

Talbot Bay coral discovery defies conventional belief

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The clarity of the water is affected by this large inter-tidal flow thus the discovery of corals in this environment is a surprise. Credit: Flickr: Waltzing Van

Kimberley coral reefs are thriving in turbid inter-tidal conditions and defying conventional scientific understandings that corals need clear oceanic waters to survive.

Marine biologist Dr. Barry Wilson last year spent time at Turtle Reef in Talbot Bay, on advice from One Arm Point's Bardi-Jawi people.

Dr. Wilson says there is greater diversity of coral species in Kimberley reefs than in oceanic atolls or the Great Barrier Reef.

“There have been 318 species of corals recorded now on the Kimberley

coast,” he says.

Researchers in the late 1940s said the Kimberley had “a profusion of ordinary fringing reefs”.

Dr. Wilson says they were right about the profusion of Kimberley reefs, but not about them being ordinary.

Known to survive at a depth of 60 metres in clear oceanic waters, Dr. Wilson has found Talbot Bay corals as deep as 20 metres in turbid, muddy conditions.

Dr. Wilson says non-Indigenous scientists would not normally look for corals in locations such as Turtle Reef.

“The water is very far from clear and oceanic—it’s turbid and the light doesn’t penetrate far. It’s not the sort of environment [conventional] corals require, yet we’ve got this prolific growth of corals,” he says

“This is in a land-locked gulf, you’ve really got to navigate your way in and you will have [difficulty] getting out if you don’t know your way.

“[The environment] is macro-tidal, [it has] eleven metres of tidal flow twice a day.

“As a consequence ... the current flows away and you get whirlpools in the ocean,” he says.

The clarity of the water is affected by this large inter-tidal flow thus the discovery of corals in this environment is a surprise.

About 70 per cent of the Talbot Bay corals appear to be common to Queensland’s Barrier Reef.

Dr. Wilson suspects the remaining 30 per cent will be found in Indonesia's Maluku province, because of its proximity to Australia. He says the discovery turns conventional thought about [coral](#) on its head.

“This is the sort of information which some people will find difficult to believe because they have all been taught that corals all need clear oceanic water and it's not true,” he says.

The original article 'Reconnaissance of species-rich [coral reefs](#) in a muddy, macro-tidal, enclosed embayment, – Talbot Bay, Kimberley, Western Australia' has been published in the *Journal of the Royal Society of Western Australia* issue 94.

Source: ScienceNetwork Western Australia

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