The loss of the baiji

Jennifer Marohasy

You have probably never heard of the baiji—the graceful, grey dolphin endemic to the Yangtze River with tiny eyes and a long narrow beak. If you ever visit China, chances are you will never see one.

The baiji may be extinct. A survey carried out in March this year by a team of experts from China, the US, UK and Switzerland failed to locate a single baiji. The last confirmed sighting was in September 2004. The baiji, *Lipotes vexillifer*, may be the first species of cetacean—whale, dolphin and porpoise—to become extinct in modern times. The extinction will have taken place at a time of unprecedented interest and concern for their large relative, the minke whale.

It is perhaps a sad reflection of humanity's inability to prioritise effectively on the basis of need, that so many resources and so much publicity has been devoted to 'saving whales', while the fate of this small freshwater cetacean has gone mostly unreported.

Indeed, just last summer, Greenpeace sent two ships to the Antarctic to save minke whales. We saw images on national television of young activists in rubber inflatables manoeuvring between Japanese whaler and whale. But minke whales are not about to become extinct. In fact there are hundreds of thousands, if not millions, of minke whales.

In terms of the world's cetaceans, there is no greater need than a plan of action to save the freshwater dolphins and porpoise that are just hanging on in Asia's rivers. This includes the Gan-

Jennifer Marohasy is a Senior Fellow with the Institute of Public Affairs.

ges, Indus and Irrawaddy dolphins and the finless porpoise.

It has been argued that the baiji are the most important species within this group because the baiji is a whole separate genus. Randall Reeves, Chair of the Cetacean Specialist Group at the IUCN (International Union for the Conservation of Nature), has suggested that their disappearance would be like the 'snapping off a complete branch from the tree of mammalian radiation'.

Dr Reeves believes that a small number of baiji are surviving at low population densities and that funding is needed for an ambitious plan to find, capture and move them to a semi-natural reserve. He believes that it is still possible to establish a breeding population of baiji in the relatively protected environment of the Tian-e-Zhou oxbow. This is a 21-kilometre long stretch of water adjacent to the Yangtze River.

But not everyone agrees, and it's not the first time that a plan to capture and move the baiji has been promoted.

In 1995, a team of 70 people and 22 boats searched the lower Yangtze for baiji. The plan was to establish a captive breeding programme at the Wuhan Institute of Hydrobiology and also to establish a small population in the Tian-e-Zhou reserve. Several baiji were sighted but none successfully captured.

The Baiji Conservation Aquarium at the Wuhan Institute was completed in 1992 following a grant from the World Wide Fund for Nature and the Endoshima Aquarium in Japan. But when two American scientists, Donald Hoard and Stefanie Watcher, visited just three years later, they reported that it was in a state of 'anonymity and neglect'. The main aquarium tank was

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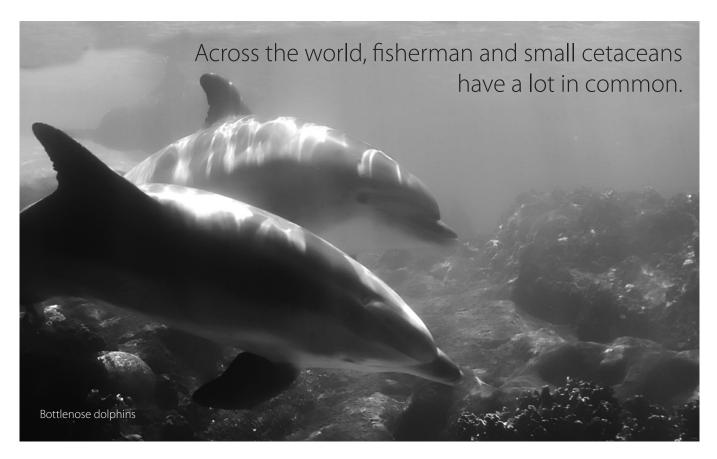
empty and a single adult baiji was being kept in a small circular pool. They reported that the pool was not clean, filtration apparently difficult because of power outages.

In a recent issue of *Conservation Biology*, Professor Guang Yang of Nanjing University wrote that saving the baiji is essentially a lost cause and that available resources should now be spent on saving the finless porpoise—the only other species of cetacean in the Yangtze River

There are perhaps 2,000 finless porpoises, *Neophocaena phocaenoides*, in the river and a breeding population of 26 porpoises has been successfully established in the Tian-e-Zhou reserve.

Illegal fishing (including fishing in this nature reserve) is an ongoing source of concern. Set net, poisoning, dynamite, rolling hook (lines of iron hooks set across the flow of the river) and electro-fishing are officially banned along the entire length of the Yangtze River, but these fishing practices are reportedly still widely practised.





The new Swiss-based Baiji.org Foundation is planning to employ 'skilled baiji guards' to enforce the fishing legislation, including through daily patrols of the Tian-e-Zhou reserve. In reality, this and other initiatives proposed to 'save the baiji' are likely to be of more benefit to finless porpoises given that this is the species which currently inhabits the reserve.

A recurring theme in freshwater dolphin and porpoise conservation across Asia is 'accidental death in fishing gear'—particularly entanglement and drowning in driftnets and gillnets.

Next summer, instead of heading to the Antarctic, Greenpeace activists could perhaps launch their inflatables into the Yangtze and other Asian rivers to highlight some of these issues.

A project initiated by New-Zealand born Isabel Beasley titled 'The Mekong Dolphin Conservation Project' is focused on saving the last 170 Irrawaddy dolphins in the Mekong and appears to now have the support of local communities in southern Laos, Cambodia and Vietnam, James Cook University in Australia, the Cambodian Department of Fisheries and the Cambodian

Prime Minister.

Meanwhile, in Burma, the Whale and Dolphin Conservation Society (WDCS) is working with the local Department of Fisheries to protect what is known as the human–dolphin cooperative fishery in the Ayeyarwady River. Gill netting will be illegal in a 70-kilometre stretch of the river where cast-net fishermen traditionally work with dolphins.

It is an example of inter-species mutualism. The local fishermen tap the side of their boats asking the dolphins for help. If the dolphins agree, together they corral the fish towards the shore. The dolphins will signal again when it is time for the fishermen to cast their nets. The dolphins feed on the fish momentarily stuck on the mud bottom after the net is pulled up.

Across the world, fisherman and small cetaceans have a lot in common. Their survival is dependent on a sustainable fishery, which in turn is dependent on reasonable water quality.

Earlier this year, ten Irrawaddy dolphins, eight of them calves, were found dead in the Mekong River, with pollution, rather than the usual 'accidental death in fishing gear', considered the most likely cause of death.

The next 50 years is likely to be a period of unprecedented economic and population growth in Asia. This will place tremendous pressure on the world's resources, but particularly on the rivers of central and East Asia. The species of freshwater cetacean unique to this region are unlikely to survive if, like the baiji in Wuhan in 1995, they are left in a state of 'anonymity and neglect'.

Last year marked ten years since Donald Hoard and Stefanie Watcher visited Wuhan. Last year the Baiji Conservation Aquarium at the Institute of Hydrobiology, through the Baiji.org Foundation, announced the birth of the first-ever freshwater cetacean in captivity. The Aquarium announced the birth of a healthy Yangtze finless porpoise.

It may be too late for the baiji, but surely this is a sign of hope for Asia's other freshwater cetacean.

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