

which I am sure may still prove very effective, if tested and integrated with the modern mitigation methods. The search is on and Lucknow having a long history of traditions and cultures could be a best bet for this initiation – Let's hope so !

The rare freshwater Giant Stingray in the National Chambal Sanctuary: Needs more attention for conservation

- K. Sivakumar

The giant freshwater stingray (whipray) is one of eight apparently obligate freshwater species of dasyatids (four *Dasyatis* spp. and four *Himantura* spp.). The giant freshwater stingray is known from fresh waters in Thailand in the Chao Phraya, Nan, Mekong, Bongpakong, Tachin and Tapi Rivers. It is also recorded from Mahakam Basin [Borneo], the Fly River Basin [New Guinea], and from Australia in the Gilbert River [Queensland], the Daly and South Alligator Rivers [Northern Territory], Pentecost and Ord Rivers [Western Australia]. It may occur in most of the large rivers of tropical Australia. However, it has not been recorded from marine waters in any of its known range.

The only freshwater stingray found in India is the giant freshwater ray *Himantura chaophraya*. This species was not much known because it is very difficult to find live specimens and there are not many groups conducting research on them in India. There has

rays in the Mahanadi River also. There were unconfirmed reports from fishermen in India revealing that they occur in the Ganges river, however, the stingray present in the Ganges may be *Himantura fluviatilis*, which is also seen in backwater areas. Research personnel from the Wildlife Institute of India had conducted several studies in this National Chambal Sanctuary and had very occasional sightings of *Himantura chaophraya*. On 9th February 2002, a huge dead stingray was found on the bank of river Chambal (Morena). The M.Sc. students of the Wildlife Institute of India studied morphometric characters of the specimen. This is the first time in the river Chambal, morphometric of a freshwater stingray was studied. Dorsal side of the fish was dark brown in colour with lot of blisters on the head. Ventral side was white in colour. Total length of the fish was 178 cm, which includes the 110 cm long tail. Disk width was 76.5 cm and the inter orbital length was 12 cm. This species reaches up to 200-cm disk width, which was reported in Thailand. When the specimen was carefully observed, a fishing hook was found in the dorsal side of the disk. Hence, it was believed that this fish died due to fishing hook.

The conservation status of this species in India is not known. However, studies from Thailand and other countries show that due to habitat alteration in riverine habitats and indiscriminate fishing keep this species in the category of critically endangered. In India, Ganges stingray

Himantura fluviatilis protected under Schedule I of the Indian Wildlife (Protection) Act 1972. Giant stingray, which is occurring in the National Chambal Sanctuary and other part

of our country need legal protection and also it is necessary to study the status and ecology of this species for their future survival.

Uttaranchal Biosphere Conservation Authority

- A.J.T. Johnsingh

This is in response to the excellent concept paper "Uttaranchal Wildlife Parks Authority" circulated by Dr. R.S. Tolia, Principal Secretary and Commissioner of Forests and Rural Development. The newly born State of Uttaranchal has a total area of 53,485 km² with 34,661 km² under forests, of which 23,988 km² is in the custody of Forest Department. Total area coming under protected areas is 6,479 km² of which 4,083 km² covering six National Parks and 2,396 km² covering six Wildlife Sanctuaries. Uttaranchal is a state with breath taking scenic beauty; charismatic wildlife like Asian elephant, Himalayan Musk deer, Himalayan tahr, bharal, tiger and snow leopard; fascinating birds particularly pheasants such as Himalayan monal, Satyr tragopan and other birds like white-crested laughing thrushes; rivers where golden mahseer can be protected to grow into giant specimens; mountain streams and lakes where rainbow (*Salmo gairdneri*) and brown trout (*Salmo trutta*) could be propagated and above all friendly and peace-loving people. It is suggested in this concept paper that the entire state should be managed as one Biosphere Reserve with its protected areas as Core Areas for biodiversity and wildlife conservation, Reserve and Village forests as buffer zones and human dominated landscapes as multiple use areas. The overall aim of this approach should be to strengthen biodiversity and wildlife conservation, enhance ecological productivity of the land, augment revenue generation for the State and thereby improve the living standards of the people.

Under the Biosphere Authority there could be Wildlife Protected Areas Authority, Nanda Devi Conservation Area Authority (there could be several such authorities for each fabulous mountain habitat), Buffer Zone Authority (e.g. to meet the timber and firewood needs of the population), River, Stream and Lake Conservation Authority (to promote rafting and to enhance the resources like mahseer and trout which can bring in lots of anglers and revenue) and Multiple Use Zone Authority, where other agencies such as Agriculture



recently been a capture of a few specimens from the river Kandal, Orissa (India) believed to be *Himantura chaophraya*. There were some reports that fishermen have caught fresh water