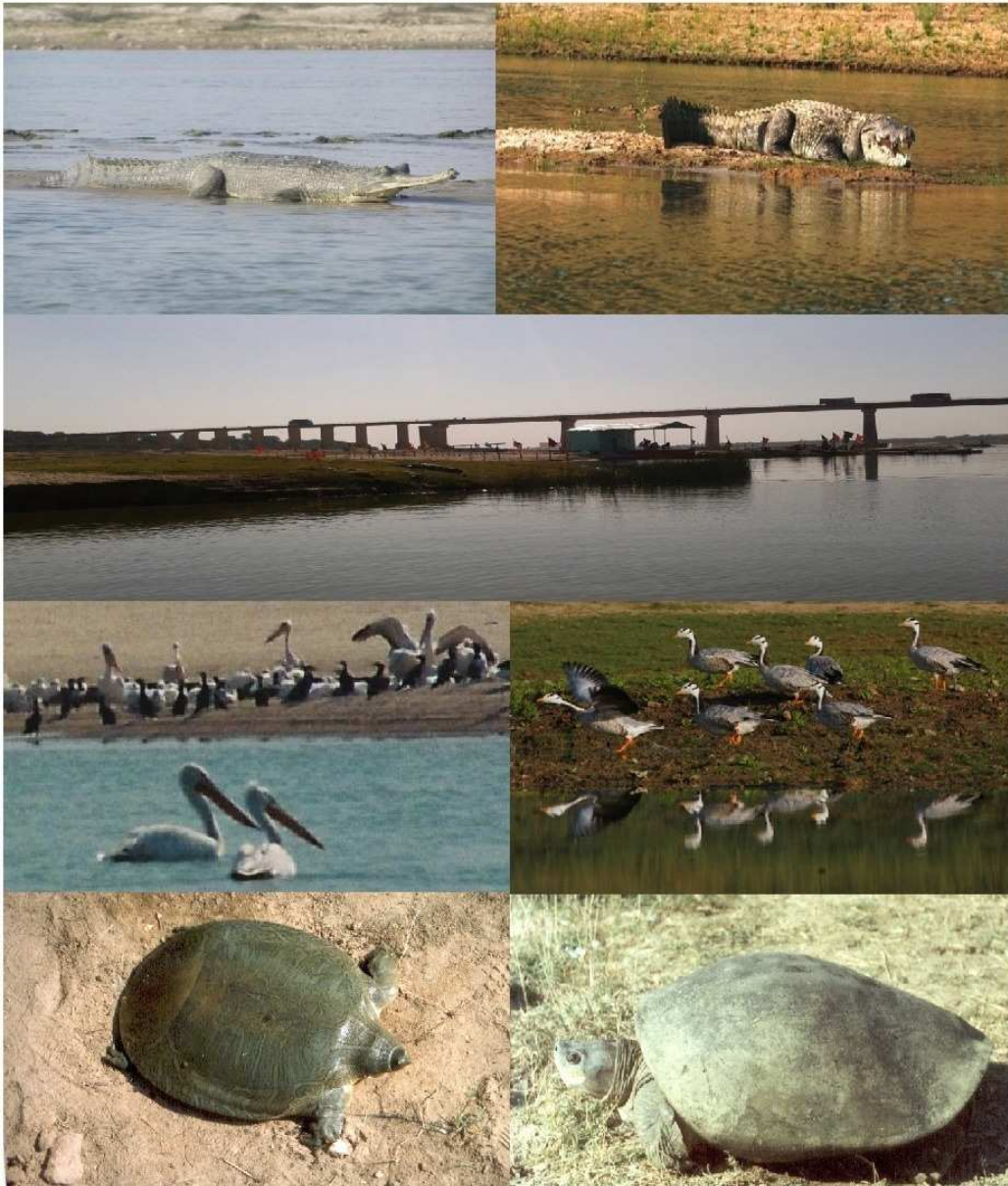


A Bibliographic Compendium of Wildlife Conservation and Research in the National Chambal Sanctuary, India

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“The Chambal River, a major tributary of Ganges River system in North India attracted both national and international researchers due to its rich biodiversity. This is an effort to provide a complete bibliography of all publications, reports and theses on wildlife and their conservation programmes from the Chambal River, which is declared as National Chambal Sanctuary for the conservation of Indian Gharial (*Gavialis gangeticus*) and other associated wildlife. This list may be incomplete, however, we will continue to curate all publications and update this bibliography accordingly”

R. J. RAO & R.K. SHARMA

The Chambal River : Natural phenomena

- The Chambal River, a tributary of the Ganges River, is a cleanest river and is recognized for its rich biodiversity.
- The Chambal River, one of the best remaining habitats for the gharial in its range, originates in the Vindhyan range near Mhow in Madhya Pradesh.
- It flows in a northeastern direction, passing through Rajasthan up to Pali and thereafter it flows in eastern direction, forming the boundary of M.P. and Rajasthan and M.P. and Uttar Pradesh.
- It joins the Yamuna River near Bhareh of Etawah District, Uttar Pradesh. The Yamuna River, in turn, flows in southeast direction, till it meets the Ganga River at Allahabad. Kali Sindh, Parbati, Banas and Kunoo are the important tributaries of the Chambal River.

Significant ecological and biological processes

- The habitat of aquatic wildlife in the Chambal River is characterized by expanses of open sand which is sparsely covered with a variety of herbs.
- The river-side vegetation is sparse in most of the southern side of the river. Both the banks are muddy, formed by erosion of ravines adjacent to the river and the river depth varies from 1 to 20 m. Most of these banks are used for extensive agriculture.
- At some places one bank is sandy and other bank is rocky. Rocks are also present in the mid-river islands. Because of monsoon high waters the sand banks alter considerably making the steep sand banks into flat sand banks. In some stretches both the banks are rocky with alluvial deposits.
- The river is deep and fast and at some places shallow riffle areas are present.
- The overall topography of the Chambal River indicated that most of the south Chambal River has rocky beds compared to north Chambal River, where extensive sand banks are present.

The significant natural habitat for biodiversity

- The important wildlife species present in the Chambal River are the Gharial (*Gavialis gangeticus*), the mugger (*Crocodylus palustris*), freshwater turtles (*Nilssonia gangeticus*, *N. hurum*, *Lissemys punctata*, *Chitra indica*, *Batagur kachuga*, *B. dhongoka*, *Pangshura tentoria* and *Hardella thurgii*), the Gangetic dolphin (*Platanista gangetica*) and the otter (*Lutra gale percipellata*).
- A variety of fish also occur in the Chambal River.
- Around 200 species of birds were identified in the National Chambal Sanctuary. Major species of birds are birds of prey, bar-headed goose, brahmini duck, teals, common cranes, cormorants, egrets, black and white ibises, brown headed gulls, painted storks, black necked stork, white necked stork, common crane, Sarus cranes, herons, Indian skimmer, spoon bills, pelicans etc.
- Terrestrial animals present in the ravines of the sanctuary are Tiger (occasional visitor) land monitor lizard, variety of lizards and snakes, sambhar, spotted deer, jackal, hyena, fox, wolf, monkeys, langur, porcupine, hares, desert cat, blue bull, wild boar, different species of bats, etc.

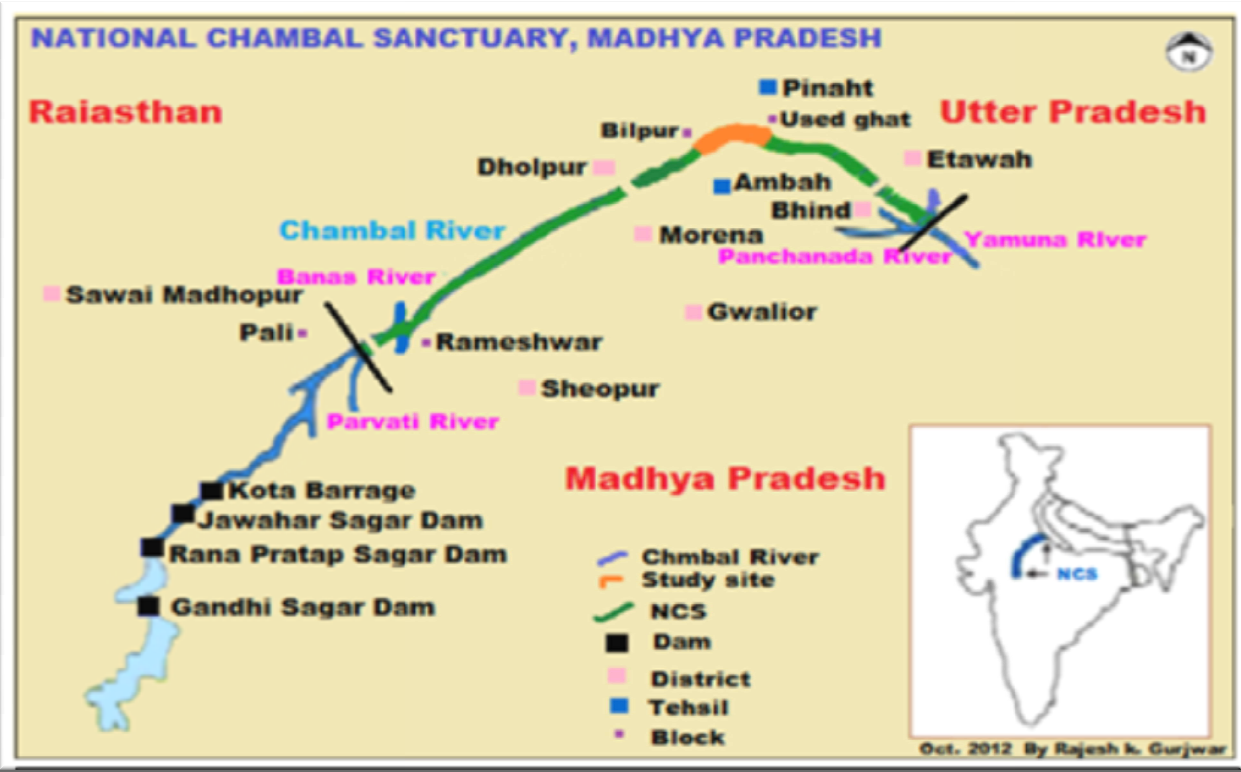
Integrity

- During 1978 the Chambal River was declared as National Chambal Sanctuary under Crocodile Project with an aim to provide fully protected habitat for conservation and propagation of gharial crocodilian and other wild animals.
- The National Chambal Sanctuary extends over the Chambal River from Jawahar Sagar Dam to Kota barrage and after a gap of 18 km. free zone, from Keshoraipatan (Raj.) through Pali to Pachanada (U.P.) where Kunwari, Pahuj and Sindh rivers form a confluence with the Yamuna River.
- The total length of the river inside the sanctuary is about 600 km. The width of the river that is included inside the sanctuary is 1000 m. from either bank in Rajasthan and Madhya Pradesh. Uttar Pradesh has a greater width totaling to an area of 635sq. km.

- Geographically, the sanctuary lies between the latitude $25^{\circ} 35'$ N and $26^{\circ} 52'$ N and longitude $76^{\circ} 28'$ E and $79^{\circ} 01'$ E.

National Chambal Sanctuary

- The National Chambal Sanctuary is unique in biodiversity richness.
- National Chambal Sanctuary is the Northern Gateway of Madhya Pradesh wildlife conservation and ecotourism.
- The sanctuary is an ideal habitat for many aquatic wild animals, terrestrial animals and migratory species of waterfowl.
- The Sanctuary holds the largest survival population of Gharial in the country and in the world.
- The Sanctuary is the home for three National Animals – Tiger, Dolphin and Peacock
- Under the Indian Crocodile Project ‘grow and release’ technique is adopted in the Sanctuary. Large numbers of captive reared gharial were released in the Chambal River.
- The National Chambal Sanctuary is the study area for large number of research programmes in the Country.
- Governments are taking all measures for conservation of crocodiles and other animals.
- The Chambal Sanctuary deserves a special care for management as the sanctuary is comparatively a best area for conservation of aquatic animals.
- The Crocodile conservation programmes in the National Chambal Sanctuary are very well taken by International Conservation Agencies.
- The success of the crocodile programmes was recorded in the Encyclopedia of Britannica.



Research

- The Wildlife Institute of India, Dehradun; Jiwaji University, Gwalior, Lucknow University, BabaSaheb Bhimrao Ambedkar (Central) University Lucknow, Gurukul Kangri University, Haridwar, Kota University, Kota, Chhaatrapati Sahuji Maharaj University, Kanpur, Banaras Hindu University, Varanasi and Aligarh Muslim University, Aligarh, MCBT, WTI, WCT, BNHS are conducting research studies on various aspects of ecology, behaviour and management of wildlife in the National Chambal Sanctuary.
- A field research station was established at Deori Gharial Rearing Centre, M.P. during June 1983 by the Crocodile Research Centre of the Wildlife Institute of India.
- Jiwaji University Biological Station was established at DGRC during 2003 by the Jiwaji University, Gwalior

Research studies

- Behavioural studies
- Sympatric distribution and habitat sharing
- Food-web analysis
- Habitat evaluation – GIS & Remote sensing techniques
- Economic value analysis
- Eco-tourism prospects
- Socio-economic analysis

Publications

Crocodiles:

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