World's only freshwater porpoise on brink of extinction

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There's now only one cetacean species to be found in the Yangtze river, and it is in serious danger of extinction. The conservation status of the Yangtze finless porpoise – the world's only freshwater porpoise – has been upgraded to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species's highest risk level: critically endangered.

In 2007 the Yangtze river dolphin was declared extinct, making it the first cetacean to disappear thanks to human activity. It seems the porpoise might not be far behind.

"There's been a massive-scale and exceedingly rapid decline," says <u>Sam Turvey</u>, a zoologist at the Zoological Society of London and member of the <u>IUCN Cetacean Specialist Group</u>.

"This is big news and a wake-up call to the world to try to get it right for Yangtze cetaceans a second time round."

The Yangtze finless porpoise is a subspecies (*Neophocaena asiaeorientalis asiaeorientalis*) of a marine species, the narrow-ridged finless porpoise, and has unique ecological adaptations to living in a radically different aquatic environment.

"So if it disappears then the river can't be repopulated by a different, marine-adapted taxon," says Turvey. "Current estimates suggest that the two subspecies diverged over a million years ago, and there is no genetic exchange between them. It's quite possible that the Yangtze population should be considered as a distinct species."

Turvey and colleagues from the Chinese Academy of Sciences <u>used records of dead and</u> <u>stranded porpoises to model the porpoise population in the Yangtze</u>. They conclude that the population crashed by 52 per cent between 1991 and 2006, and estimate at least a 6.4 per cent

decline per year during that time. On this basis they predict that the porpoise will go extinct in a matter of decades.

Startling decline

A more recent survey at the end of 2012 shows an even more startling decline. "In 2008 we estimated a population of 1100-1200 in the main river, whereas the end-2012 survey had a population estimate of only around 500 animals," says Turvey. There may be a few hundred more in interconnected lake systems. These results have prompted the IUCN to label the porpoise as critically endangered.

Boat traffic on the Yangtze – the "golden channel" of central China – services the needs of hundreds of millions of people, and has been increasing steadily. From the 1990s onward, deaths of porpoises have been increasing, through collisions, pollution and accidental catch from fishing.

"Collisions with heavy ship traffic are more important as a threat than previously appreciated," says Turvey, "but they are extremely difficult to manage given China's ongoing economic growth that's partly dependent on the use of the Yangtze as a shipping route."

Given the scale of the problem, the most realistic option for saving the porpoise looks like a sort of semi-captive breeding programme.

"In particular the establishment of viable breeding populations of porpoises in oxbow lakes adjacent to the main river channel, which are ecologically very similar to the Yangtze environment but can be far better protected," Turvey says.

The only other cetacean classified as critically endangered is the <u>vaquita</u>, the <u>Gulf of California</u> <u>porpoise</u>.

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