

Scientists uncover new dolphin species in Australian waters

November 21 2008

(PhysOrg.com) -- Marine mammal experts have uncovered a new species of dolphin in Australian waters, challenging existing knowledge about bottlenose dolphin classifications and highlighting the country's marine biodiversity.

The researchers, from Macquarie University and Monash University, used genetic methods to identify the new dolphin species, and have had their findings published this month in the journal *Molecular Phylogenetics and Evolution*.

Dr Luciana Möller, of the Marine Mammal Research Group and the Molecular Ecology Lab at Macquarie University's Graduate School of the Environment, led a study which found that the coastal bottlenose dolphins from southern Australia should in fact be classified as a new species, rather than considered one of the recognised bottlenose dolphin species.

There are currently two recognised species of bottlenose dolphins and both are found in Australian waters: the common bottlenose dolphin generally found in Australia's offshore waters, and the Indo-Pacific bottlenose dolphin, found in coastal waters.

Dr Möller said that it is difficult to distinguish between some species of bottlenose dolphins using only external body features.

"This group to which bottlenose dolphins belong includes several species



that have differentiated relatively recently in evolutionary time and therefore it is difficult to distinguish or understand relationships between them based on morphology alone," she said.

The new coastal bottlenose dolphin will be the second dolphin species found only in Australia. Dr Möller says this discovery has important implications for the species and for marine science in general.

"In the current biodiversity crisis, when we are losing so many animal species, it's very exciting to find out about these unique Australian dolphins," she said.

"They should be given special conservation attention due to their limited distribution to coastal waters of southern Australia. Due to their coastal habitat, these dolphins are also more likely to face threats such as pollution, overfishing and entanglement in nets."

Using DNA analysis, the researchers found that the new species was more closely related to the Fraser's dolphin, which is found mostly in the deep waters of the Pacific Ocean.

Dr Möller said her research team's findings demonstrated how important DNA studies are to uncovering hidden marine diversity.

"It suggests we still have a lot to learn about how many marine species are out there," she said.

Provided by Macquarie University

Citation: Scientists uncover new dolphin species in Australian waters (2008, November 21) retrieved 23 April 2024 from



https://phys.org/news/2008-11-scientists-uncover-dolphin-species-australian.html

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