

Kimberley Tides for National Science Week

Written by Kandy Curran for ScienceNetwork WA on Thursday, 18 August 2016



Setting up for National Science Week in Broome

On a sublime, starry, evening, with a backdrop of the ebb and flow of a Kimberley macrotide across the mudflats of Roebuck Bay, an astronomer and oceanographer joined together for National Science Week, to explain why the Kimberley boasts the second largest tidal movements in the world.

As Professor Ryan Lowe explained to the audience of 250 on August 3, “the moon and sun generate the forces to produce tides around the globe, and in the Kimberley other factors play out as well. Having a very wide and relatively shallow continental shelf causes the tides to be amplified and resonate as they rise out of the deeper waters onto the shelf. In particular regions such as Collier Bay, tides are also further enhanced by the shape of the coastline that funnels the tides towards the coast”.

With the aid of lasers, Broome’s famed astronomer Greg Quicke from Astro Tours, enthralled the audience with his visual overview of the planets and stars and path across the Kimberley sky. Greg also captivated with an account of his interest in astronomy when he first came to Broome to work as a pearl diver 35 years ago, quickly learning the importance of understanding the tides. Greg also recounted a dreamtime story passed on by the Goolarabooloo people of the Dampier Peninsula, pointing out Marela in the sky, the emu, the creator, and how this links with remnant dinosaur footprints along the Broome coast.

Professor Lowe further explained that Kimberley reefs experience unique and extreme environmental conditions due to the extreme tides of the region. Naturally large daily temperature variability have produced reef ecosystems that are remarkably resilient to extreme conditions. Recognised as one of the few pristine reef systems in the world, and soon to be, the Great Kimberley Marine Park, the Western Australian Marine Science Institution are busily putting the science into management plans.

This innovative Science on the Broome Coast series is hosted by the Roebuck Bay Working Group and Yawuru Land and Sea Unit, and sponsored by Inspiring Australia, National Science

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See the [2016 Science on Broome Coast program and posters for each presentation](#)