

Investigation into increased humpback whale strandings in Western Australia

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The rise in the number of stranded whales in Western Australia has led a group of veterinary researchers, working in collaboration with the Department of Parks and Wildlife, to investigate why this is occurring.

Speaking at the Australian Veterinary Association's annual conference, Murdoch University researcher Dr Carly Holyoake said that an unprecedented number of humpback whales, predominantly calves and juveniles, have stranded on the west coast of Australia since 2008.

"Between 1989 and 2007 the mean number of <u>humpback whales</u> ashore was between two and three. In 2008 there were 13 strandings, followed by 46 in 2009 and 16 in 2010.



"In 2011 there were 17 strandings consisting of 14 calves and three juveniles, representing a rise in the number of young whales perishing than in previous years.

"The aim of our project was to find out why this was happening through post-mortem examination.

All the strandings occurred between Exmouth and Stokes Inlet, east of Esperance, so all individuals were born at least 1000km south of the regular breeding grounds in the Kimberley region.

"Post mortem examination and analysis of the fat content of blubber samples revealed most calves were in an extremely malnourished state. Most had very low blubber fat, which is required for energy, thermoregulation and for buoyancy. One individual also had pneumonia which would have made it difficult to breathe and may have contributed to its death."

There were several theories proposed for the high rate of calf strandings in 2011:

Increased population size and inherent high mortality rate in humpback calves.

Mothers giving birth in unsuitable areas due to environmental conditions.

Mothers in a poor nutritional state giving birth to malnourished calves.

The researchers concluded that the most likely cause of the humpback calf strandings was due to poor nutrition It is also significant that the calves were born several thousands of kilometres south of the known breeding grounds.



Humpback whales feed almost exclusively on krill in the Antarctic and it is unknown what effect an expanding krill fishery in conjunction with climate warming might be having on the abundance of krill.

"It's likely that a reduction in the abundance and distribution of feed in the Antarctic may have resulted in longer foraging time which led to a delay in migration times and reduced fat reserves in some pregnant cows," Dr Holyoake concluded.

Provided by Murdoch University

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