



📷 One single alligator gar, however, can not do any significant damage to Dal Lake, says expert. Photo: Irfan Amin Malik

On May 11, 2023, a non-native alligator gar fish, known for its crocodile-like head and razor-sharp teeth, was found in one of Kashmir's idyllic lakes, raising apprehensions about its impact on the native fish species.

The rare, carnivorous fish was caught by the Jammu and Kashmir Lake Conservation and Management Authority (LCMA) during the routine dewatering process near Sher-e-Kashmir International Convention Centre (SKICC), the main venue for the Group of Twenty (G20) tourism meeting in Srinagar, the summer capital of Jammu and Kashmir.

The alligator gar is a close relative of the bowfin species. It is a ray-finned euryhaline fish and is one of the biggest freshwater fish in North America and the largest species in the 'gar' family.

The finding sent alarm bells ringing among the scientists; they fear that the presence of non-native fish species will spell doom for the eco-fragile flora and fauna of the waterbody.

The presence of the carnivorous fish in the lake has surprised not just residents but also the scientists and authorities, who are now trying to ascertain its effects on the ecology of Dal Lake, the second-largest and the most famous lake of J&K.

Archana Sinha, principal scientist at Central Inland Fisheries Research Institute Barrackpore, Kolkata said alligator gar fish is not an Indian species and normally found in northern and central

America and also in Mexico. "But in recent years it was also found in some parts of India like Bhopal, Kerala and from the waterbodies of Maharashtra and Kolkata."

"Being a predator fish and a carnivore, it can eat all types of fishes and therefore poses a threat to native species and to the overall ecosystem. For example, gar fish grows rapidly and has a life span of 20-30 years. It would kill all fingerlings of fish species already present in the waterbody and has a tendency to destroy natural aquatic life of Dal Lake," said Sinha.

It is too early to determine the actual reasons of how alligator gar fish was found in Dal, Masood Ahmad Khan, an official from Research and Monitoring Section J&K Lake Conservation & Management Authority (LCMA), told this reporter. "But we have taken up the matter with the concerned fisheries department and the fisheries division of Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST) to conduct an investigation and comprehensive studies to ascertain how and why the exotic fish reached the waterbody."

Khan, who works as an executive engineer at LCMA, added that a total 12 native fish species are found in Dal and any exotic species can be dangerous to the indigenous fish species.

Dal, along with the adjoining Nigeen lake, is a major source of fresh fish consumed by the people of Kashmir and outside.

The "crocodile type fish" have caused a lot of panic among the fishing community whose livelihoods have depended on the waterbody for decades, said 24-year-old boatman Imran Ahmad Mir. "No one is even touching the water fearing an attack from the gar fish."

Dal has already suffered extensively over the past four decades due to increasing encroachment, human interference and pollution.

The lake, which is linked to the livelihood of thousands, has witnessed extreme loss in water quality, mainly because of anthropogenic pressures such as discharge of untreated sewage. Dal Lake has already shown the impacts of warming temperatures, variation in hydrological regime, excessive nutrient load and invasion of non-native species, a 2022 study by the scientists of SKUAST Kashmir showed.

Read more: 'Alligator Gar discovery a signal to revise list of fish introduced to India' (<https://www.downtoearth.org.in/news/wildlife-biodiversity/-alligator-gar-discovery-a-signal-to-revise-list-of-fish-introduced-to-india-62386>)

Alligator gars feed on other fish and are thrown in Indian waterbodies knowingly or unknowingly, said Sinha. "Gar fishes are euryhaline and can grow up to eight feet. They can be dangerous for indigenous fish species. During winter, they can even sustain in the cold waters of Dal because the temperature they mostly live in is 11-23 degrees Celsius."

Such types of fishes are imported into the country to be reared in aquariums, she added. But when the fish starts growing in size and kills other fish, aquarium hobbyists often release them in the local water bodies, putting the local biodiversity at stake, the scientist noted.

"You may see gar fishes in Indian states where aquarium trade is thriving. For example, in Kolkata's Galiff Street pet market, more than 100 exotic species including gar fish are openly sold on Sundays. The Government of India has only allowed 92 species which can be imported and the gar fish is not included in that list," she adds.

The Indian Biological Diversity Act 2002 prohibits the presence of any kind of invasive fish species that can be hazardous to natural fish fauna, Khan said. "We are checking the CCTV footage and also investigating how the gar fish was found in Dal. Any violator found throwing the non-native fish in Dal will face action under Indian Biological Diversity Act 2002."

One single alligator gar, however, can not do any significant damage to Dal, Irfan Khan, head of the Department Fish Genetics and Biotechnology, SKUAST Kashmir, told this reporter.

"Alligator gars are undoubtedly a serious threat to local biodiversity but only if they become adaptive in a particular environment," he said.

Two weeks after gar fish was found in Dal, a sudden death of a large number of fish in Dal Lake following heavy spells of rain last month triggered panic among locals even as experts.

However, LCMA's Khan rules out the gar fish as a reason for the death of native fish species. "The death of some fish species was likely caused by thermal stratification. There has been a

fluctuation in temperature due to which many fishes have died in the past also.”

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Turn off taps on poachers: Financial crimes linked to illegal wildlife, timber trade in EU going unpunished, flags report

Criminal assets remaining in the hands of poachers, giving them the liberty to invest in more illicit operations

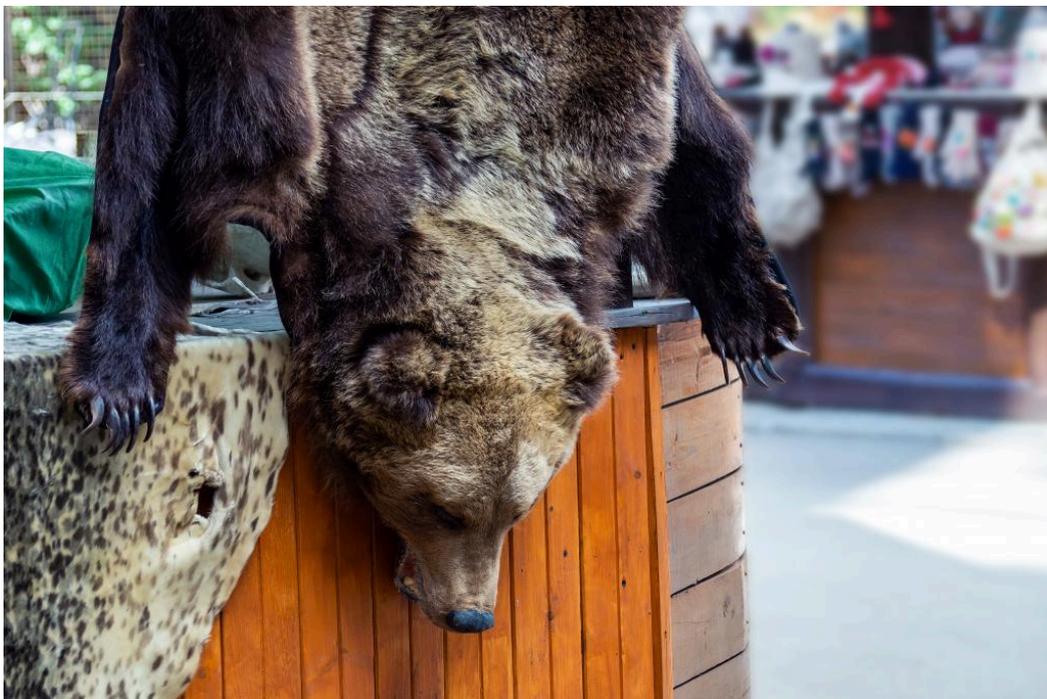


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By Susan Chacko (<https://www.downtoearth.org.in/author/susan-chacko-2310>)
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Inadequate financial investigations of wildlife trafficking in the European Union can give rise to illegal businesses, said a new report.

Financial investigations and heightened awareness by the private financial sector can expose serious crimes associated with wildlife and timber trafficking that would otherwise largely go undetected in the European Union, the report by TRAFFIC, a wildlife and plant conservation non-profit, and World Wide Fund for Nature (WWF).

Wildlife Money Trails

(https://www.traffic.org/site/assets/files/21914/wildlifemoneytrails_-_final.pdf) focuses on helping law enforcement authorities and financial institutions uncover financial crimes related to wildlife and timber trafficking in the EU. The report contains 16 case studies, which amounted to 18 million euros of illicit profits.

Wildlife and timber trafficking often involves transnational organised crime networks and generates significant illicit proceeds running into billions each year. Despite the seriousness of this criminal activity, related financial investigations and asset recovery approaches remain largely underutilised in the EU, the report mentioned. Investigations and prosecutions of wildlife trafficking still rely primarily on charges for poaching or trafficking, it added.

Wildlife criminals are, therefore, not punished for the financial crimes they have committed, and their criminal assets remain in their hands, allowing them to further invest in their illegal business and expand their operations.

Most of the wildlife traffickers are "first and foremost interested in making money" and it is the profit that drives, helps sustain and expand their business, said Emilie Van der Henst, senior manager, wildlife trafficking, TRAFFIC and WWF.

The fight against wildlife trafficking cannot be won without targeting what is at the core of the motivation of traffickers, she added.

The report seeks to help identify the higher-level criminals within a network as well as estimate the amount of money generated by criminal activity, which can be used for asset recovery, the researchers wrote.

Seizing the assets of criminals is the key to weakening the lucrative smuggling business and preventing further business expansion, emphasised the report.

Corruption facilitates trafficking

Criminal networks rely on corruption and bribing of public officials in origin, transit and destination countries to facilitate the trafficking of illegally sourced wild fauna and flora. The payment of bribes is done to either obtain falsified documents or avoid monitoring and inspections to allow the safe passage of wildlife or timber through checkpoints and across borders, the report added. This can take place in exporting, transit and importing countries.

Criminals responsible for wildlife and timber trafficking have been known to establish contacts with local CITES authorities and other relevant authorities to obtain falsified permits or to falsify the origin of the wildlife.

In 2016, INTERPOL estimated the global cost of corruption in the forestry sector to be in the order of 26.9 billion euros annually. Analysis conducted by INTERPOL identified corruption as occurring most commonly at the point of harvest (50 per cent of cases), followed by road transport (23.1 per cent of cases) and at the processing plants (26.9 per cent of cases).

One of the case studies included in the report is of the seizure of furniture imported into Belgium made from Indian Rosewood (<https://www.downtoearth.org.in/news/wildlife-biodiversity/india-demands-removal-of-rosewood-from-cites-62727>). The estimated value of the hauls was 3,267,419 euros.

The timber products (furniture) were imported from India by a Belgian furniture company, without valid CITES export or import permits. The shipping documents falsely claimed the imported furniture was manufactured from non-CITES species.

Another case study was of a Swedish pet shop used to trade protected species from Asia. The suspect was the owner of a pet shop near Stockholm, which was a registered business.

In May 2021, police executed a search warrant on the premises of the pet shop. During the search, police found the suspect in possession of a large number of CITES-listed species of reptiles, without the correct documentation.

In the EU Action Plan against Wildlife Trafficking (https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_6581) launched in November 2022, the European Commission called for systematically launching financial investigations in organised crime investigations and asset recovery procedures. The new action plan builds on the previous EU action plan against wildlife trafficking (2016-2020).

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