

The Reef's 'no-take' (sanctuary) areas have worked well, with many supporting much larger populations of fish such as coral trout (left) © AMCS.

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THE GREAT BARRIER REEF

The Long-running Saga of Keeping It Great

THEN

The conservation of the Great Barrier Reef first became a public issue in 1967 when there was an application to mine coral limestone from Ellison Reef off the coast from Innisfail, north Queensland. The applicant, who was associated with the sugar industry, proposed that the coral be ground up and used for liming sugar cane fields, an activity that agricultural scientists later discovered had no beneficial value.

Fortunately, the applicant claimed that mining the reef flat on Ellison Reef for limestone would do no harm because it was a "dead" area of no importance. The Wildlife Preservation Society of Queensland (WPSQ) and some cane farmers who didn't want the Barrier Reef mined invited the precursor of AMCS, the Queensland Littoral Society, to send a biological survey team to inspect the Ellison Reef site. Our team was able to show convincingly that this was a perfectly normal reef flat and that mining would be catastrophic. The Queensland Mining Warden's Court heard the

evidence and recommended against allowing mining. However, the Bjelke-Petersen led Queensland Government was reluctant to accept the Mining Warden's recommendation. After all, the reef was potentially the world's largest supply of limestone. We later learned that a major Australian mining company hoped to become a major exporter of Barrier Reef limestone.

The WPSQ, aided by scientific information gathered by the Littoral Society (AMCS), launched what the news media of the day described as the biggest conservation campaign in Australian history. Six months after the Mining Warden's Court recommendation, the Queensland Government finally announced that no limestone mining would be permitted on the Great Barrier Reef.

Then over the Christmas holidays at the end of 1967, we found a Queensland Government notice stating that the entire Great Barrier Reef system would be opened up to oil exploration. The 'Save the Barrier Reef' conservation campaign that developed over the next two years was far larger and this time, global in scope.

A Royal Commission was established in 1970 to examine the risks of oil drilling

on the Reef, but the report it produced at the end of 1974 did not provide a way forward for either the Australian or Queensland governments, who were facing over 90% public support for protecting the Reef.

Consequently, the Australian Government's Great Barrier Reef Marine Park Act (1975), provided for the establishment of a Marine Park across all of the Reef Region (except Torres Strait) in which oil drilling and mining would not be permitted and highly protected areas would be established.

The successful conservation campaign had ultimately encompassed a huge range of individuals and community organizations both within Australia and overseas, many of the world's leading marine scientists, and some of Queensland's strongest trade unions who refused to supply labour for any oil company that wanted to explore on the Great Barrier Reef.

Since then the Great Barrier Reef Marine Park Authority has funded field research to determine what features of the Reef need to be conserved within highly protected zones. Zoning Plans have been developed, with full public consultation, and these now protect 33% of the Marine Park within "no take" areas.

NOW

The 1960s campaign led to a multi-faceted approach to managing the impacts of past, present and future activities on the Reef. It involves a range of government agencies with the Great Barrier Reef Marine Park Authority central, leading research institutions, multi-billion dollar industries, local and regional Reef Guardian communities, conservation NGOs, and plenty of opportunities for public input.

The 'no take' (sanctuary) areas have worked well and many support much larger fish populations. Yet, despite the best endeavours of so many, overall the Reef is in poorer health today than it was in 1981 when it was declared a World Heritage Area.

Some of this is due to 'legacy' issues including loss of mangroves and other coastal wetlands through coastal and port developments. The Reef's declining health is also due to the history of poor land management practices in most coastal catchments resulting in very high sediment, nutrient and pesticide contamination of inshore, and sometimes even offshore Reef waters.

In the 1960s the estimated coral cover of the Reef was around 50%; recent research findings indicate that coral cover along the Reef has declined some 20-30% since the 1960s estimate. Dugongs are the icon species of most concern, with an estimated 90% reduction in their population along the Reef since the 1960s. It also appears that the Reef is about to experience its fourth major outbreak of Crown of Thorns starfish since the 1960s.

We now understand that most of the declines are the result of the enormous changes in land use in the Reef's catchments since the late 19th century. There is growing investment in reversing these changes spearheaded by the \$400 million Reef Rescue program underway since 2008. But these investments are still relatively small compared to what is needed, and

there is a long lag time (up to 30 to 50 years) before the big improvements will be seen.

Added to these chronic catchment-sourced impacts are the pressures from Queensland's coal and gas mining boom triggering increasing regional population growth and big investments in expanding port infrastructure. This could lead to a five-fold increase in shipping traffic through Reef waters, and of course, even larger accompanying risks of serious shipping accidents and marine pollution including the introduction of marine pest species via ballast water exchange and hull fouling.

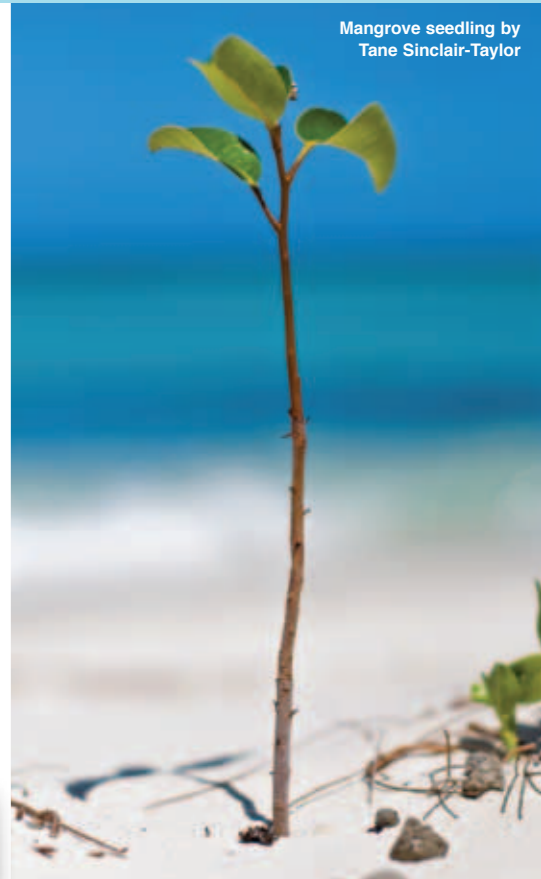
Without big increased investment in managing land-based sources of Reef pollution and significant changes to the current 'business as usual' approaches to coastal and port development, then the Reef is in trouble.

THE FUTURE

It is very likely that the Reef of 2050 will be different to what we see today, and what a few of us experienced in the 1960s. Climate change and the associated big ecosystem modifiers of rising sea temperature, ocean acidification and increasing intensity of cyclones will add to the coastal and catchment pressures, which are much more easily controlled by direct Australian intervention.

Habitat and species within the Great Barrier Reef will adapt, evolve or disappear. No one really can predict the scale and scope of change, other than it will happen.

It does appear that the less stressed the whole Barrier Reef system is from activities along the Queensland coast, the greater chance we have of ensuring that much of what we value about the Reef can survive into the future. We should continue to invest in understanding, reducing and minimising our impacts on the Great Barrier Reef system.



Mangrove seedling by Tane Sinclair-Taylor



The Great Barrier Reef was declared World Heritage in 1981.

Want to find out more information?

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