

Pilot whales have 'mummy's boys,' too

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(Phys.org) —A Liverpool John Moores University scientist has revealed that sons are a bigger drain on resources than daughters for pilot whale mothers, but mums are powerless to ease the burden.

Dr Hazel Nichols from the LJMU School of Natural Sciences and Psychology led the investigation, working in collaboration with Professor Bill Amos (University of Cambridge) to reanalyse genetic and behavioural data from a previous study of over 3000 [pilot whales](#). The results were published in ScienceDirect.

Dr Nichols said that "pilot whales are a particularly interesting species to study as they show several similarities to human societies".

Previous research by Professor Amos and scientists at the Natural History Museum of the Faroe Islands revealed that pilot whales live in large social groups (known as pods) of up to several hundred individuals – similar to the number of Facebook friends that people have. Pods show extremely strong social ties and individuals rarely seem to leave their groups, often remaining in their social group for their entire lives. They also have extended periods of maternal care, as with humans.

In this latest study, Dr Nichols found that male calves grow much faster than female calves in early life, suggesting that they need greater investment from their mother in her milk.

She commented: "Producing large amounts of nutrient-rich milk is likely to be energetically costly to mothers. This might explain why pilot whale

mothers are less likely to have another pregnancy after having sons, compared to mothers who have daughters."

The results build on previous work by scientists at the University of Exeter on [killer whales](#), which found that in this species too, sons are highly dependent on their mothers, even when they are in their 30s. These 'mummy's boys' find it difficult to survive without their [mothers](#), being more than eight times more likely to die in the year following their mother's death.

Dr Nichols' study also found that female pilot whales seem unable to 'choose' whether to produce sons or daughters. This was investigated as part of the research due to the fact that there is evidence that some species can. This even seems to occur in humans, as previous studies have found that wealthy people were more likely to produce sons than daughters, as are heavier women.

"If Pilot whales could choose the sex of their offspring then you would expect smaller females to opt for producing daughters, but we found no evidence of this."

More information: Hazel J. Nichols, Karen Fullard, William Amos. "Costly sons do not lead to adaptive sex ratio adjustment in pilot whales, *Globicephala melas*." *Animal Behaviour*, Volume 88, February 2014, Pages 203-209, ISSN 0003-3472, [dx.doi.org/10.1016/j.anbehav.2013.12.015](https://doi.org/10.1016/j.anbehav.2013.12.015).

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