



# Media Release



western australian  
marine science institution

6 May 2010  
Ref 10/52

## Nationwide sea-floor ecology study starts off WA

The first stage of a long-term observation study of the ecology of Australia's sea-floor was recently launched off Western Australia's Rottneest Island.

The study is being conducted by the Integrated Marine Observing System (IMOS), CSIRO's Wealth from Oceans Flagship and The University of Western Australia Oceans Institute (UWA OI) – as a collaboration through the Western Australian Marine Science Institution (WAMSI) – to increase understanding of how ocean currents affect coastal ecosystems.

“A focus of the study will be on how kelp forests influence biodiversity and productivity by generating food for valuable resources such as fisheries,” CSIRO research scientist Dr Mat Vanderklift said.

“Our observations will enable us to monitor and adapt to processes such as changes to major currents or climate change.”

From the CSIRO vessel *Linnaeus*, researchers deployed an autonomous underwater vehicle (AUV) – a small robotic submarine that ‘flies’ over the seafloor collecting data and visual images. The AUV can stay underwater for hours at a time and travel over several kilometres.

“The AUV was used to survey kelp forests on reefs at three locations from Rottneest Island to the Abrolhos Islands,” UWA's Professor Gary Kendrick said. “Using an AUV we can produce detailed maps and do repeated surveys of the sea-floor allowing us to see how habitats change from year to year.”

Although the AUV has undertaken numerous exploratory missions around Australia over the past few years, this is one of the largest such studies attempted worldwide, with annual surveys to take place off the coasts of Queensland, New South Wales, Tasmania and Western Australia.

*CSIRO initiated the National Research Flagships to provide science-based solutions to Australia's major research challenges and opportunities. The 10 Flagships form multidisciplinary teams with industry and the research community. [www.csiro.au/flagships](http://www.csiro.au/flagships)*

*The Western Australian Marine Science Institution (WAMSI) is providing a better scientific understanding of the marine environment for the people of Western Australia. It is a collaboration between 15 core partners, including Commonwealth and WA Government research organisations, universities and the private sector. [www.wamsi.org.au](http://www.wamsi.org.au)*

*IMOS is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy and the Super Science Initiative. [www.imos.org.au](http://www.imos.org.au)*

### **Media Please Note:**

**Broadcast-quality video footage is available at:**

<http://rcpt.yousendit.com/859519125/9ca69c34a3388c725076b4279fa40a97>

<http://rcpt.yousendit.com/859429499/0e039d3953317f0bb33947daa122e8cc>

<http://rcpt.yousendit.com/859502727/29e684027b0bd9d81736a492bdd1eccb>

<http://rcpt.yousendit.com/859502727/29e684027b0bd9d81736a492bdd1eccb>

**Images available at:** <http://www.scienceimage.csiro.au/mediarelease/mr10-52.html>

**All IMOS data, including the AUV surveys, is freely and openly available through the IMOS Ocean Portal: <http://imos.aodn.org.au/webportal/>**

**Further Information:**

Dr Mat Vanderklift, CSIRO Marine and Atmospheric Research

Ph: 08 9333 6536

E: [mat.vanderklift@csiro.au](mailto:mat.vanderklift@csiro.au)

Professor Gary Kendrick, University of Western Australia

Ph: 08 6488 3998

Ph: 08 6488 8116

**Media Assistance:**

Sarah Wood, CSIRO Marine and Atmospheric Research

Ph: 0408 441 578

E: [sarah.k.wood@csiro.au](mailto:sarah.k.wood@csiro.au)

[www.csiro.au](http://www.csiro.au)

If you would like to be removed from this mailing list please contact [CSIROMedia@csiro.au](mailto:CSIROMedia@csiro.au)