

MARINE SCIENCE NEEDS FOR THE KIMBERLEY

On 1 September 2010, the Western Australian Marine Science Institution (WAMSI) showed a small documentary, Under Kimberley Waters, to the Kimberley Society meeting.

Chairman of the WAMSI Board, Dr Peter Rogers, gave a presentation about the work of WAMSI and what it hoped to achieve in future research. Also in attendance from WAMSI were the Communications Manager, Sue McKenna, and Events Co-ordinator, Lynne Stephenson. WAMSI provided the notes and images that follow.

Kimberley research high priority for WA's Marine Science Institution

Independent scientific studies in the beautiful and remote Kimberley marine region have been identified as a priority by the Western Australian Marine Science Institution's Board.

The Kimberley is a region of intense natural beauty where few formal, long-term marine baseline studies have been instigated.



Kimberley Coastline.

The first indications of the latest exploratory research are predicting that there will be many hundreds of new marine species discovered from the shallow waters of the continental shelf out to the deep ocean. Initial information has shown that some reefs have new sponge and coral species on them.

A long remote coast, three thousand islands at low tide, thousands of reefs and sponge gardens, numerous atolls and sweeping mangroves distinguish the region. Most have not been seen, recorded, catalogued or analysed by scientists.

Massive 11-metre tides driven by the elliptical pull of the moon occur in the Kimberley.



The tidal Kimberley Coastline.

All of this has historically been largely hidden from public view and general awareness.

The Kimberley has been out of sight and out of mind for most people but its proposed new whale sanctuary and other iconic features are now attracting the attention of the world.

“We hope that the future of the Western Australian Marine Science Institution’s (WAMSI’s) research will be largely concentrated in the Kimberley-Browse marine region,” Dr Steve Blake, WAMSI’s Chief Executive Officer, said.

“Sadly, we know more about the surface of Mars than we know about the Kimberley underwater world.”

WAMSI, through its 15 partners, has 250 scientists working on 87 research projects along the 13,500-kilometre WA coastline. Most of the work to date has been between Exmouth and Rockingham.

Topics which will be of great human benefit – biotechnology, identifying new marine species, sustainable fisheries, biodiversity, coral ecology and the effects of climate change – are being studied.

A focus on the offshore Kimberley region has been promoted by WAMSI since 2008 when it released an open report calling for more research in the Kimberley. *A turning of the tide: science for decisions in the Kimberley-Browse marine region* was written by Professor Mike Wood and Dr Des Mills and presented to the State Government by WAMSI.

“It’s rare for leaders to face decisions about the future as complex as those involving the cultural, environmental, economic and social values in this region,” Dr Peter Rogers, Chairman of the WAMSI Board, said.

“Scientific information should be the lifeblood of one of the last great wild and rugged marine region on earth – a region where natural gas processing, tourism, fishing, infrastructure and port developments will need to co-exist.

“The absence of independent regional marine and coastal research could ultimately be to the detriment of the environmental, economic, social and cultural values of the region.

“It will be most marked in the Kimberley-Browse marine region which historically has very limited fundamental marine biodiversity and other baseline data.”

He said WAMSI – which began in 2006 – had put in a Major Research Institutes funding application to the State Government for the second stage of WAMSI. Another research organisation linked to WAMSI, the Integrated Marine Observing System, had also put in a funding application and, if successful, would use the funds for ocean monitoring using state-of-the-art instruments in the Kimberley offshore region.

“Results from WAMSI’s work in the past four years are already being used by decision makers tackling the questions of coastal developments, industry requirements, fishing, Indigenous heritage and conservation,” he said.

“It will hopefully augur well for the proposed next stage of research in the Kimberley offshore region.

“We’ve accomplished much more than a single agency could ever do alone by providing holistic results from research teams based in universities, government agencies and private industry. I think that that’s something which the community can be proud of.”

WAMSI’s partners are the WA Department of Environment and Conservation, the WA Department of Fisheries, the WA Department of Industry and Resources, The University of WA, Murdoch University, Edith Cowan University, Curtin University of Technology, the Chemistry Centre, the WA Global Ocean Observing System and the WA Museum. Federal partners include CSIRO’s Wealth from Oceans Flagship, the Australian Institute of Marine Science, the Bureau of Meteorology, and foundation industry partners are Woodside Energy Limited and BHP Billiton Petroleum.

If you would like to know more about WAMSI, please visit their [website](#) or, for information that is specific to the Kimberley region, you can go [here](#).