

Yangtze finless porpoises in peril

Survey finds that the freshwater mammal is in serious decline.

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Fishing, pollution and other human activities along the Yangtze River in China are driving yet another species of freshwater cetacean to the brink of extinction. That is the conclusion of a six-week survey of the river's middle and lower stretches by the Chinese Academy of Sciences' Institute of Hydrobiology (IHB) in Wuhan and the conservation group WWF in China.

The final results of the survey will be announced in March. But the preliminary findings are worrying: the survey team spotted fewer than half of the Yangtze finless porpoises (*Neophocaena phocaenoides asiaeorientalis*) that were seen during a similar expedition in 2006, which found 1,225 living in the river¹.

"This is really bad news," says Wang Ding, an ecologist at the IHB who is the survey's chief scientist. "The finless porpoises are doing much worse than previously thought along the Yangtze mainstream."

The Yangtze finless porpoise is one of the world's few remaining freshwater cetaceans. It is found only in the Yangtze, as well as in two adjoining lakes, called Poyang and Dongting. Scientists hope that the porpoises can avoid the same fate as the Yangtze river dolphin, or baiji (*Lipotes vexillifer*), which was declared effectively extinct after the 2006 survey.

Endangered ecosystem

The latest survey also found that a population of about 450 porpoises in Poyang Lake has been stable for the past six years. But only 90 of the animals remained in Dongting Lake, a decline of 40% since 2006. This means that there is a total of only around 1,000 finless porpoises in the Yangtze River basin — making them even rarer than giant pandas in the wild.

"Losing these big, top carnivores in the Yangtze is a pretty good indication of the terrible state of the river ecosystem," says David Dudgeon, an ecologist at the University of Hong Kong in China, who was not involved in the survey.

"Intense human impact is to blame," says Lei Gang, director of WWF China's freshwater programme. "The conflict between conservation and economic development along the Yangtze is overwhelming."

Overfishing has caused a big decline in the porpoises' food sources, says Wang, and the animals are vulnerable to unregulated fishing methods such as electro-fishing, which involves sending electrical currents into the water to stun fish before they are caught.

Pollution problem

Pollution is another major, long-term threat, says Dudgeon. The Yangtze, regarded by Chinese people as their 'mother river', supports 40% of the country's human population, and its riverbanks are lined with large cities, factories and power plants. According to Dudgeon, about 20 billion tonnes of waste are discharged into the Yangtze every year. "This doesn't even include diffuse pollution from agriculture or pollution caused by ships," he says.

Like other cetacean species, the Yangtze finless porpoise uses sonar for navigation, ranging and foraging. But the high density of shipping along the Yangtze creates high levels of acoustic pollution, which interferes with the animals' sonar. "This affects their feeding and many are also wounded or die because of ship strikes," says Lei.

Other human activities such as dam building, land reclamation and sand dredging have contributed to large-scale habitat loss and degradation in the Yangtze River basin in recent decades, says Lei.



Peter Parks/Getty

The Yangtze finless porpoise is in decline in the wild, with the latest estimate suggesting it might be critically endangered.

The Yangtze finless porpoise is currently listed as an endangered species by the International Union for Conservation of Nature. “The

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new estimate may qualify them as critically endangered,” says Wang. “If the situation does not improve significantly, they may follow the fate of baiji in 15 years.”

Researchers and conservationists have appealed to the State Council, China’s cabinet, to elevate the porpoises from class II to class I protected species status – which would give more legal heft to preservation efforts – and to create more porpoise reserves. They have also called for better enforcement of waste-discharge regulations, and suggest reducing boat traffic, regulating fishing equipment or even introducing a fishing ban in the river.

Protecting river ecosystems is not just about saving charismatic animals such as the finless porpoise, says Wang. “Ultimately, it’s about our own existence. Rivers that are too sick to support a healthy ecosystem would be also unsuitable for human use.”

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References

1. Zhao, X. *et al. Biol. Conserv.* **141**, 3006–3018 (2008).