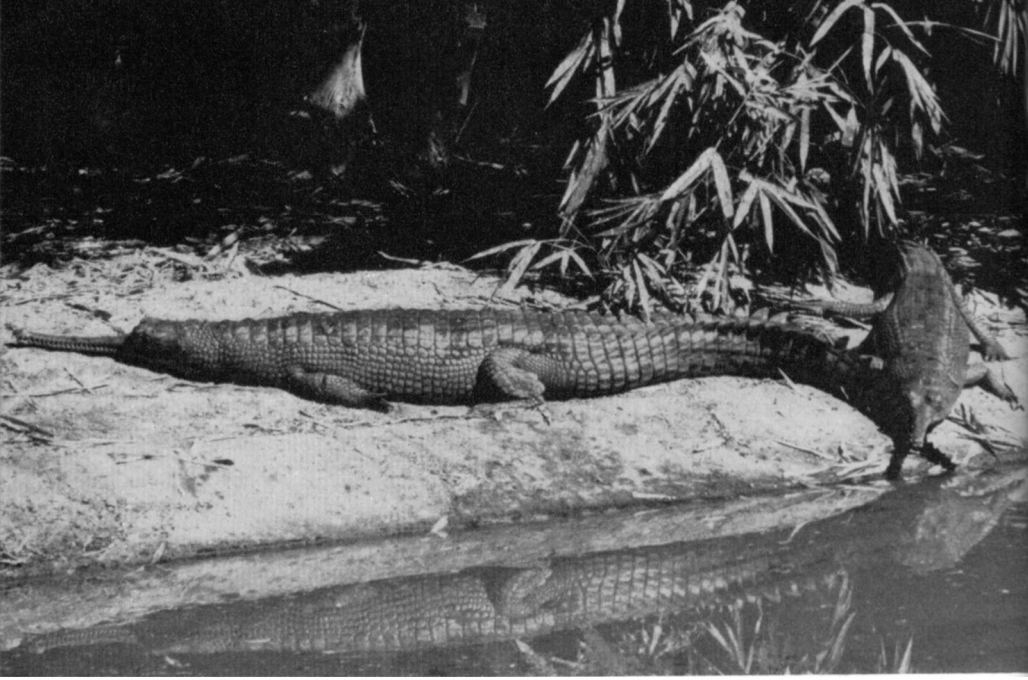

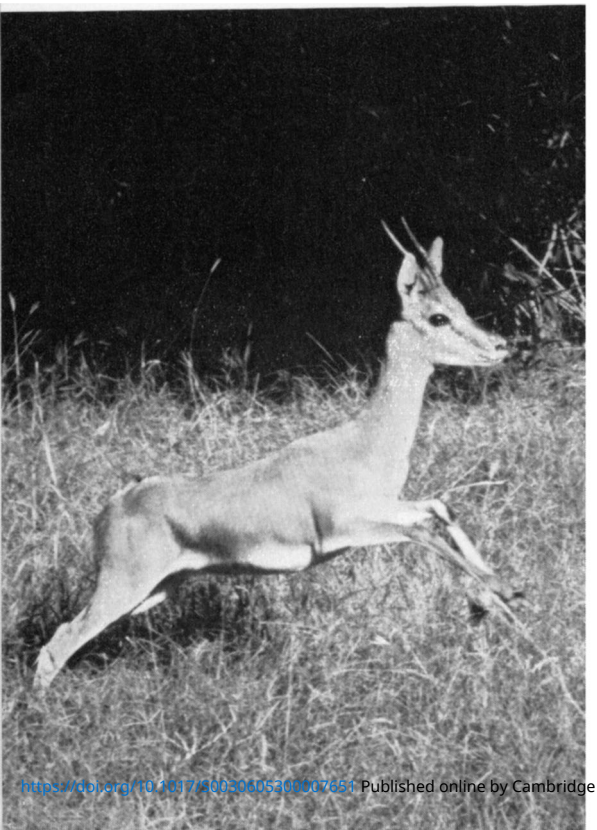

WILDLIFE OF PAKISTAN: left, above, GAVIALS (or gharials), slender-snouted crocodiles adapted to catching fish; below, CHINKARA or Indian gazelle and the PUNJAB URIAL or shapu, a threatened species for which a reserve has been created in West Pakistan. Above, SLOW LORIS, whose name derives from the Dutch *loeris* meaning a clown. Plates 14–17, *photographs by Eric Hosking*

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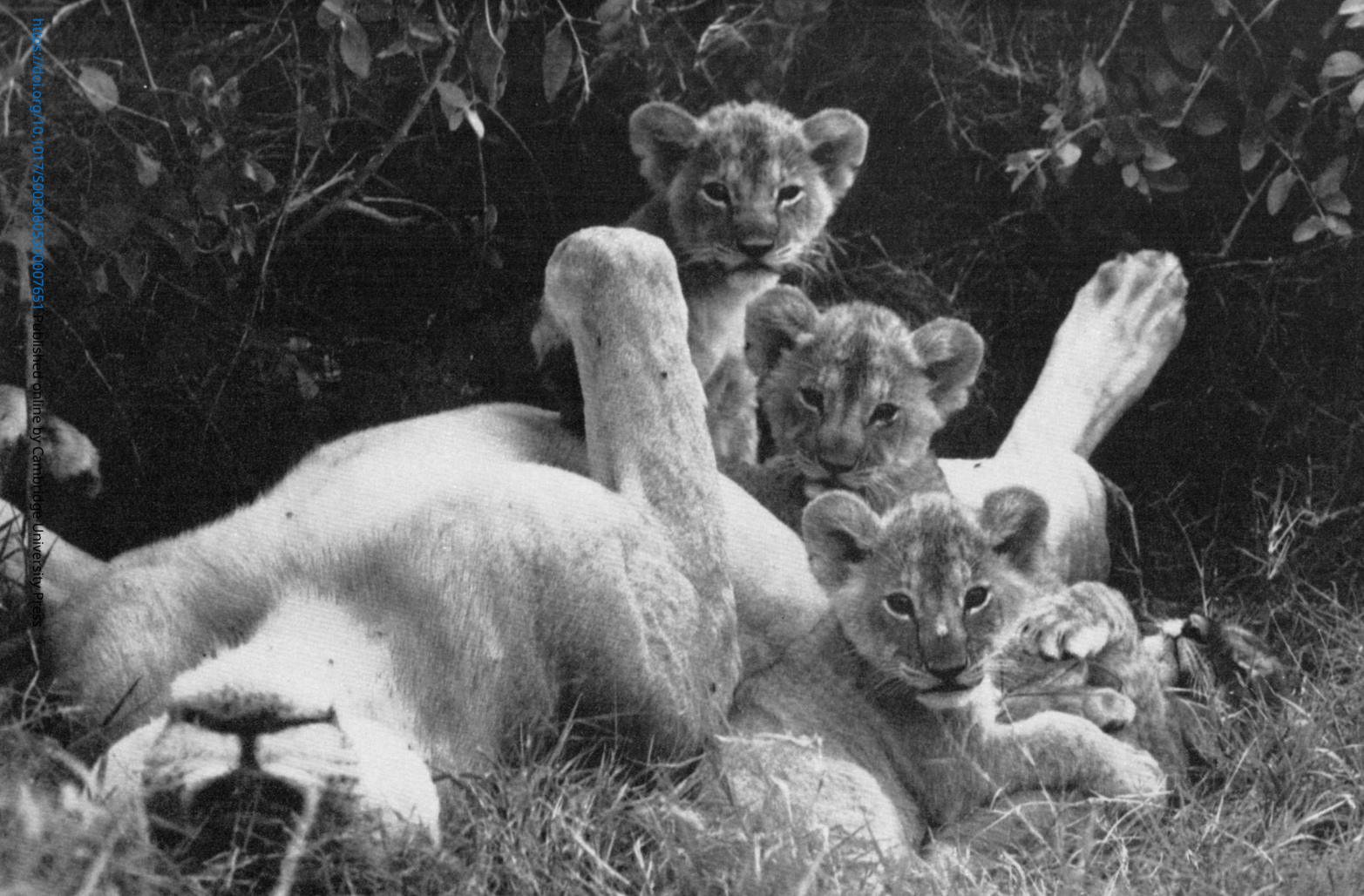
Plates 18, 19
FATHER TAKES HIS EASE ALOFT . . .
MOTHER SLEEPS IT OFF BELOW
Norman Myers



ANIMAL TRADE IN TAIWAN. Above, stuffed animals and birds for sale in the aborigine tourist village at Sun Moon Lake. The display includes a white-headed flying squirrel, muntjac deer, pangolin, Swinhoe's pheasant, and fairy pitta. A sheet of butterflies in plastic is hanging at the top. FORMOSAN SIKA DEER, below, now extremely rare in the wild, in Taipei Zoo. A female on the left has one hind leg severed where it was caught in a trap. Plates 20, 21: *Philip Wayre*

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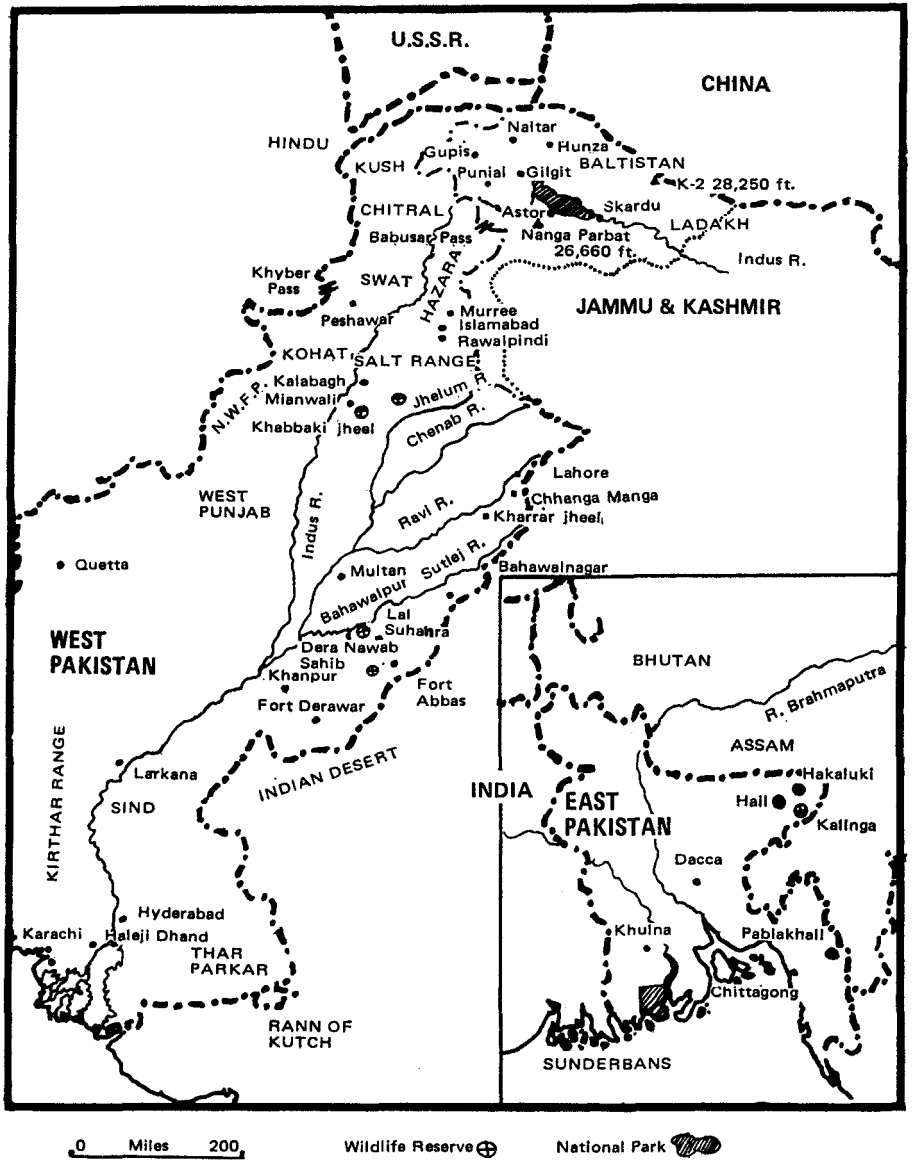

leucomelana lathami is still fairly numerous there, as are barking deer, langur and Assamese macaque monkeys and many squirrel species. One of the now extremely rare golden cats *Felis temmincki* was seen here and also a tiger, doubtless a vagrant from Tripura State. Even more astonishing

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was the discovery of a colony of dusky leaf monkeys *Presbytis obscurus*, a species previously regarded as restricted to Malaya.

In West Pakistan the Kalabagh Reserve in the Salt Range is now flourishing. This was created during the 1966 expedition to protect the last surviving population of the distinctive Punjab urial *Ovis orientalis punjabiensis*, reported in ORYX, December 1967. At Lal Suhanra, in Bahawalpur Division a new combined wetlands and desert reserve will presently have enclosures in a suitable lagoon in which an attempt will be made to re-establish the marbled teal. Christopher Savage, who represents the IWRB in Pakistan, will direct this project, using an initial breeding stock given by the Wildfowl Trust. Another wetlands reserve has been created at Khabbaki *jheel*, in District Mianwali. This is the only known Asiatic moulting ground of the white-headed duck, of which some hundreds were present last winter. Khabbaki is likely to become an important centre for wildfowl research.

At Fort Abbas, in the southern Cholistan desert, a breeding reserve is being created for Chinkara gazelles and blackbuck, both species now nearing extinction in Pakistan. The blackbuck survives in such small numbers that a breeding stock will have to be imported either from India or from Texas, which now probably has a larger number of introduced and locally bred blackbuck running wild on its great ranches than exist in the Indo-Pakistan subcontinent; one ranch alone has 5000!

Another reserve is planned for the mouth of the Indus, at Keti Bundar, which will protect the only surviving breeding colony of painted storks in Pakistan. Here the mangrove swamps are also inhabited by large numbers of herons, egrets, ibises and other water-birds, furthermore they are one of the last refuges of the fishing cat and the rock python.

In order to provide a centre for those engaged in the new field research programme, it is proposed to open a Wildlife Centre at Khanewal, in District Multan. Land for this has been offered by Tom Roberts, a prominent local naturalist who was a member of the World Wildlife Fund expeditions, and the Land Rover recently given by the Fauna Preservation Society will be based here. Initially, living quarters and other facilities will be made available to limited numbers of visiting research workers concerned with the conservation programme, who will work in collaboration with Pakistani graduates. Later is is hoped to add a reference library, a laboratory and larger accommodation. The proposal has been welcomed in official circles and discussions are in progress with the Smithsonian Institution and the World Wildlife Fund about financing the first approved research projects. The British Ornithologists' Union is among the societies which are considering the possibility of conducting research in Pakistan.

One of the most important developments in the Pakistan conservation programme has been the rapid passing of legislation banning the export of skins of all wild animals. By this bold stroke, if it can be fully enforced, the appalling losses inflicted by skin traders on the various cats, otters, monitors and crocodilians during the past 20 years will be halted. Some idea of the need for this can be gained from the fact that a single skin trader in Peshawar was recently found to be in possession of no fewer than

60 skins of snow leopard, 30 lynx, 8500 leopard cat, and 8000 stone marten. Finally a national appeal on behalf of the World Wildlife Fund is to be launched during 1969.

Starting from scratch, Pakistan has achieved in twelve months the framework of a first-class and vigorous conservation programme. Though much remains to be done, the next 12 months should provide substantial improvements in the status and survival of wildlife and habitats in a particularly vulnerable part of the world.

Oil Pollution of the Sea

By C. L. Boyle, OBE

Oil pollution of the sea used to be caused mainly by deliberate dumping of waste oil. Today this problem could be almost mastered by the 'load on top' system, but the chief cause remains accidents to tankers such as the *Torrey Canyon*. In this report on the Rome conference on the subject, held in October 1968, Lieutenant Colonel Boyle, former FPS secretary and a member of the British Advisory Committee on Oil Pollution of the Sea who represented the FPS, describes the working of the 'load on top' system and the discussions on the new problem. Lord Jellicoe, Chairman of the British Committee, presided at the conference.

ACCIDENTS to tankers are the biggest cause of oil pollution in the sea today, but until recently the main cause was the deliberate dumping of waste oil by tankers in order to clean their tanks for the next cargo. The 1954 International Convention on Oil Pollution of the Sea, which has been ratified by 39 nations, has largely stopped this dumping of waste oil in large areas of sea, notably the North Sea and much of the North Atlantic, and has made the provision of oil-water separators in dry cargo ships almost universal. Credit for these achievements is principally due to Mr James Callaghan and Miss Phyllis Barclay-Smith, former Chairman and present Secretary respectively of the British Advisory Committee, and to Counsellor Gunnar Böös, President of the Nordic Union for the Prevention of Oil Pollution of the Sea.

After a tanker has discharged her cargo, about 0·4 per cent of the oil remains on the tank sides, and this 'clingage', amounting in 1967 to 2·8 million tons of oil, went into the sea in the process of tank washing while the tanker was returning to her loading port. In 1960, Lord Hurcomb questioned the basic assumption that all tanks must be clean on arrival at their loading ports, and from this simple but fundamental question arose the 'load on top' system which has now been adopted by operators of about 80 per cent of the world's tanker tonnage. Under this system the oily sea water from the washing out of tanks and oily ballast water is pumped into a tank called the 'slop tank'; the water settles at the bottom of this and is then pumped back into the sea. The oil above it, though a little contaminated with salt, remains and becomes part of the next cargo.

The chief difficulty is that the very last outflow of 'clean' water from the bottom of the slop tank into the sea contains a considerable proportion