

## Recent Threat to the Chambal River's Gharials Sand Mafia, Dams and Uncoordinated Water Release Make It Worse

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More than 85% of the total global population of gharials (*Gavialis gangeticus*) which are critically endangered, live in the Chambal region. However, they are facing a major threat from the organised sand mafia. Jerry W. Lang, researcher from the University of Minnesota and senior scientific advisor of the Gharial Ecology Project, who has been doing a study on them said illegal mining, coupled with irregular flow of water from dams in Rajasthan have caused high mortality among these reptiles, pushing them closer to extinction.

"There are just 2,500 gharials left in the world, of which 2,000 alone live in the National Chambal Sanctuary. The Chambal Gharials are likely the only wild population that continues to live and thrive in an intact, large riverine habitat, where conditions are still favourable. However, this unique group of crocodiles is under threat from various sides, with sand mining the most persistent and the most damaging," Lang said.

Besides water extraction and dam proposals, the most persistent threats are illegal fishing and sand mining. In the past several years, there has been an exponential increase in "industrial scale" sand mining on the extensive sand banks and the sand bars, primarily in Madhya Pradesh and Rajasthan. "Sand miners have become bolder and they are even ready to kill if challenged. Earlier they used to run on seeing us, but now they stay there do mining in front of us using JCBs," Lang added.

The researcher said that mining has become an everyday affair between September and June, and stops only during monsoon. "At a communal nest site where one of the gharials nested last season (2015), sand mining was happening 24/7 during the pre-monsoon months, with 35-40 tractors and wagons plying up and down," Lang said.

There are other threats as well. "There has been an increased pressure on taking out water from the Chambal for irrigation. Legally it can be done only during high water, but it is being done all the time. Rajasthan has proposed to build another dam on the river and if that happens, then Chambal will not remain a big river. Gharial is a big river crocodile. You can guess the impact of all this on its chances of survival," said Lang.

Absence of coordination between states on release of water from dams has compounded the problem. The decision has been left to dam engineers who release water when there

is a high volume. The resulting flash flood destroys nests," Lang said.

The Gharial Ecology Project, run by Madras Crocodile Bank Trust in collaboration with Romulus Whitaker, award-winning conservationist and film maker, was started after more than 110 gharials died in 2007-2008.

Besides Chambal, the remaining populations are found at Jim Corbett and Katarniaghat in India and in parts of Nepal. At Chambal, some 200-300 nests are produced each year, with more than 80% hatching, resulting in approximate 8,000 hatchlings yearly. However, their survival rate is just 2-3%.

Chambal river was declared a sanctuary in 1978 to provide a fully-protected habitat for conserving the gharial and other wildlife. The total length of the river inside the sanctuary is about 600 km.

### Statement about ownership and particulars about *Bionotes*. Form-IV (See Rule 8)

1. *Place of Publication* - Aligarh (U.P.).
2. *Periodicity of Publication* - Quarterly.
3. *Printer's name; nationality and address* - Dr. R.K. Varshney; Indian; Raj Bhawan, Manik Chowk, Aligarh.
4. *Publisher's name; nationality and address* - Dr. R.K. Varshney; Indian; Raj Bhawan, Manik Chowk, Aligarh.
5. *Editor's names; nationality and addresses* -  
(i) Dr. R.K. Varshney; Indian; Raj Bhawan, Manik Chowk, Aligarh.  
(ii) Prof. S.K. Saxena; Indian; 135-P, Sector 56, Devendra Vihar, Gurgaon.
6. *Name and addresses of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total capital* - Dr. R.K. Varshney; Raj Bhawan, Manik Chowk, Aligarh.

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Dated the 1st March, 2017.

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