Living Blue – Marine Reserves  
 ‘Why do we need Marine Reserves?’



**Why do we need no-take marine sanctuaries?**



The Bay of Islands has been fished for hundreds of years. It has provided food and livelihoods for many people and their families. Today, fishers are catching smaller sized fish and less of them. We need a network of marine reserves in the Bay of Islands to help the life return to the sea. Nothing can be taken out of or put into these special places known as 'no-take' marine reserves.

We need parts of the Bay to be as natural as possible so that you and your children can learn what untouched waters are like. If we want to continue fishing for recreation and food then we need fish to breed in these no-take areas and spill out into areas outside the reserves. Scientific studies can also be based on these reserves helping us understand the impact that humans have on the sea.

No-take zones not only protect but also help restore the variety of life that lives in the sea (marine biodiversity). We need to preserve biodiversity because it helps protect ecosystems and the animals and plants that live there. If the food chain (e.g. kina eating kelp, snapper eating kina, people eating snapper) is healthy, in balance, with enough for each link in the chain to eat, then each part of the chain can live. If too many of the top predators (snapper, in this case) are caught, the balance will be upset and the variety and population sizes of marine life will reduce. Whether we like it or not, this is exactly what is happening right now, in our lifetime, in our backyard - the Bay of Islands. There are many reasons why this is happening including the ways in which fish are caught, how many fish can be caught legally (catch limits), but the first and most important step to help the Bay recover is to establish some no-take marine reserves in the Bay of Islands - before it is too late.



Ever seen a kina barren?

When you go for a walk or snorkel along the rocky seashore, have a look out for areas of bare rock and dozens of kina (sea urchins). Do you think this is natural? If you do, think again. These bare rock landscapes covered by grazing kina are known as kina barrens and are not natural. Kina barrens are common along the north-east coast of New Zealand and, until only a few years ago, were thought to be natural. Kina barrens happen when the food chain (e.g. kina eating kelp, snapper eating kina, people eating snapper) has become unbalanced - broken by people fishing out too many of the large predators (snapper and crayfish) leaving only small predators (such as ??) with mouths too small to feed on kina. The size of the kina population is no longer being controlled by larger predators so more kina survive leading to a population explosion! Kina munch through the kelp forests leaving nowhere for fish to breed or raise their young.

But the good news is that if kina barrens are left alone, in a no-take marine reserve for example, the bigger predators (e.g. snapper and crayfish) will return, the kelp forests will grow back and a health marine ecosystem will return.

"We had no reason to believe that kina barrens, widespread throughout northern New Zealand were anything but a natural occurrence. We now know that they are an artifact (result) of overfishing. Kina barrens have all but disappeared at Goat Island and Tawharanui Marine Reserves..."

*Helen Ough Dealy*

*Community Relations Ranger - Project Island Song Advocacy*

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| roger-grace | "We had no reason to believe that Kina Barrens, widespread throughout Northern NZ were anything but a natural occurrence. We now know they are an artifact of overfishing. Kina Barrens have all but disappeared at Goat Island and Tawharanui Marine Reserves... "  Dr Roger Grace - Marine Scientist PhD, QSM |

The photos below illustrate the story.

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