

BOTTLENOSE DOLPHINS MAY ADDRESS LOVED ONES BY "NAME"

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Humans may not be the only species that can answer the proverbial question, "What's in a name?"

A study published in a recent issue of *Proceedings of the Royal Society B*, a British biological research journal, examines how bottlenose dolphins may share the ability to call the "names" of family and friends through distinctive whistles, rather than words.

25 YEARS OF RESEARCH

While earlier research discovered bottlenose dolphins named themselves by emitting unique

whistles that announce their presence, this new study suggests they mimic the whistles of others to seemingly call them by name.

For this study, researchers from the University of St. Andrews Sea Mammal Research Unit in Scotland assembled 25 years worth of acoustic findings on both wild bottlenose dolphins and captive males, all living in Florida, to draw these conclusions. They also found there was no difference in the development of the name calling between the captive and wild dolphins.

ACROSS THE MILES

The dolphins used this name calling technique when trying to reunite with a friend or family member across the ocean, the study explained. Incredibly, the name calling whistles were detected as far as 12.4 miles away. Scientists noted the ability to travel this distance was affected by the depth of the water and the frequency of the dolphin's specific whistle.

TERMS OF ENDEARMENT

The name calling was never used in aggressive encounters, the study said, and was only offered

to find loved ones. Further, dolphins even seem to apply inflection or an accent when calling others through mimicking the other dolphins' self-proclaimed names. This seems to show the dolphins were calling others and not just announcing their own names. Even though this all adds up to quite a complex form of communication among bottlenose dolphins, scientists are not ready to call these dolphin exchanges "speaking." Language currently remains a human-exclusive form of communication.

WHAT'S ON THE HORIZON?

The give and take between bottlenose dolphins continues to intrigue scientists. Right now, researchers are conducting audio experiments to gauge the reaction of wild dolphins to the recorded sound of their own whistle/name calling.

CLASSROOM DISCUSSION

- Do you think the bottlenose dolphin name calling whistles are a language?
- Why do you think this research is important to humans or other animals?

INVASION OF THE GIANT GOLDFISH

By Samba Lampich

The tranquil, quiet waters of Lake Tahoe, the country's highest alpine lake, have been invaded by monster goldfish, weighing several pounds and measuring more than a footlong.

A group of researchers from the University of Nevada at Reno discovered and documented the oversized fish, and they say this household pet is an unwelcome visitor to the freshwater lake.

FROM HOME TO LAKE

Researchers say aquarium dumping is to blame for the invasion. Owners don't think twice about emptying their aquariums into lakes, which may contain no fish but might have fertilized eggs.

The goldfish in Lake Tahoe grow faster and bigger than in a bowl or aquarium because they have a high-protein diet, which increases their weight, and they feed more often. They are also exposed to warm water, which hastens their growth. They have few predators, allowing them to grow larger and rapidly reproduce.

DISRUPTING THE ECOSYSTEM

The giant goldfish out-compete native species, such as trout, for food, leading to the decline of native fish. They also harm the lake clarity by rooting around the sediment for food and fueling algae growth with their waste, which interferes with food sources to disrupt the ecosystem's food chain.

The California Department of Fish and Wildlife, Tahoe Regional Planning Agency and UNR partnered on a pilot project to remove warm-water fish species, such as large-mouth bass, from the Tahoe Keys during the summers of 2011 and 2012. Although only a small fraction removed in 2012 were goldfish, researchers found pregnant fish, which indicates that they are breeding quickly.

Efforts to eradicate these invasive species will continue through the summer of 2013.

CLASSROOM DISCUSSION

- What species of fish are goldfish and how were they domesticated?
- How and why are non-native species of animals and plants introduced into an ecosystem? Could there be any benefits?



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