

# Study first to track South-West dolphins

October 23 2013

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Murdoch University has completed a comprehensive survey of the Bunbury dolphin population in an area extending from Capel to Binningup, providing vital baseline data for future management decisions in a region pegged for rapid future growth.

Boat-based photo-identification surveys for dolphins were conducted year-round over three consecutive years along pre-determined transect lines to create a consistent and intensive sampling effort throughout the study period and area. It is the first scientific publication out of the [South West Marine Research Program](#) (SWMRP).

Murdoch University Cetacean Research Unit (MUCRU) Research Leader Associate Professor Lars Bejder said the study provided

population snapshots for any given time of the year.

"Dolphin abundance estimates were seasonally dependent with consistently lower numbers obtained during winter and higher during summer and autumn across the three-year study period," Dr Bejder said.

"We now know that if you look at the surveyed area extending 1.5 kilometres offshore in winter, you will get approximately 65 dolphins; in summer, this increases to roughly 140."

Dr Bejder said the population numbers were consistent with known dolphin behaviour, namely that females tend to gather in large groups with smaller home ranges while males form partnerships or trios and range larger areas.

"The seasonally-dependent fluctuation in dolphin numbers observed is very likely the result of an influx of adult males into the study area during the breeding season (summer/autumn season) and their subsequent departure during the non-breeding months," he said.

"This is consistent with the documented peak calving and mating season in Bunbury spanning the summer and autumn months and a twelve month pregnancy period. In winter, resident [dolphins](#) are generally females, calves and juveniles.

"There is going to be a lot of development in coming years, so now planners, developers and conservationists are well placed to make informed decisions and measure how developments may affect dolphin numbers."

Dr Bejder said SWMRP industry partners, including the City of Bunbury, Bunbury Port Authority, BHP Billiton and Newmont Boddington Gold, had been extremely supportive throughout the past

seven years.

Bunbury Port Authority Chief Executive Officer, Kevin Schellack said, "The Bunbury Port Authority has proudly supported the SWMRP since its commencement in 2007. The study will provide key migration patterns of the Bunbury dolphin population, which will assist with future port planning processes.

"The Bunbury Port Authority congratulates the research team on the completion of this aspect of the South West Dolphin Study."

Founded in 2007 on an initial partnership between the Bunbury Dolphin Discovery Centre and Murdoch University, with support from the South West Development Commission, the SWMRP is now composed of partners from industry, government, research and the community.

The study, led by Murdoch researcher Dr Holly Smith, was recently published in the peer-reviewed international journal *PLoS ONE*.

**More information:** [www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076574](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076574)

Provided by Murdoch University

Citation: Study first to track South-West dolphins (2013, October 23) retrieved 19 April 2024 from <https://phys.org/news/2013-10-track-south-west-dolphins.html>

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