

Lord Howe Island Marine Park News

Cryptic and rare critters spotted

Coral reefs in the Lord Howe Island Marine Park (LHIMP) are well-known for schools of colourful fish including Butterflyfish, Parrotfish and Angelfish. However, they are also home to countless species of fish which live camouflaged on the sea floor or hidden in cracks and crevices. These are known as cryptobenthic reef fishes, crypto meaning “hidden” and benthic meaning “on the bottom”.

While rarely noticed or studied, these fish are an important part of the reef ecosystem. Several have remained so well hidden that only in recent years have they been documented in the LHIMP. Many are also endemic, occurring only in the Lord Howe Island Marine Park or surrounding region, so very little is known about them.

Regular visiting diver, Dr Chris Preston, has a good eye for these cryptic species. She has been the first to photograph and record some of these fish in the LHIMP. On her most recent visit she captured some fascinating finds:

“A major lure for me to repeatedly return to dive in the Marine Park is the abundance of micro life. I spend most of my dives looking under ledges, in holes in the reef and sticking my head into recesses inside sea caves. These are all a treasure chest of macro life.

I also scour the reef for tiny stuff that many divers don’t notice. I might pick up a wisp of movement and follow a juvenile fish to snap a photo for later identification. I also search on and around corals, seaweed and large invertebrates that provide a niche for other organisms. Our 38 dives in 3 weeks this summer (Jan-Feb), netted some great finds including rare and unusual sightings.

I got a nice shot of a rare Innerspot Sandgoby (*Fusigobius inframaculatus*) tucked away in a cave along the north-western end of the Island.”

Dr. Preston noted that the long-spined Sea Urchin (*Diadema savignyi*) was a hotspot for cryptic marine life, with fish, nudibranchs, and shrimp taking shelter among its spines. She also photographed a rare Australian Damsel Fish (*Pomacentrus australis*) sheltering near an urchin at Malabar West, a species seldom seen in the Marine Park.



An Innerspot Sandgoby (top) and Australian Damsel (bottom) in the Lord Howe Island Marine Park. Photo Credit Dr. Chris Preston

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Another highlight was capturing an image of the elusive Island Longfin (*Plesiops insularis*) a rarely seen fish that hides deep in reef crevices. It is found only around remote oceanic islands in the south-west Pacific (including Lord Howe Island, Elizabeth and Middleton Reefs, and Norfolk Island). The name 'insularis' fittingly means 'of an island'.



*An Island Longfin in the Lord Howe Island Marine Park.
Photo credit Dr. Chris Preston.*

Not all cryptic marine discoveries happen underwater. Sometimes, the ocean delivers them to our doorstep. Another recent find in the LHIMP was a Lord Howe Conger (*Ariosoma howensis*). The eel washed up dead on Lagoon Beach after wild seas, and was found by Martin and Kobe Wilson.

“My son and I were enjoying a sunrise walk along Lagoon Beach when we spotted something unusual washing up on the shore. Curious, we moved closer to take a better look and realized it was unlike anything we had ever seen before. At first, we thought it might be a moray eel. Wanting to learn more, we asked Lord Howe Island Marine Park staff.”

This species is rarely seen, because it spends most of its time buried in the sand and only coming out at night to feed. First described from Lord Howe Island, it is also found in the south-west Pacific region. Few specimens exist in museums and little is known about its biology. As a result, this find will be a valuable contribution to our understanding of the species. Thanks to everyone who documents and reports unusual observations in the marine park.



A live Lord Howe Conger in the Lord Howe Island Marine Park. Photo credit DPIRD.