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OTTERS UNDER PRESSURE

How WWF-India is working to improve knowledge and protection of otter populations in the Ganga river basin

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Map of the Ganga river basin

Introduction

India is home to three of the 13 species of otter found worldwide. These are the Eurasian or common otter (*Lutra lutra*), the smooth-coated otter *(Lutra perspicillata*) and the small-clawed otter (*Aonyx cinereus*); the first is listed as 'near threatened' and the latter two as 'vulnerable' on the IUCN Red List.[1] The common and small-clawed otter are found in the Himalayas, to the north of the Ganges and in southern India. The smooth-coated otter is distributed throughout the country from the Himalayas southward.[2]

WWF-India's primary focus is on the smooth-coated otter. Indeed, although the species is widely distributed and adapted to a variety of freshwater habitats, its conservation status isn't sufficiently documented and its population has been greatly reduced due to habitat loss and the depletion of their prey base. Funded by the HSBC Water Programme, WWF-India has started work to develop an atlas of otter distribution and threats, part of a wider advocacy strategy to increase protection for otters and their habitat.

A pair of smooth-coated otters

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What problem are we trying to address?

Although there is a lack of data about otter populations in India, indications point to severe fragmentation and rapid decline, in particular outside of protected areas.[3] The main threats to otters in India are: habitat loss due to wetland reclamation; infrastructure development, which isolates populations and can lead to inbreeding; reductions in otters' prey base (primarily fish) through overexploitation and water pollution; biomagnification of toxins; and hunting by fishers who view otters as competitors. Hunting to meet demand for pelts – largely from China – is also a major and growing problem, particularly affecting the smooth-coated otter. Studies have found that 50% of otter skins in China originate from India; analysis of otter seizures in Asia between 1980 and 2015 (representing over 5,000 otters) found that otter skins are typically smuggled from India to China through Nepal.[4]

The smooth-coated otter is listed under Schedule II (Part II) of the Indian Wildlife (Protection) Act 1972, affording it the second highest degree of protection available nationally. Despite this existing protection under Indian law, WWF-India believes there is an urgent need to upgrade the smooth-coated otter's legal protection to prohibit its trapping and killing. Listing the smooth-coated otter under Schedule I would afford the species greater protection. However, poor implementation and enforcement – in addition to relatively lenient punishments for illegal wildlife trade crimes – would still be challenges to contend with.

In terms of otter conservation, one of the main constraints is the lack of information about the species' current geographical spread and population size.[5] The documentation of past, present, and potential future distribution and abundance of otters is vital for understanding their population dynamics and planning effective species-oriented conservation programmes. WWF-India's main focus for otter conservation is on establishing otter species' status and distribution, on identifying crucial riverine stretches for immediate protection as otter habitat and on establishing well-defined protocols to ensure future population trends are properly monitored.[6]

What did we do?

Within the scope of the Rivers for Life programme, primarily funded via the HSBC Water Programme (2012-2017), WWF-India has been focusing on four main pillars: sustainable water management, biodiversity and habitat conservation, water stewardship and climate change adaption. Several areas of

Ganga River: upper reaches © Robin Darius / Felis

work indirectly contribute to otter conservation (in terms of habitat availability, prey base, water quality, etc.) via things like pollution reduction and environmental flow releases. The team is also currently working with the Uttar Pradesh Forest Department to create management plans for two protected areas which will benefit otters among other species.

POPULATION SURVEYS

Following on from otter work undertaken as part of the previous HSBC partnership, WWF-India surveyed otter distribution once as part of the HSBC Water Programme, in 2014. The survey was done as part of an environmental flows exercise, and involved a series of three seasonal surveys (winter, summer and during the monsoon) of otter distribution along the Ramganga River in non-protected stretches.

Otters are difficult to spot; riverbank surveys are therefore largely based on the identification of indirect but indisputable signs (mainly tracks and spraints) which otters leave in visible locations (e.g. boulders and dead logs) and in predictable places (e.g. under bridges, at junction of rivers or streams and exposed sandbanks). Otter populations are therefore not monitored as part of the annual biodiversity survey WWF-India undertakes. Indeed, the boat survey that allows the team to monitor dolphin and gharial population trends is not appropriate for otters.

PROTECTED AREAS

WWF-India is developing management plans to conserve aquatic biodiversity and habitats in two stretches of the Ganga River jointly with the Uttar Pradesh Forest Department and in consultation with local stakeholders and district administrations. One stretch is within the Hastinapur Wildlife Sanctuary and the other is within the Narora Ramsar site. The management plans focus on terrestrial management but also include provisions for species recovery, with a particular focus on aquatic species. This forms a departure from existing norms, where management has tended to focus solely on terrestrial habitats and biota. The management plans will benefit otters through their consideration of terrestrial management and threats to habitats generally, and will also directly benefit otters by including provisions for the reclamation of wetland sites which are potential otter habitat.

The Hastinapur Wildlife Sanctuary covers an area of 2,073km^2 and was established in 1986 to conserve grassland-wetland habitat unique to the Ganga River. A 2010 study came across a small otter population in the Sanctuary.[3] The otter population was mostly restricted to the Boodhi Ganga, the Ganga's old

Smooth-coated otters:

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riverbed, where periodic swampy patches form with habitat features favourable for otters. This area moreover is the most inaccessible to humans and the least disturbed within the Sanctuary, where threats such as encroachment and conversion to cultivated fields are significant. WWF-India, through the management plan, is advocating the government for increased protection of this area. Unfortunately, more recent surveys found that the Hastinapur Wildlife Sanctuary otter population no longer exists; however, WWF-India will continue its efforts to protect this potential otter habitat.

OTTER CONSERVATION ATLAS

WWF-India's primary otter-related work involves the development of an otter atlas, based on species occurrence records and threat mapping. The atlas will act as a reference for professional and amateur conservationists and other interested parties: at present, there is no single comprehensive reference point for information about Indian otters but rather only patchy studies often using different methodologies.

The atlas covers all three species of otter found in India. Compiling the atlas entails the collection of secondary information from literature reviews, expert reports and WWF field site reports nationally. Indeed, country-wide species surveys are problematic because of lack of time, financing and trained manpower. Otter experts and international conservation groups have contributed crucial information, which has to date been consolidated into species distribution and threat maps prioritising areas for immediate conservation attention.

If sufficient empirical data is gathered via the secondary information, predictive modelling might be used, which would help build understanding of how otter species' distribution might change based on different land use, climate change, water availability and other threat scenarios. This in turn would help inform conservation programmes.

The release of the otter atlas is planned for 2017. The atlas is written in English; however, WWF-India may also translate the executive summary or main findings into Hindi – the team is already producing species factsheets in Hindi.

Where will we go from here?

The atlas is written using accessible language to ensure that it is widely used, and it will form part of awareness-raising efforts; indeed, otters do not yet elicit as much interest within India as other perhaps more iconic species.[2]

WWF-India also aims for the atlas to be an advocacy tool, providing information about the species to help plan and justify conservation interventions and to help advise government regarding proposed developments in identified otter habitats. The atlas will also be an advocacy to help upgrade the legal protection status of the smooth-coated otter to Schedule I.

Ramganga River near Corbett Tiger Reserve © Gerald S. Cubitt / WWF

The atlas will provide evidence regarding the need to protect otter populations outside of protected areas, for example via the official designation of community reserves (buffer zones adjacent to existing protected areas that are used by communities for subsistence) or biodiversity hotspots. Indeed, although the best-conserved habitats with the most significant conservation value are national parks, wildlife sanctuaries and other protected areas, otter populations are also found outside these. However, it is not feasible for all otter habitats to be similarly designated; in addition, otters are known to have extensive home ranges, e.g. 17 km for male otters.[2] As such, community reserves and biodiversity hotspots offer good conservation opportunities. WWF-India is discussing with the Uttarakhand Forest Department the possibility of designating a 30 km stretch of the Ramganga River abutting the Corbett Tiger Reserve as a community protected reserve area.

FOR MORE INFORMATION

Contact the WWF-India team

Resources

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