A Study on Distribution and Behaviour of Smooth-Coated Otter (*Lutrogale perspicillata*) at Kota and Rawatbhata (Chittorgarh), Rajasthan, India

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Abstract: Smooth-coated otter was once distributed in a vast portion of Rajasthan. This situation was reported up to 1965. After this period, it was hunted to get the valuable fur. This destructive practice was observed till the commencement of Wildlife Protection Act, 1972. By this time this species became extinct from a major part of Rajasthan. At present, Smooth-coated Otter is mainly found in the flow area of Chambal River, south-eastern Rajasthan. But here too, due to increasing water pollution and plastic pollution, there is a threat to their existence. It is considered a vulnerable species in the list of IUCN (Saha and Mazumdar, 2008). Travelling, playing, drying and grooming are the most prevalent activities recorded. Present investigations describe the behavioural activities of Smooth-coated Otter in Chambal River. It was mainly observed fishing on Tilapia fish along with other species.

Keywords: Smooth-coated Otter, River Chambal, Behaviour

1. Introduction

The smooth-coated otter, *Lutrogale perspicillata* (I. Geoffroy Saint-Hilaire, 1826), is an oriental species ranging eastwards from Iraq through the Sind, Nepal and Assam to Indochina, Malaya and Sumatra (Sivasothi and Nor, 1994; Hussain *et al.*, 2008; Koepfli *et al.*, 2008; Khan *et al.*, 2010; Lau *et al.*, 2010). There are 13 species of otters spread all over the world and India has three species (Johnsingh and Manjrekar, 2013; Menon, 2014). Out of three species of otter found in India, only one species is reported from Rajasthan which is known as Smooth-coated otter, *Lutrogale perspicillata*, (Sharma and Shrivastava 2019). They are semi-aquatic, social, carnivores, hunting in small family groups (Helvoort *et al.*, 1996). Their presence in an environment can indicate its health, as they are sensitive to aquatic pollution and degradation of the surrounding terrestrial habitat (Fournier – Chambrillon *et al.*, 2004; Lemarchand *et al.*, 2010, 2011). Smooth-coated otter is found in natural habitats in Kota and Chittorgarh. Reaching around 1.2m in length and weighting between 7-10kg when fully grown, the smooth-coated otters generally live in groups of 8-12 animals in study area, with a blend of adults, sub-adults and pups.

![Image of Smooth-coated Otter](image_url)

Figure 1: An adult Smooth-coated Otter in River Chambal

2. Study Area

The Chambal River basin is spread over Chittorgarh, Bhilwara, Kota, Bundi, Baran, Jhalawar, Tonk, Sawi Madhopur, Karoli and Dhaulpur districts of Rajasthan. Otters can be seen in the Chambal River at various places in Chittorgarh, Bundi and Kota districts. Smooth-coated otters are sighted on the islands surrounded by water in Rana Pratap Sagar (Chittorgarh), Bhainsorgarh Wildlife Sanctuary (Chittorgarh), Jawahar Sagar Dam (Kota) and Kota Barrage (Kota) built on Chambal River. The study has been done by the research team in these areas. The sanctuary is mainly dry deciduous. Rawatbhata is located at about 50KM away from Kota city.
3. Methodology

During March 2019 to July 2022, the activities of Smooth-coated otters in Bhainsrorgarh Wildlife Sanctuary (Rawatbhata), Jawahar Sagar Dam and Kota barrage were monitored and captured regularly. During this period got an opportunity to meet some forest personnel and experienced wildlife as good sources of information. Available older literature was also studied. The survey was done by boat in Chambal River. Primary observations were made with a pair of binoculars (Nikon 12x50). To record the behaviour and number of Smooth-coated Otters, photographs were taken with DSLR camera and telephoto lenses (Nikon D7500 paired with Nikon AF-S Nikkor 200-500MM F/5.6E ED VR). Travelling, feeding, playing and social behaviour of the animal were directly observed during the investigation.

4. Observations

During field work carried out by the research scholars and research supervisor, the observed otters were swimming fast, changing directions by communication calls. It is common behaviour in Smooth-coated otter. Smoot-coated otters are social semi-aquatic mammals. They hunt in groups. They come out of their den after sunrise in the morning. They travel long distances in search of prey. Parents teach their pups to hunt. When in danger, parents alert pups through a whistling calls. When one otter in the group hunts, the other otters present in the group rush towards the prey and fight with each other. They do not like to eat their prey together. It hunts in the morning and evening mainly, but sometimes it hunts even at night as well. After coming out of the water, they spend 15-20 minutes grooming themselves by rolling over rocks and sand. Subadults are seen chasing each other on land or in water and play with one another. It likes to rest in the day time. The smooth-coated otters are mostly fish eater. The number of fish in River Chambal is in abundance, but sometimes they have also been seen eating crabs, molluscs and insects. There are many species of fish such as Tilapia, Catfish, Rohu, Catla, Common Carp, Mahasheer etc. in River Chambal. Due to greater populations of Tilapia fish in the river than other fish species, otters have been mostly seen eating Tilapia. It moves forward marking its territory through urination. It teases other animals coming in its vicinity.
territory like marsh crocodile, hanuman languor, stray dog and domestic cow. Sometimes they attack humans to protect their pups, when they see humans interfering with their habitat.

**Figure 7:** The Smooth-coated Otter catching prey

**Figure 8:** Fighting among group members for a prey

**Figure 9:** Subadult Otters playing with each other

**Figure 10:** Smooth-coated Otter family resting on sand

**Figure 11:** Otters marking their territory

**Figure 12:** Smooth-coated Otter biting a bull

**Figure 13:** Smooth-coated Otters teasing a Marsh crocodile
5. Result

The Chambal River is cleaner than other rivers in Rajasthan and remains full of water throughout the year. Sufficient number of prey is available in the river for the otters to feed. Due to the development of barrage and dam on River Chambal, their number has been restricted to a small area. Other reasons for the decrease in otter populations are poaching for pelts and illegal net fishing which sometimes kills otters. The waste from Kota Thermal Power Plant located on the banks of the River Chambal and the water from the dirty drains of the Kota district is directly dumped into the river. The smooth-coated otters cannot survive in the polluted water and migrate towards clean and unpolluted areas of River Chambal. Thus they can be designated as bio-indicators of unpolluted water. Areas of occupancy of Smooth-coated Otters colonies in the River Chambal reflect that River Chambal is still clean and polluted at its minimum.

6. Conclusion

The present study for assessment of the distribution of Smooth-coated Otter reveals that the River Chambal provides an ideal habitat for this rare species. Sufficient food and breeding sites are available in their habitat. If this species is not get protected, then the day is not far when it will go towards extinction species in Rajasthan.

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References


