Pakistan is home to two otter species i.e. the Himalayan otter, *Lutra lutra kutab* and Sindh otter *L. persipicillata sindica*. Locally both species are known as "Ludhar". The two species are described in the following paragraphs:

*Lutra lutra kutab*, SCHRINZ 1844; Himalayan Otter or common otter

This otter has short fur of dark brown colour which lightens to a silvery brown on the throat. The guard hairs are highly glossy. The tail is 35-46 cm long and is thick/muscular at the base. It is flattened into a paddle shape towards the end. The ear pinnae are very small and capable of being press back against the skull when under water. The upper margin of the nose pad is indented like a "W". The female has only 2 pairs of mammae. There are stiff, short, white vibrissae around the muzzle for searching under stones and in turbid water. The claws are short about 8 mm in length and in turbid water. The claws are short about 8 mm in length and blunt with soft naked pads at the tip of each digit for feeling and grasping underwater prey. Head and body is 60-76 cm long. Females weigh about 5 kg and males about 7.5 kg. It occurs in Chitral, Swat, Kohistan, Gilgit, Kunhar River, Naran, Hazara and Baltistan. The Himalayan otter inhabits mountainous areas and does not occur in plains. Trout is one of the items of its food. Trout inhabits streams up to 3500 m (12000 ft) altitude. The Deosai Plateau of Baltistan literally swarms in summer to provide plenty of food. They also eat fresh water crayfish, frogs and water fowl.

Brown trout were successfully introduced into Northern mountainous areas of Pakistan in 1950. Initially, this trout demonstrated tremendous growth rates and reached large sizes which started to decline after about a decade. This decline in the population of trout was attributed to the otter. Hence a system of paying bounties to destroy the otter was introduced. This resulted in major reductions of otter populations. The possibility of otter hunting for its skin was also considered. During June, 1989, fur shops in Gilgit, Karimabad, Galmi, Sust and Rawalpindi were visited. However, very few skins were on display in these shops. The probable cause of the decline of the otter population appears to be a deep rooted notion that it is detrimental to fisheries. It was shot and trapped on a large scale.

The true situation is that there was surplus food available for the introduced trout and so they grew well for the first few years. As the food supply diminished growth rate slowed and maximum size declined. The otters were blamed for this. In fact otters take fish which are easily caught and cannot damage the large specimens. Any damage to trout was counterbalanced by the fact that they also preyed upon eels and other carnivorous fish. To sum up, the Himalayan otter has shown a serious decline in population due to an incorrect notion and misunderstanding that its destruction will restore the original growth of introduced trout.
Lutra perspicillata Sindica; smooth coated otter

It is similar to the common otter but is paler in colour. The upper border of the naked nose forms a smooth convex outline and not a "W". Its tail is more flattened and its fur is slightly shorter than that of the common otter.

Females of the smooth coated otter have three pairs of mammae. It occurs in the plains of Pakistan in the Chenab river upstream of maralla, the Eastern Nara swamps of Sindh, Sukkur Barrange, Hala and Mehralpur forest reserves and Lal Sohanra Lake. It does not occur in the lower estuary of the river Indus nor along the sea-coast. In fact its local name means freshwater otter. This species is more sociable and gregarious than other otters. It preys upon all the fish species of the Indus and is fond of murrel, catfish, river grayfish, frogs, birds and rodents. Males mark their territory by regularly depositing their faeces on grass clumps and sand-dunes. The gestation period is 61-63 days and implantation is not delayed in this species. This otter is almost an endangered species because it is shot for its pelt and is hunted to protect commercial fish. One tribe in the lower Indus uses it to drive Indus dolphins into shallow waters where the dolphins can be killed easily.

The 180 degree problem

Fish is an important part of the diet of those people of Pakistan who live near the wetlands. Ever since these people started fishing, otters were recognized as major enemies of fish. One of the main objectives and achievements of the Government Fisheries Department was the elimination of otters. Therefore, the government offered bounties, devised ways and means and utilized its extension service to destroy otters. In this connection an extract from book No. 7 by the Directorate of Fisheries of West Pakistan may be of interest (AMJAD, 1960).

"Enemies of fish are varied and numerous. The damage caused by them to fisheries is immense. Common among them are otter, white heron, grey heron, kind fisher, mullee fish, saul and beetle larvae. Otters are regarded as wasteful feeders. It is said that they eat a piece from the shoulder and throw the rest. They also do harm by playing with fish. In one of the experimental tanks at Chhenawan, during one night, otters killed 200 six month old fry".

Now the environmental experts recommend an 180° reversal so as to protect living species (including otters) to preserve biological diversity. Their logic is easily understandable to the people of developed countries as well as by the experts in developing countries. However, this logic is hard to understand by the illiterate teeming millions of the third world, particularly fishermen whose forefathers and field officers of the government had taught them fish technology for generations. This problem needs to be addressed objectively before otters and other "predators" can be preserved.

CONCLUSIONS

To sum up, otters in Pakistan are heavily persecuted and it is difficult to mould public opinion in their favour. It is, however, recommended that a three point action plan for its protection may be prepared for implementation. This will include:

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1. Notification of suitable areas as wetland reserves/sanctuaries,

2. Strict enforcement of the ban on killing of otters, and

3. Strict enforcement of a ban on export of otter skins. There is a need to equip the owners of fish hatcheries with a suitable technology to scare otters away from their premises without causing damage to their fish.

REFERENCES