

Study shows levels of panda hearing

March 22 2016



A study published in the journal *Global Ecology and Conservation* may help field conservationists better understand the potential for human activities to disturb endangered giant pandas in native habitats. Using pandas located at the San Diego Zoo, conservation scientists worked with animal care specialists to determine pandas' range of hearing sensitivity, discovering that they can detect sound into the ultrasonic range. Because giant pandas depend in large part on information transmitted through vocalizations for reproductive success, noise from human activities in or near forest areas could be disruptive.

"An understanding of a species' hearing provides a foundation for developing estimates of noise disturbance," said Megan Owen, associate director of giant panda conservation, San Diego Zoo Global. "For the giant panda, vocalizations are typically emitted in proximity to

conspecifics (members of the same species), however the ability to discriminate between fine-scale differences in vocalizations is important for successful reproduction; and so, a thorough understanding of acoustic ecology is merited in order to estimate the potential for disturbance.

"In order to learn about panda hearing, researchers at the San Diego Zoo worked with [giant pandas](#) to teach them to respond, if they could hear sounds at a particular pitch and loudness, thus communicating their ability to hear across the acoustic spectrum," Owen said.

"Through this study, the pandas at the San Diego Zoo have made a significant contribution to our understanding of what may be affecting panda reproduction in habitats in China," said Ron Swaisgood, director of applied animal ecology, San Diego Zoo Global. "It is only because of the strong relationship that animal care staff have with the bears at the Zoo that we have been able to gather this information."

Provided by Zoological Society of San Diego

Citation: Study shows levels of panda hearing (2016, March 22) retrieved 26 April 2024 from <https://phys.org/news/2016-03-panda.html>

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