

Hornbill

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DESIGN

Amar Shekdar

The Society was founded in 1883 for the purpose of exchanging notes and observations on Zoology and exhibiting interesting specimens of animal life. Its funds are devoted to the advancement of the study of zoology and botany in the Oriental Region. The Society also promotes measures for conservation of nature.

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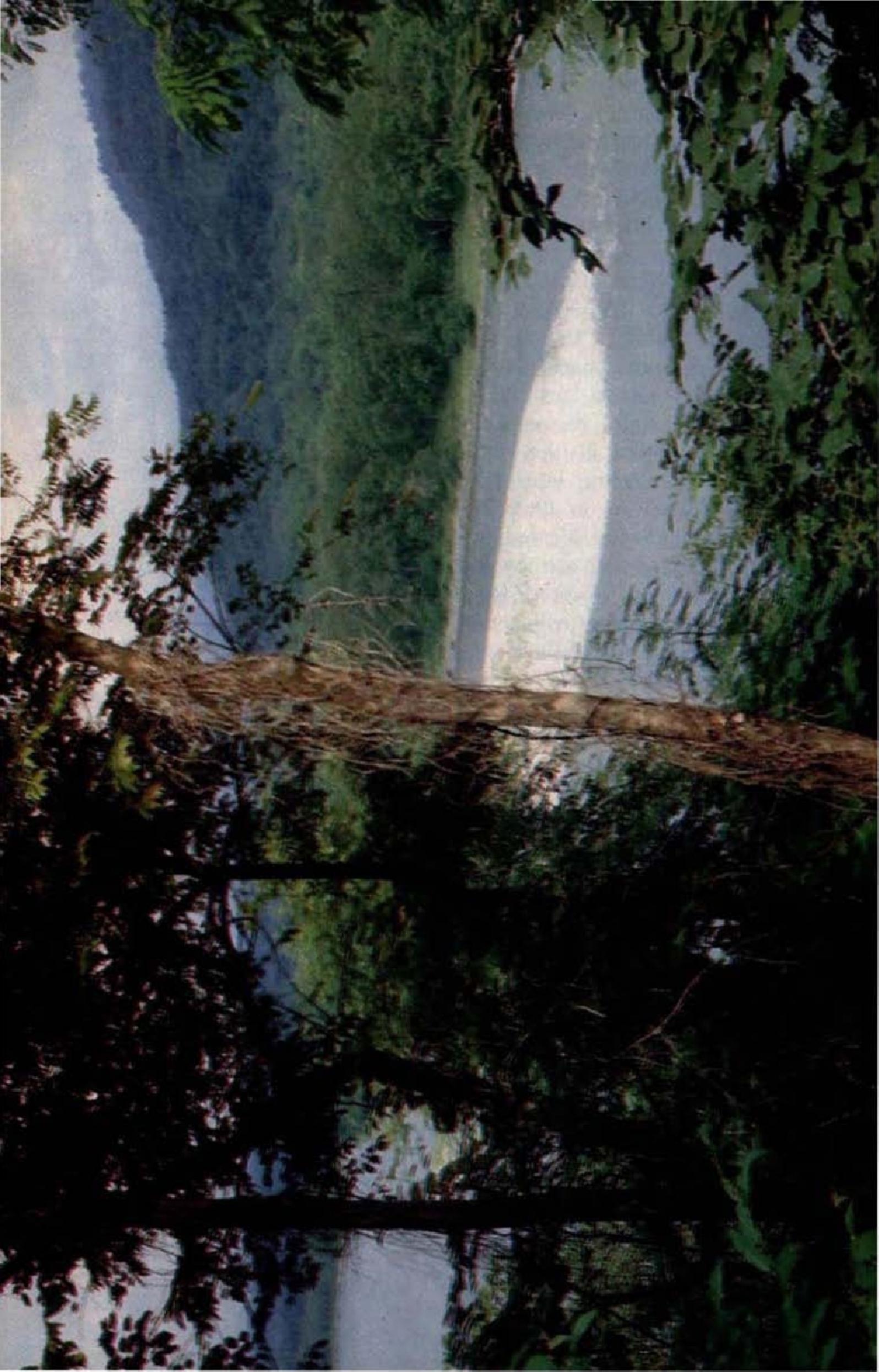
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The first annual subscription of members elected in October, November, or December will extend to the 31st December of the year following the election.

Write to: The Honorary Secretary,
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MANAS-

The land of the *Ulu Moira*

LIMA ROSALIND

A cold breeze sweeping across the vast expanse of green, the bright orange sun faintly visible through the mist, the calling of the peacocks ... the upright ears and tails of the Hog deer giving notice that the king of the jungle was on the prowl...For this is tiger country -- the delightfully Kiplingesque Manas Wildlife Sanctuary, one of India's premier wildlife reserves.

The sanctuary, locked into the foothills of the Eastern Himalayas on the Bhutan border, has a spectrum of forest types, from the sub-Himalayan moist-mixed deciduous and wet-evergreen forests that blanket the foothills, to the eastern wet alluvial grasslands and low alluvial savannah woodlands in the plains. This diversified and highly dynamic habitat harbours the largest number of animal species in the country, including 42 of the endangered species listed in Schedule 1 of the Wildlife Act.

Manas, it was once remarked, is what the earth looked like before the arrival of Man -- a jewel embedded on land, reflecting nature's varied and brilliant hues. The Manas river flowing across the reserve is one of its dominant physical features. From its source in the remote reaches of the Bhutan Himalayas, it roars over gorges and fiery rapids, down a rugged valley, meeting the plains at the Manas Sanctuary. Frequently, it changes course, and boulders and giant scoops of silt are strewn over the area once covered by the river. It disgorges vast quantities of water into the sanctuary through rivulets, streams and *nalas*. The *beels* or seasonal wetlands formed during this shifting of course are frequented by the swamp deer (*Cervus duvauceli*). The *nalas* also form permanent waterholes for the animals of the sanctuary.

The sanctuary was made a Project Tiger area in 1973, and the success of the programme is evident. Today, Manas is believed to support the second largest population of tigers (after the Sunderbans) in the country. But tigers are more often heard than seen here, and Manas is no place to anticipate a guaranteed sighting of this magnificent cat. On the other hand, the elephants more than compensate for this lack. Although both tuskers and *makhnas* often raid crops and destroy huts, the locals revere them as 'Ganesh Baba'. They are driven away by nonviolent means -- shouts, drumbeats and crackers.

We, too, have had our run-ins with the elephants. Our hides and *machans*, situated in the tall grass or atop trees, were frequently destroyed by

elephants returning from their nightly forays. Once, a dawn photography session from a basket hide was interrupted by a visit from a big tusker. We set off crackers (we always carry some along) to stop his advance for a few moments, bounded into our jeep and sped off. Later, the ranger, S K Sarma, remarked that the encounter could have been disastrous: the tusker was a known rogue, and in musth besides.

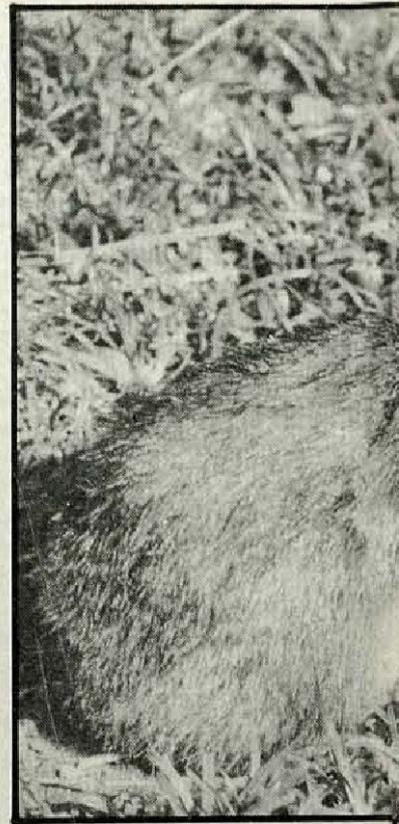
Tigers rarely cause problems, preferring concealment to confrontation. Very rarely, they attack lone human beings on foot. In January '87 a tiger badly mauled a mahout who had gone into the jungle to collect his elephant. A similar incident, involving another tiger, was repeated in September that year: this time a grass-cutter was injured. Tigers often stray into the nearby tea-gardens and lift cattle from the villages. The tiger in the first instance was trapped, and it was found that it had a deep wound in its forepaws and was hence unable to catch its natural prey. In the second case the animal was a healthy four year old male, which had earlier chased our field assistant up a tree. Its territory was very close to the boundary of the sanctuary, and it had therefore lost the fear of man.

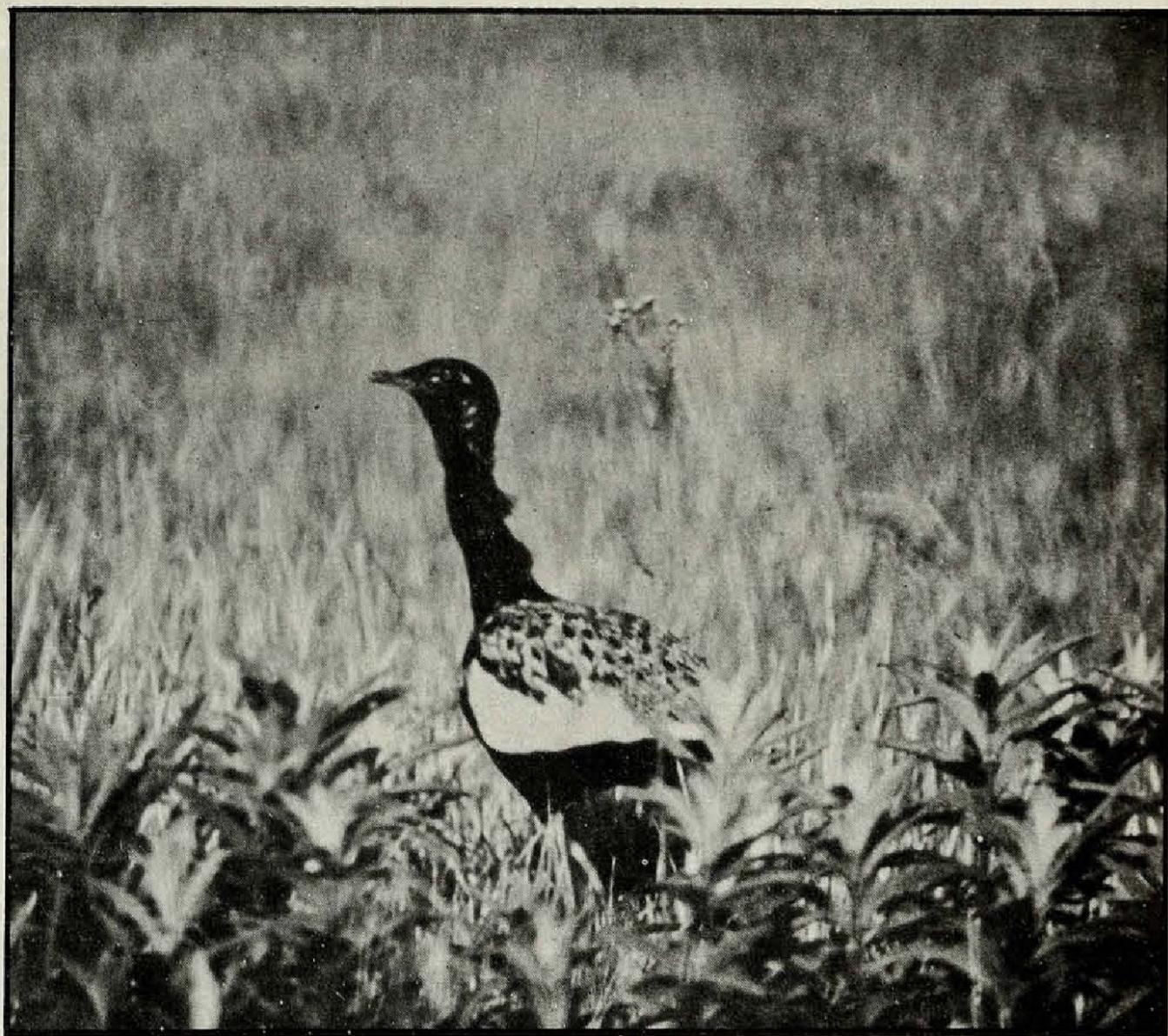
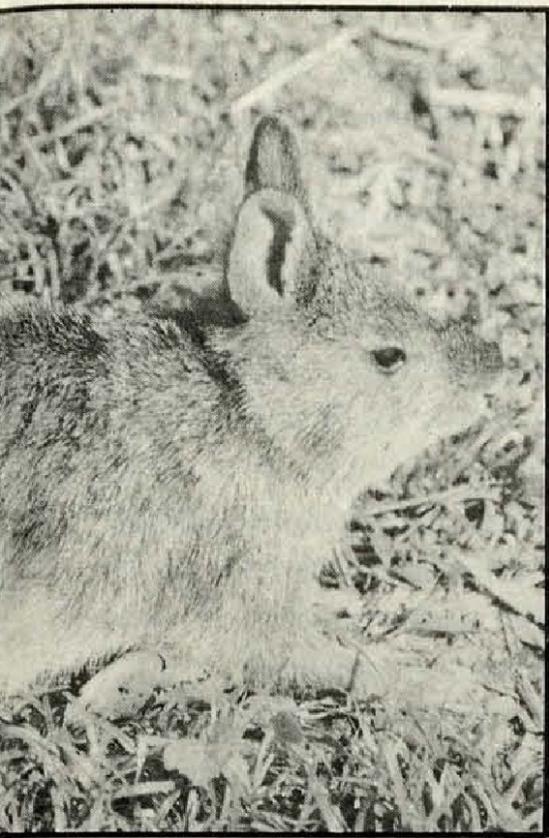
Summers in Manas are hot and humid. The browning of the grass and the falling leaves herald the arrival of autumn. The *Simul* or Silk Cotton (*Bombax cieba*) breaks into a riot of blood-red flowers. In the grassland, the shrub *Sonchus arvensis* begins to bloom, its bright lemon-yellow flowers providing a perfect complement to the green of the grass. The thatch grass is cut or burnt by the Forest Department at this time, to allow fresh grass to come up. The new growth brings the hog deer, the buffalo and the elephant frequently to the open grassland. Some grass is cut and stored, to be used later as compensation for crop or huts damaged by animals.

Winters are cold, with the mist spreading its translucent blanket over the landscape. Night falls quickly, with sunsets as early as 4.30 p.m. With the first showers of rain in early February, the sanctuary comes to life again. This is the beginning of the breeding season for most of the birds in the area. Soon, untidy structures appear on tree branches: Finn's Baya, one of the weaver birds of the area, are hard at work decorating their nests. Males of the highly endangered Bengal Florican (*Houbaropsis bengalensis*) perform their spectacular aerial displays to woo females hidden in the grass.

Top left: Hispid Hare — among the rarest of Manas's mammals, and probably the most difficult to photograph. *Top right:* Hog deer stag.

GOUTAM NARAYAN





Bengal Florican — Manas is home to nearly one fifth of the world population of 400-odd.

GOUTAM NARAYAN

The Bengal Florican is known locally as '*Ulu moira*', or Peacock of the Thatch Grass (*Ulu* = thatch grass; *moira* = peacock in Assamese). It is considerably less active than the related Lesser Florican, frequently spending long periods -- sometimes more than an hour -- scratching around at the same spot, from time to time looking around with neck stretched (possibly another kind of display). These periods of seeming lethargy are interrupted, without warning, by sudden bursts of activity. When we began studying and photographing these elusive birds in '87 our work was a trial of patience. But after two years of practice, we have fine-tuned our reflexes to match the birds' pattern of activity.

The florican is almost extinct in Bengal, and a few now exist outside Assam; not surprisingly, some Assamese suggest a change of name to Assam Florican! Manas supports a sizeable population, but persistent cattle grazing within the sanctuary remains a problem. A limited amount of grazing either by cattle or wild animals is essential to arrest the growth of the grass and thereby make the area more conducive to the floricans, but the movement of cattle during the birds' breeding period needs to be severely restricted.

The grasslands in the floodplains of the Manas river are the favoured habitat of the wild buffalo (*Bubalus bubalis*), and it is here that these are found in their genetically purest form. They are formidable creatures, dirty grey-black coats gleaming wet, horns thrown back in a great sweeping arc. Cows are generally more even-tempered than bulls. The latter are usually

GOUTAM NARAYAN

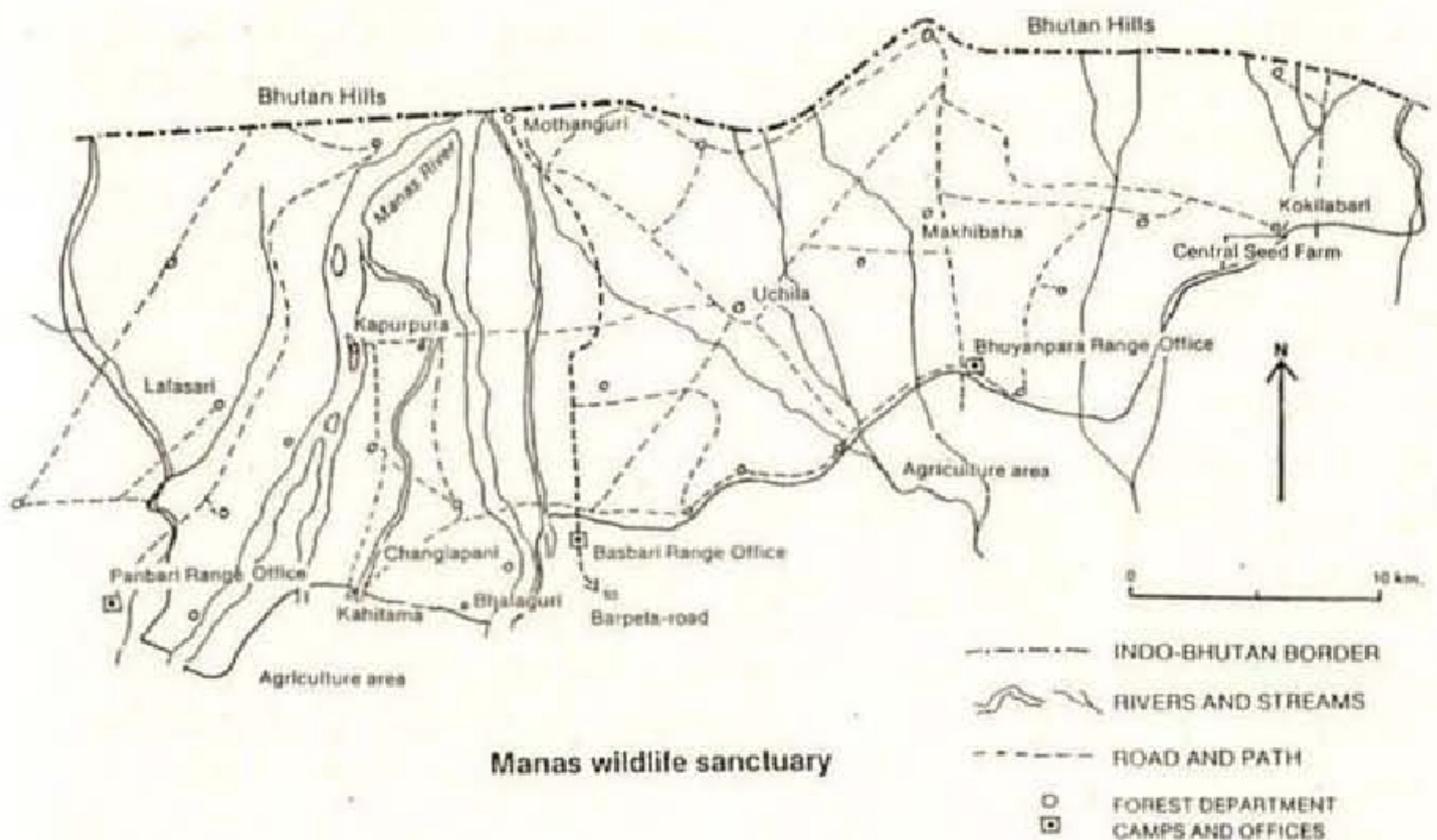
Herd of buffalo cows; bulls usually live separately.



obstinate, standing erect and ready to charge, refusing to let human intruders pass, and eventually forcing a retreat -- when the opponent is a bull, discretion is best.

December and January is the picnic season. Every holiday, thousands of people invade the sanctuary, completely shattering its tranquility. The Forest Department has recently begun to restrict entry to 40 buses per day. But upto 200 buses queue up at the entrance, and any refusal to permit them to enter the sanctuary threatens to develop into a riot. These picnickers are not even remotely interested in wild animals. They come, with cassette players blaring, with the sole intention of having a feast on the banks of the Manas river. The sight of any animal brings out the animal in them, and they exhibit this behaviour throughout the 20 kilometer drive to the river. Finally they return at sundown, leaving the place littered and filthy. The restriction on picknickers should be strictly enforced if the pristine habitat of Manas is to be maintained.

There are other maladies as well, especially cutting of wood and thatch by villagers along the sanctuary's periphery. They are driven to it, in the face of heavy odds, by poverty. The Forest Department compensates those whose houses have been damaged by elephants with a limited amount of money and thatch. But no compensation is awarded for cattle lifted by tigers, or crops destroyed by foraging elephants and deer. This neglect could cost dearly in the long run; without the cooperation of the villagers, the Manas sanctuary may go the way of many others in the country.





First Laokhowa, now Manas — yet another victim of rhino poachers. GOUTAM NARAYAN

The Bodo agitation, which began in mid-February, is now probably the single most serious threat to Manas. To the big-time poachers and timber smugglers it is a golden opportunity. The jungles in the sanctuary provide refuge to extremists, who are often armed, and turn easily to violence. Consequently, the sanctuary has now been deserted by the protection staff; the flood-gates are now open.

In February, the extremists attacked and burnt the Panbari Range Office and staff quarters, and a little later the forest camp at Lafasari. A mahout was killed, and a game watcher seriously injured. In April the forest camp at Makhibaha was burnt, and another game watcher killed. Thirteen truckloads of timber were confiscated by the Forest Department in June at Barpeta Road. In July, 600 logs were found buried under the soil in a paddy field on the outskirts of the sanctuary. We have not been spared either. While returning to camp one evening, we were stoned by a mob, and the windscreen of our jeep smashed — probably to persuade us to leave the sanctuary.

The history of conservation has its ups and downs, but Assam's tale is unique. During the AASU agitation in 1983, over 30 rhinos were slaughtered, within a period of 3 months, in the Laokhowa Sanctuary in Nagaon district. Now it seems to be the turn of Manas. Let not Manas go the Laokhowa way. The State and Central Governments need to take immediate action to flush out the extremists from the sanctuary. Nature should not become a victim of their petty politics. Unless the authorities move quickly, we will be writing not poems, but requiems for the Manas Wildlife Sanctuary ■