

Memory of mum's voice remains strong for young sea lions

May 27 2010



Sea Lion mum with pup. Image by Rob Harcourt

(PhysOrg.com) -- Young sea lions are able to recognise their mother's voices long after they've been weaned, a new Macquarie University study has found. The research provides rare evidence of the long-term memory capacity of wild mammals.

The findings published last week in Science Online also appeared in the journal *Animal Cognition* this month.

PhD student Benjamin Pitcher, lead author of the study from Macquarie University's Graduate School of the Environment and fellow researchers in collaboration with Universite Paris Sud in France originally recorded the pup-attraction calls of six female Australian sea lions to test the pups ability to discriminate between the calls of their mother and another

adult female during their first year while they were still dependent on their mother.

However, around two years later, they played back the recordings to pups that were now three and a half years old. Despite having been weaned at around one and half years old, the pups identified more strongly when hearing the sound of their mothers' voices rather than the voices of other unknown females. Moreover, the researchers found that the pups not only looked at and called to the speaker - but in some cases, even approached it when they heard their mothers' voices.

Pitcher said that elephants and fur seals are the only other [mammals](#) known to have such long-term memories for the voices of others. He points out that it is especially helpful for animals that live in colonies to have a [memory](#) for voices, where social interactions play a large role in daily life. Also, there's the matter of survival. A nursing pup that could not recognise its mother's [voice](#) would starve.

“The bond between [mothers](#) and pups is so strong that the memory of the mother stays with [pups](#) long after they leave their mum,” said Pitcher.

“This type of long memory may help the formation of more complex social systems in mammals.”

Provided by Macquarie University

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