

First BRAHSS Experiment Completed

The first of a series of field experiments under the BRAHSS project - Behavioural Response of Australia Humpback whales to Seismic Surveys - was conducted in Queensland in late 2010. The field work was conducted over a one-month period and involved over 65 people from CMST, the University of Queensland, the University

of Sydney and volunteer groups. The second experiment will take place in September and October. The project is funded by the International Association of Oil and Gas Producers E&P Sound and Marine Life Program. Further information can be obtained at the following web address: www.soundandmarinelife.org.

PHOTO COURTESY OF JUDY KRUGER



CMST air gun deployment off Queensland for BRAHSS experiment

Underwater Communications Project Concludes



PHOTO: MAL PERRY

Grant Pusey with CMST air gun
The four-year CSIRO Wealth from Oceans Flagship Pipeline cluster project investigating the real-life performance of underwater acoustic

modems has been successfully completed by CMST. The primary conclusion of this project was that underwater acoustic communications over horizontal acoustic channels remains a very challenging problem. Good progress is being made, but performance is inherently variable. It is likely that the application of such systems to pipeline monitoring will initially be as a backup to hard-wired links or as short-range, near vertical links to gateway buoys that can then forward data via satellite or radio. PhD student Grant Pusey has recently submitted his thesis as part of this project and is now working at the University of Hawaii.

Andrew Woods Elected SPIE Fellow



Andrew Woods with 3D stereoscopic camera

Andrew Woods, Research Fellow at CMST has been elected to Fellow status by SPIE for his achievements in stereoscopic 3D displays and applications, and undersea

stereoscopic camera design.

SPIE is the international society for optics and photonics and is devoted to advancing an interdisciplinary approach to the science and application of light. The Society promotes emerging technologies through interdisciplinary information exchange, continuing education, publications, patent precedent and career and professional growth.

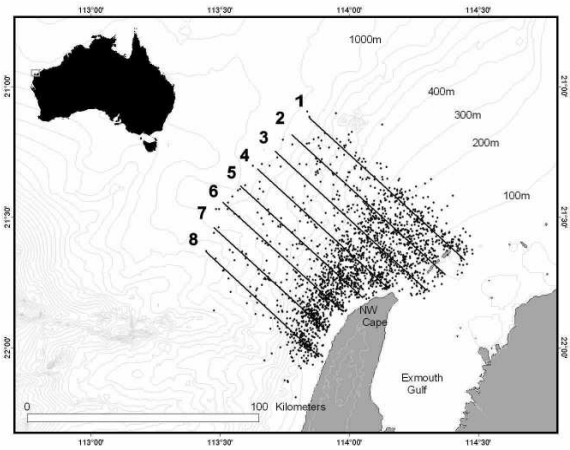
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FELLOW

Western Australian Humpback Whale Population Estimated

CMST, in collaboration with the Centre for Whale Research (WA), Inc. and the University of St. Andrews has recently finished estimating the humpback whale population that migrates every year along the Western Australian coast from Antarctica to the Kimberley. Led by Dr Chandra Salgado Kent, the work was granted

funding by the Australian Marine Mammal Centre, and will be presented at the International Whaling Commission which takes place in June in Norway. Estimates were based on the latest distance sampling statistical modelling techniques applied to aerial survey data. The results indicated that the humpback population size could have

GRAPHIC: CHANDRA SALGADO KENT



Humpback whale pods detected along aerial survey tracks at North West Cape, WA during 2000, 2001, 2006, 2007 and 2008.

been as large as 33,000 in 2008 (the most recent estimates). Estimates such as these are key to managing

what is thought to be the largest populations of the species.

CMST Welcomes New Postgraduate Students

► Sue Mason is joining CMST this year to undertake a PhD after volunteering for humpback whale research projects in Australia and Hawaii. Sue will be studying the ecology of resident common dolphins in Port Phillip Bay, Victoria. Her PhD project will be conducted in association with the Dolphin Research Institute in Melbourne where she is also a Research Officer. Sue will be supervised by Dr Chandra Salgado Kent and Associate Professor Rob McCauley.

complete a Masters on Swan River bottlenose dolphin ecology and acoustics. He will be supervised by Dr Chandra Salgado Kent (CMST) and Dr Hugh Finn from Murdoch University as part of the joint Curtin-Murdoch Coastal and Estuarine Dolphin Project (CEDP).

► Estêneo Paiva is joining CMST this year to

International Activities

Postgraduate research student Benjamin Trimoreau from Chalmers University of Technology, Sweden, has joined CMST for 12 months to work on his Masters thesis. During his time at CMST he will be researching the acoustic identification and tracking of marine megafauna. He will be using data sets acquired off the coast of Queensland last year during the first stage

experiment of the BRAHSS project investigating the effects of seismic surveys on humpback whales.



PHOTO: TIMOTHY GOURLAY

Benjamin Trimoreau

CMST Researcher Wins Environment Award

Dr Tim Gourlay is the winner of the inaugural Environment Award at the 2011 WA Marine Awards. The award was in recognition of CMST's measurement and analysis of boat wakes and wind waves on the Swan River during

2010. The research has given a scientific basis to the new speed limit zones being developed along the river, and has helped boat owners to understand the effect of speed on boat wake for their vessels.



PHOTO: COURTESY OF BIANVA

Dr Tim Gourlay (left) receives the award from Stephen King, Swan River Trust

The Centre for Marine Science & Technology (CMST) conducts world-class consulting, research, development and education for the marine industry and for government agencies.

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CMST Lunchbox Seminars

CMST holds weekly seminars, with speakers from interstate and overseas, as well as CMST staff.

The schedule of seminars is listed on our website:
www.cmst.curtin.edu.au/seminars

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