

INDUS AND GANGES RIVER DOLPHINS ARE TWO DIFFERENT SPECIES

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

Closely protected: Dolphin tissue or sample cannot be transferred outside the country without permission. | Photo Credit: [Mansur-WCS Bangladesh](#)

“What’s in a name? A rose by any other name would smell as sweet,” wrote Shakespeare. But ask a taxonomist and she will tell you how naming plays an important role in understanding and organising the diverse life forms on our planet. Now, a new study has once again shown the importance of taxonomic classification. Detailed analysis of South Asian river dolphins has revealed that the Indus and Ganges River dolphins are not one, but two separate species.

Currently, they are classified as two subspecies under *Platanista gangetica* and this needs a revision. The study estimates that Indus and Ganges river dolphins may have diverged around 550,000 years ago.

The international team studied body growth, skull morphology, tooth counts, colouration and genetic makeup and published the findings last month in *Marine Mammal Science*.

The corresponding author of the study Gill T. Braulik from the University of St. Andrews, U.K. explains about the DNA analysis to *The Hindu*: “To collect mitochondrial DNA, one would normally use skin samples or blood and hair. But in this instance, we didn’t really have access to fresh tissue samples. So we got ancient DNA out of skulls and skeletons, which were 20 to 30 to even 150 years old. Looking at the sequences in the DNA, it was quite clear that the Ganges dolphins and the Indus dolphins were quite different.”

The paper notes that “comparative studies of animals in the two river systems are complicated by the fact that they occur in neighboring countries separated by an unfriendly international border...Thus, sharing of samples or data between countries is extremely challenging.”

One of the authors of the paper Ravindra K. Sinha from Patna University explains: “The Ganges dolphin is a Schedule I animal under the Indian Wildlife (Protection) Act 1972, and has been included in Annexure – I of Convention on International Trade in Endangered Species (CITES), so you cannot transfer any tissue or sample to foreign countries without getting CITES permission from the Competent Authority of Government of India.” Another reason was that finding dead animals were uncommon because they either float downstream or sink, and museum collections worldwide contain only a few specimens and most of them are damaged.

The Indus and Ganges River dolphins are both classified as ‘Endangered’ species by the International Union for Conservation of Nature (IUCN). Dr. Sinha who has been studying Ganges dolphins for almost four decades explains that physical barriers such as dams and barrages created across the river reduced the gene flow to a great extent making the species vulnerable; He adds that river flow is also declining very fast as river water is being diverted through the barrages and this has affected the dolphin habitats. “Previously fishermen used to hunt dolphins and use their oil as bait, but though that practice of directed killing has stopped and they are not being hunted intentionally they end up as accidental catches. Also, before the 1990s, we had oar boats and country boats; but now mechanised boats are also causing accidental injury to the dolphins.”

Being a part of the Ganga Action Plan, Dr. Sinha monitored a large stretch of the river and noted that both point and non-point sources of pollution are affecting the dolphin habitat. “Recently we saw the Chinese river dolphin go extinct. Though the Indian government has given legal protection to the dolphin, more ground action and close work with local communities are needed to help them survive,” adds Dr. Sinha.

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