

MANTA RAYS A SIGN OF STABILITY

Ningaloo Reef Marine Park, WA

Ningaloo Reef's manta rays are sanctuary regulars and their cleaning stations are a thoroughfare for a broad range of species. Manta ray researcher and tour guide Frazer McGregor would like protections extended to incorporate these stations.

Frazer, who has spent 12 years collecting data on manta rays, says they may be a good indicator species for measuring reef health.

"Having them come back is a good sign that the system is stable ... Of the over 750 animals we have identified, every

single one of them has visited not only Ningaloo but the sanctuary zones close to Coral Bay - not all of them come back every year but there are a number that we would call 'reef-resident."

Frazer says most of these are breeding, mature females and he believes any reduction in protections could decrease the effectiveness of their breeding and other activities.



WARROORA'S SALTY OASIS

Ningaloo Reef Marine Park, WA

"There are no places still as wild and beautiful adjacent to a pristine coral reef anywhere. It's what people are seeking from all over the world."

In the 10 years since Ningaloo Reef became one of the most highly protected marine areas in Australia, it attracts an impressive 180,000 tourists a year, spending in excess of \$141 million. For merino grazier Leonie McLeod from Warroora Station, it's her home, livelihood and passion:

"I've had a fairly good look around the world and I've noticed that there are no places still as wild and beautiful adjacent to a pristine coral reef anywhere ... It's what people are seeking from all over the world. They just want to see something natural.

We don't believe we own anything. We just believe we are caretakers here and I'd like to pass that on to my little bush-chook grandchildren."

BILL'S BOUNTY

Great Barrier Reef Marine Park, Qld

Rockhampton and Yeppoon fisherman Bill Sawynok's fish tagging competition, The Rocky Barra Bounty, has become one of the premier Barramundi competitions in Queensland and contributes to local research.

Since the 1990's Bill has been training his fishing group to target and collect the fish identifications of many species. He has worked with leading scientists and it was his group's data which contributed to the design of the sanctuary off Yeppoon in Great Barrier Reef Marine Park. He says fishing was vital to his community.

There was originally some hesitation when the nearby Great Barrier Reef Marine Park was rezoned in 2004.

"But the local community here really took it into their own hands and that led to the community making its own decisions about where it thought the sanctuary zones should be.

Sanctuaries play an important role in looking after our fish resources. If nothing else, they act as an insurance policy because if things do go wrong and if we do run into problems

with the resources that have got nothing to do with fishing but may have something to do with climate change or long droughts, [they] have a role in ensuring we've got some level of fish stocks that are protected."

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BABY BOOM ON THE REEF

Great Barrier Reef Marine Park, Qld

A monitoring program of sanctuary areas on the Great Barrier Reef shows coral trout are producing up to 10 times more fish, and fish stocks have increased by up to 100 percent, says Dr David Williamson from the ARC Centre of Excellence for Coral Reef Studies, James Cook University.

"Within the Great Barrier Reef Marine Park we've got about 33 percent of the total area protected within no-take marine parks ... There's a whole range of habitats that are protected in this zoning plan.

We look at the inshore reefs of the marine park ... we've seen really strong effects of the parks, particularly for the things that we fish. Number one amongst them is coral trout.

Coral trout are a really iconic species and highly targeted by both commercial fishers on the offshore reefs and recreational fishers where we are in the islands."

"We've seen a big increase of coral trout populations within the areas closed to fishing. Meanwhile, in the areas open to fishing, populations have been relatively stable. So when we look at the entire population, focusing on the inshore reefs, we can see there is about 20 to 100 percent more fish in the entire system than what there was in the early 1980s.

A 50cm coral trout may produce 10 times more babies than a 35cm coral trout, so we're getting a lot more egg production coming from those bigger fish within the parks.

Those babies being produced in the reserve are not staying there. [Genetic tools show us] they are being dispersed out. So we're getting benefits across a range of areas as a result of what we're doing within the reserve."





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instructor at 'Let's Go Adventures' in Port Stephens.

Today Nigel still loves fishing, and says areas outside of sanctuaries are good for fishing.

"The fish have to come in and out of the sanctuaries sooner or later and there's your opportunity to catch them.

It's definitely our job as parents and as fishermen – so that our children and their children can enjoy the sport of fishing - that we educate everyone on the importance of sustainable fishing and marine parks.

ROCK LOBSTERS' DRAMATIC RECOVERY

Maria Island Marine Park, Tas

Protections at Maria Island Marine Park have produced dramatic results, temperate reef and fish ecologist Dr Neville Barrett from the University of Tasmania has found.

Spanning more than two decades, Neville's research into the impacts of marine sanctuaries has spread across a whole range of temperate Australian states including WA, SA, Vic and NSW. But it didn't take long to see the results when the initial research kicked off in Tasmania.

"One of the first big changes we saw was at Maria Island Marine Park at the eastern side of Tasmania," he says. "In a few years of protection we saw a really big increase in some species of fish

and a big increase in rock lobster. It was quite surprising to see the extent to which the rock lobsters [recovered].

Within 10 years their biomass has gone up nearly 20 times. There was a huge abundance of lobsters and not just numbers of them but the sizes. They had gone up from quite small lobsters to monsters that were three or four kilograms in weight.

As far as sanctuary zones go, you are very rarely giving up much. For me, it's an insurance policy to have an area that's natural and allows us to understand what a natural process is so we can better manage the vast majority of the area which we are actually fishing in."

FISHING IN THE GARGUL

Solitary Islands Marine Park, NSW

In Solitary Islands Marine Park, Gumbaynggirr elder and local fisherman Mark Flanders says his people are practising traditional fish catching methods and seeing increased fish stocks.

"This ocean here, our people live with it - we call it Gargul. It's a very important place for our people."

A memorandum of understanding between the Solitary Islands Marine Park and the Traditional Owners acknowledges these practices and allows the use of fish traps.

"These traps have probably been operating for about 6,000 years, we just don't know. For the last 150 years they haven't been. I think marine parks are very important for the conservation of our marine environment. They are conserving the country just as my people were doing for

thousands of years."





