Fish Forever

MARINE SANCTUARY • BAY OF ISLANDS

Ngā ika āke, ake ake, kipiri

PROPOSAL

To protect 10% of the enclosed waters of the Bay of Islands with no-take marine reserves

Community Consultation Document

1st May 2014 prepared by:

Fish Forever, Bay of Islands Maritime Park Inc.

www.fishforever.org.nz

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Photo courtesy Lara Kay Photography / Salt Air

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Leigh Marine Reserve. Photo courtesy Darryl Torckler / Photo New Zealand

The Proposal

Protect 10% of the enclosed waters of the Bay of Islands with no-take marine reserves.

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These two proposed no-take areas will total 6.3% of the enclosed Bay of Islands waters. If the existing rahui area is included, it will be 6.8%. Enclosed Bay of Islands waters are calculated to a line between Piercy Island / Motukokako and Ninepin / Tikitiki.

To bring the total representative area to 10% we would also like to see protected:

- Areas of estuary / sheltered waters
- An area in the western Bay of Islands

We seek public feedback on the two proposed marine reserves, the scientific reserve at Tangatapu and possible locations for additional areas.

We are proposing to recommend a 25-year generational review for the marine reserves.

Waewaetorea Marine Reserve
1003 hectares
3.3% of enclosed BOI waters

Whale Rock
Tenunuhe

Okahu

Waewaetorea

Motukiekie

Urupukapuka

Moturua

Motuarohia
Roberton Island

Mahenotapuku
Bird Rock

Motukokako
Piercy Island

Maunganui Marine Reserve
908 hectares
3.0% of enclosed BOI waters

Maunganui Bay Rahui
157 hectares
0.5% of enclosed BOI waters

Rawhiti Peninsular

Tangatatapu Estuary Scientific Reserve
We propose to protect this area as a scientific reserve under the Reserves Act 1977

Parekura

Please have your say!

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"These sanctuaries are "hope spots" places to save and restore the blue heart of the planet. If the sea is sick, we'll feel it, if it dies, we die. Our future and the state of the oceans are one."
Sylvia Earle
Time Magazine's first Hero for the Planet

If you want this proposal to succeed it needs the community behind it.
Please make your voice heard and put in a submission in support.

- Go to www.fishforever.org.nz and click on "make a submission" or print page five of this document and post it to us.
- Tell us your thoughts about the proposal and the proposed boundaries.
- Give us your suggestions for the location of additional no-take areas covering:
  - An area of estuary / sheltered waters
  - An area in the western Bay of Islands
- Mark the chart on our website where you would like to see protected go to www.fishforever.org.nz and click on "mark the chart".

Please share this document with friends and family who enjoy the Bay of Islands, encourage them to make a submission.

Submissions close Friday 13th June 2014

Photo courtesy Lara Kay Photography / Salt Air

Please have your say

COMPLETE THE PUBLIC SUBMISSION FORM

For this proposal to succeed we need your support. Please take a few minutes to fill out this public submission form.

You can do this online at: www.fishforever.org.nz
or print, complete and post this page to
Fish Forever
C/- 15 Pukewhau Rd,
Opito Bay, RD1
Kerikeri 0294

Name _____

Email _____

I permanently reside in _____

Describe the activities you enjoy in the Bay of Islands

Fisher boat based, line or net	Yes/No	Scientific study	Yes/No
Fisher land based, line or net	Yes/No	Nature watching	Yes/No
Fisher Commercial	Yes/No	Bird watching	Yes/No
Seafood Gathering	Yes/No	Beach walking/tramping/hiking	Yes/No
Diver seafood gathering	Yes/No	Boating	Yes/No
Diver spearfishing	Yes/No	Sailing	Yes/No
Diver photography/watching	Yes/No	Recreation general	Yes/No
Snorkelling	Yes/No	Camping	Yes/No

Other (please specify)

Marine life and fish populations are declining in the Bay of Islands — strongly agree / agree / not sure /disagree /strongly disagree

Overfishing is a concern for the Bay of Islands — strongly agree / agree / not sure /disagree /strongly disagree

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Do you support the proposal as presented? — yes / no

Do you approve of having marine reserves in the Bay of Islands? — strongly agree / agree / not sure /disagree /strongly disagree

Establishing a network of marine reserves in NZ is a good idea — strongly agree / agree / not sure /disagree /strongly disagree

How much of the Bay of Islands would you like to see as a marine reserve? — 0% / 1% / 2.5% / 5% / 7.5% / 10% / 15% / 20% /30% / 50%

Would you visit a marine reserve in the Bay of Islands once it was established? — yes/no

What estuary/sheltered water area would you like to see protected as a marine reserve in the Bay of Islands?

What area in the western Bay of Islands would you like to see protected as a marine reserve?

What modifications would you like to make to the proposal or proposed boundaries?

I would like to be placed on an email list to receive results of this consultation — yes/no

I would like to be placed on an email list to receive regular updates on work to restore and protect the Bay of Islands — yes/no

Our Vision

Imagine a place teeming with marine life in all its richness, where the natural abundance has been restored, where plants and creatures exist undisturbed by humans. Our marine habitats desperately need these spaces: safe havens to breed, to recover.

Imagine a place where you, your children and future generations can don snorkel and mask to experience that natural abundance firsthand: watch in wonder as schools of big snapper and kingfish cruise by, get up close with crayfish, fin through clouds of blue maomao and trevally.

The magic of this experience simply cannot be described.

We desperately need these places to remind us what we stand to lose and must fiercely protect. We must teach our children what natural abundance looks like and how far we've come from it. With that awareness, future generations may do a better job of looking after the ocean environment than we have.

Simply for the sake of protecting the ocean's biodiversity it is the right thing to do.

There will be other benefits too. Replenished marine life does not stay exclusively in the reserve. In other parts of the country, commercial and recreational fishermen like fishing on marine reserve boundaries; there's simply more fish there!

The opportunities for eco-tourism are immeasurable: marine reserves provide a memorable snorkel and dive experience that will draw visitors again and again.

Scientists love reserves. They provide a baseline for their studies and allow us to monitor human impact.

Fish Forever's vision is to protect 10% of the enclosed waters of the Bay of Islands in a network of no-take marine reserves.

A call to action

This proposal is a way for you in the community, to positively engage for the future of the ocean.

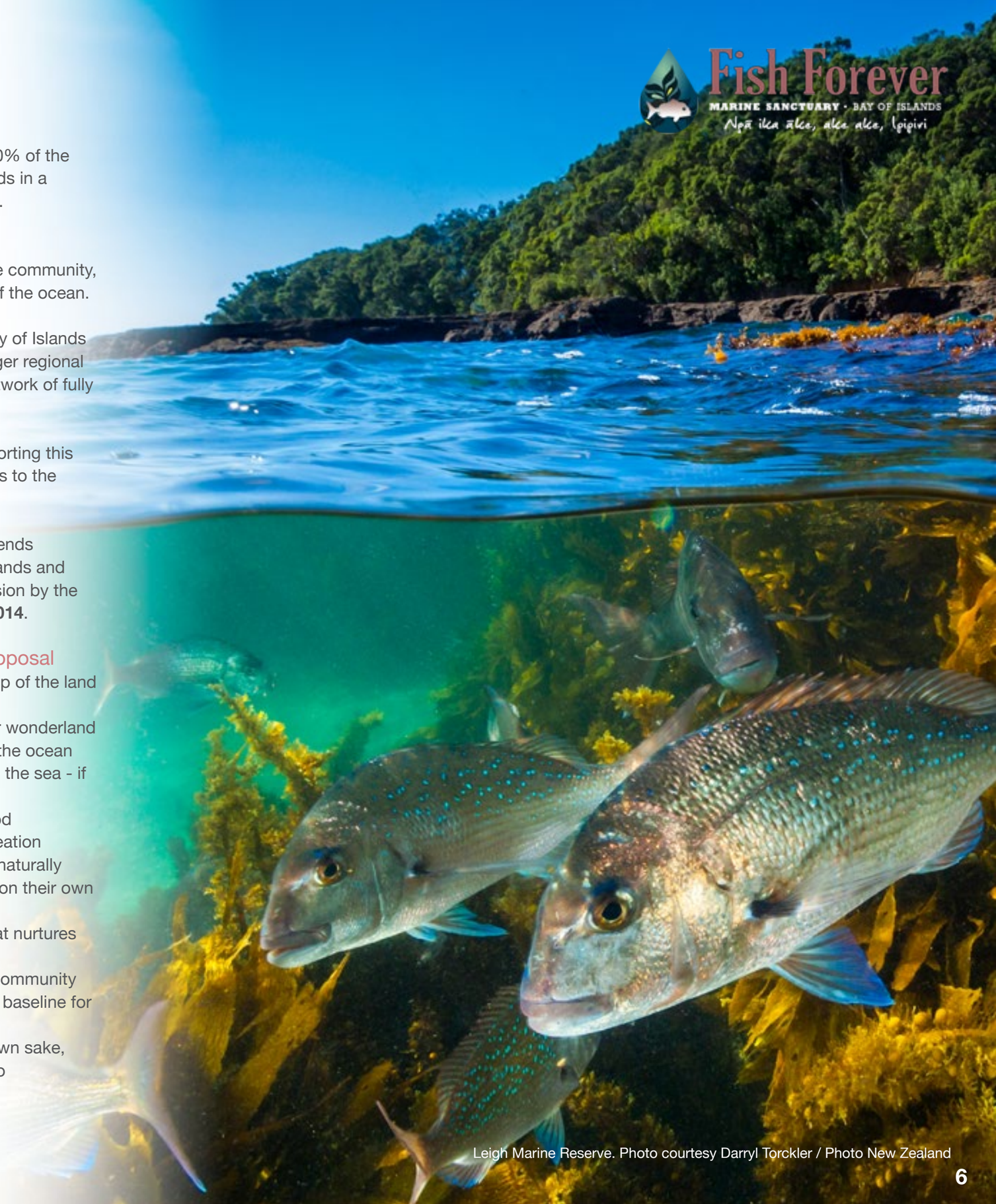
Achieving 10% protection in the Bay of Islands is one important step towards a larger regional and national goal of an effective network of fully protected marine areas.

You can make a difference by supporting this proposal and adding your own ideas to the process.

Please share this document with friends and family who enjoy the Bay of Islands and encourage them to make a submission by the closing date of **Friday 13th June 2014**.

Ten reasons to support this proposal

- Our responsibility of guardianship of the land and sea that sustains us
- To inspire us with an underwater wonderland so that we feel connection with the ocean
- To stop the degradation of life in the sea - if we don't protect it we'll lose it
- So we can always gather seafood
- So we can enjoy fishing for recreation
- So that our tamariki know what naturally abundant waters look like, right on their own doorstep
- To create a thriving economy that nurtures the environment
- To bring prosperity to the local community
- For scientific study, to provide a baseline for monitoring human impact
- To preserve biodiversity for its own sake, because it is the right thing to do



Leigh Marine Reserve. Photo courtesy Darryl Torckler / Photo New Zealand

The Bay needs protection now

EVER SEEN A KINA BARREN?

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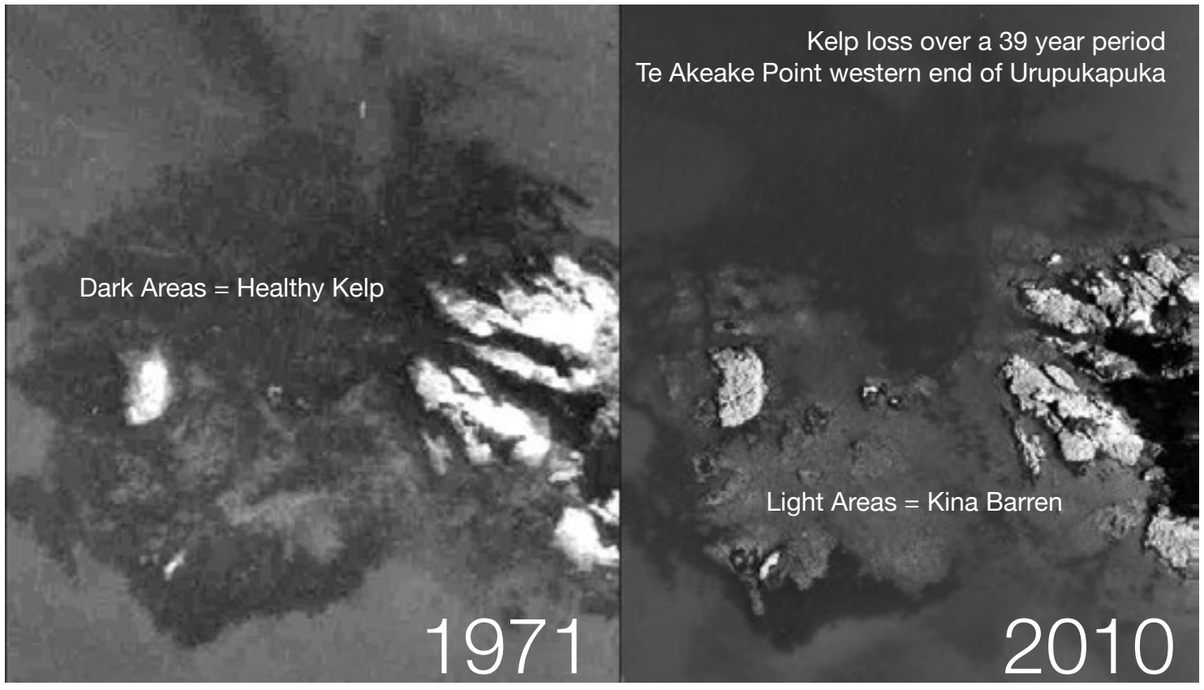
"We had no reason to believe that kina barrens, widespread throughout Northern NZ were anything but a natural occurence. We now know they are an artifact of overfishing. Kina barrens have all but disappeared at Goat Island and Tawharanui Marine Reserves..."
Dr Roger Grace Marine Scientist PhD, QSM

So you think that the bare rock and dozens of sea urchins you see when snorkelling in the Bay of Islands are natural?

Think again. These zones of devastation are known as kina barrens. Kina barrens are common on the North East coast of New Zealand and were thought natural until only a few years ago. The photos below illustrate the story.

Kina barrens arise when the food chain has been unbalanced by humans fishing out too many large predators (particularly the big snapper and crayfish) leaving only low numbers of smaller predators who are too small to feed on kina. So the kina population explodes. They munch through the kelp forests, which are the nurseries of the sea, leaving no safe places to breed or for juveniles to hide.

And so the cycle goes...until only kina and degraded kelp forest remain, with barely a fish in sight. The good news is that if areas are left alone, the bigger predators return and the kelp forests grow again, encouraging a healthy marine ecosystem.



Kina eat kelp

Big snapper and crayfish eat kina

In areas of overfishing kina numbers explode, they chew through kelp forests leaving lifeless kina barrens

In protected areas with no fishing, the large predators return and the kelp forest is restored

We need healthy kelp forests to support a full range of marine life, for food, for cover, to breed

What it used to be like

WHERE WILL WE BE IN ANOTHER GENERATION?

Piercy Island Marlin

"We came into the Cape (Brett) about four o'Clock. There were fifteen boats around the great rock (Piercy) and five were fast to fish. Eight of the other boats had one or two Swordfish onboard"

A rugby field of school fish

"We proceed to Bird Rock. Acres of Kahawai were darkening the surface and myriad little white gulls were hovering and fluttering over the top of them. The fish raised a white cauldron on the water and a sound exactly like a brook rushing over stones. The birds were screaming. Every now and then the kahawai leaped as one to escape some enemy underneath and made a prolonged roar in the water."

These are extracts from Zane Grey's Tales of the Anglers El Dorado – Gamefishing in the BOI (1926).

Grey talks of seeing "acres of school fish". To put this into perspective, two acres is roughly equivalent in size to a rugby field.

Based on these observations, one can only imagine the life around Piercy Island and Bird Rock in 1926.

The sliding baseline

There is a huge and elusive factor that often goes unremarked when we talk the bounty of the Bay of Islands. That factor is known as the sliding baseline.

Wikipedia describes this term as one "used to describe the way significant changes to a system are measured against previous baselines, which themselves may represent significant changes from the original state of the system".

Applied to fisheries, this is described as "the shifting baseline syndrome", a term coined by Daniel Pauly in 1995 to refer to the tendency of fishery biologists to consider as the natural baseline the conditions that existed at the beginning of their careers.

In other words, how we remember the bay as children is different from the way our parents or grandparents remember the bay from their youths.

Another expression for this is generational amnesia - the implications of which are being investigated by both NIWA (led by Alison MacDiarmid) and Auckland University Marine Laboratory at Leigh (led by Richard Taylor).

Every generation thinks their memory is the truer reflection of the natural state, when in fact the true decline of the marine ecosystem has been masked as each generation redefines what is perceived as "natural".

"Our marine environment is magnificent. It is not some trivial extra, like the ribbon on a parcel, but a major asset, worthy of our care and attention"

Bill Ballantine


Photo: Alexander Turnbull Library


Photo: Alexander Turnbull Library


Photo: Alexander Turnbull Library


Photo: Alexander Turnbull Library

Public Survey

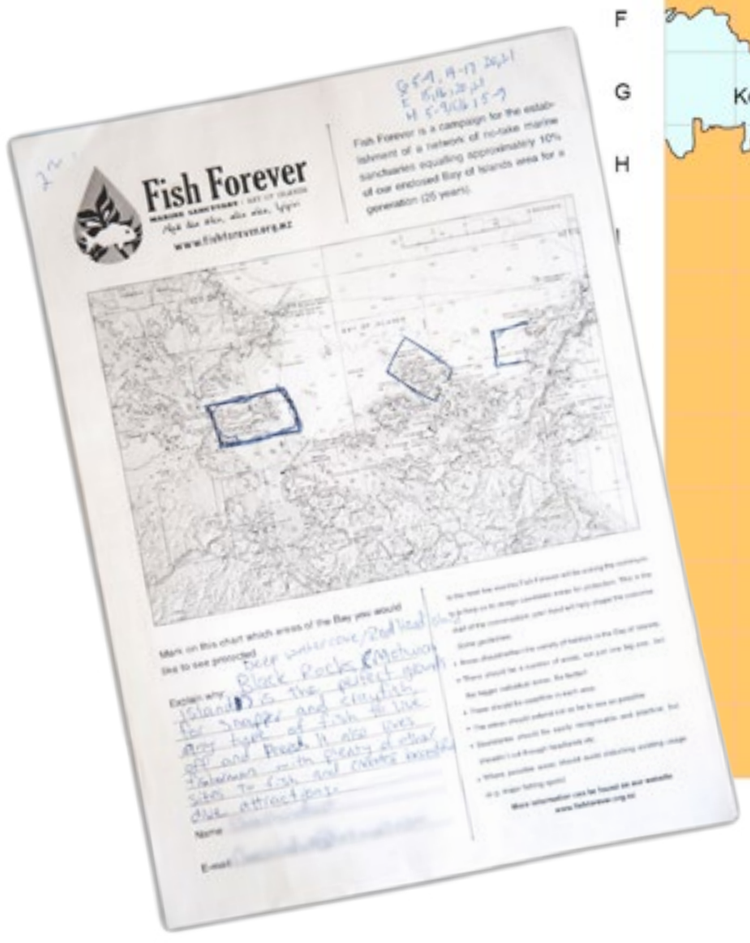
WE ASKED WHERE WOULD YOU LIKE TO SEE PROTECTED

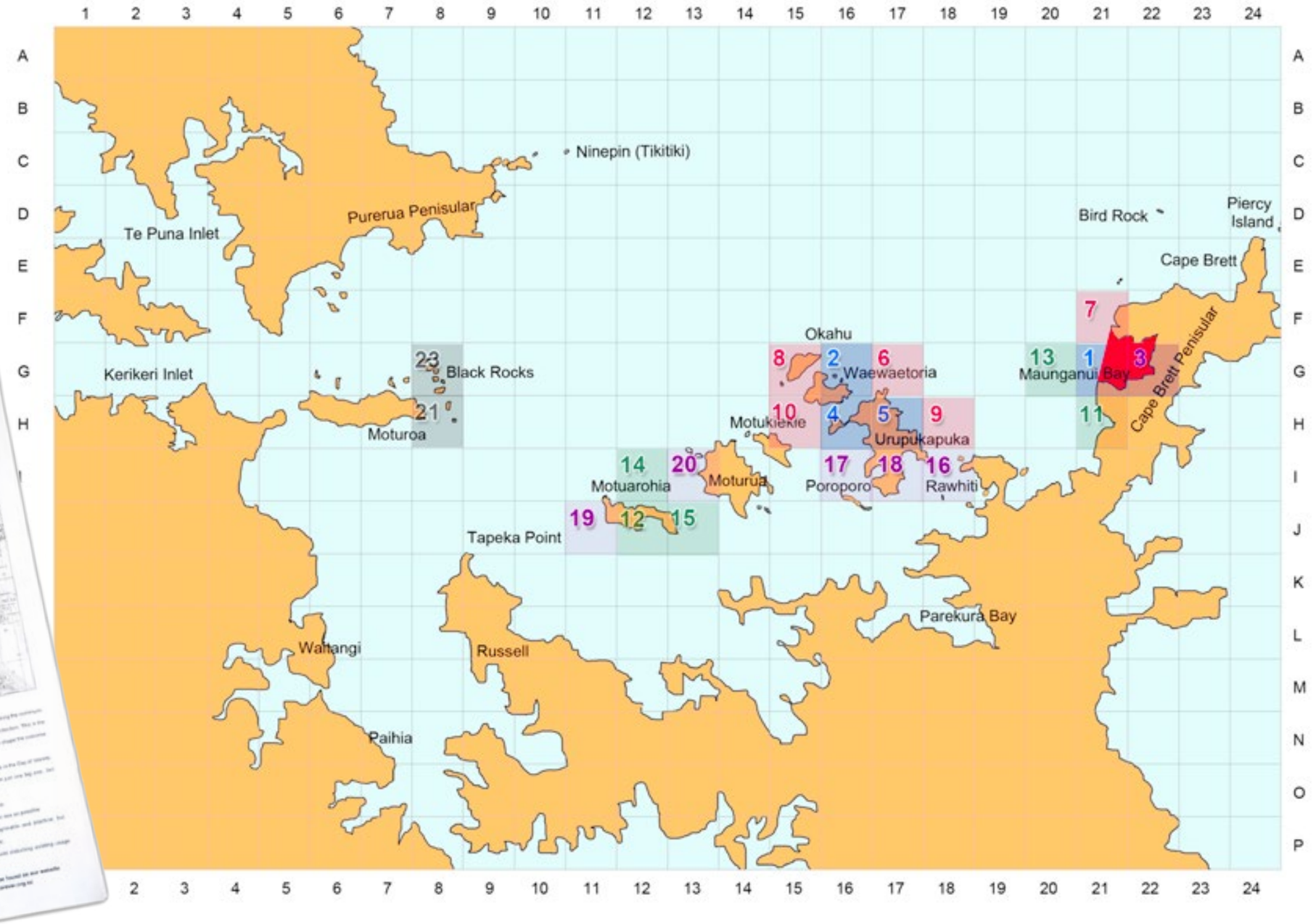
In 2011 Fish Forever conducted a public survey asking local people where they would like to see protected areas in the Bay of Islands.

430 people marked the chart.

A grid was overlaid on the chart and the results recorded.

The top grid squares are shown here in list of preference. #1 = most popular





Waewaetorea Reserve

A WORLD CLASS LOCATION

Rich biodiversity - an impressive range of natural characteristics

The proposed marine reserve site is an excellent example of the diversity of the Bay of Islands marine environment. It has good representative examples of the following moderate to clear-water marine habitats, which supports a wide range of marine life:

- Intertidal to shallow to deep (50 m) rocky reef, boulder/pebble and sand bottoms at all levels of wave exposure.
- Intertidal to shallow to deep (50 m) low-light caves/arches/walls at all levels of wave exposure.
- High current channels.

Peoples' choice

This area could be described as "the peoples' choice" – it was one of the most popular areas selected in a 2010/2011 survey of over 400 local people who were asked which parts of the Bay of Islands they would most like to see protected.

Great potential to recover - it's not too late!

This area has great potential to recover from many years of damage from too much fishing pressure, and to allow restoration of damaged habitats and re-building of heavily exploited fished species.

A place to bring your children - a very special experience right on our door step

Imagine anchoring off the beautiful Waewaetorea Beach; your family dons masks and snorkels and jumps over the side into a fully protected reserve. In time, they'll experience what natural abundance really looks like, with schools of snapper, koheru, maomao, trevally, kahawai and kingfish as they used to be. Visibility here is regularly up to 15 metres.

The rare, the special, the distinctive
A wide range of marine life

The biogenic seafloor (made up of living plants and animals and the remains of animals that used to live here) includes: subtidal (submerged most of the time) green-lipped mussel beds, seagrass meadows, widespread soft bottom algal turf habitats with rhodolith beds and substantial areas of *Tawera* clam beds. Not to mention the subtropical fish species.

A classroom in the sea
Top quality educational opportunity

Because this area is very accessible with good anchorages and beaches, it has excellent educational potential for adults and children to learn what natural marine habitats are like, and to understand the recovery process.

Complementary to recreational fishing

The boundaries have been carefully designed to avoid some of the main recreational fishing sites (skirting the inside of Tenunuhe / Whale Rock) while still encompassing sites with good potential for recovery of the popular species taken by fishing.

Human history and influence

There lies a wealth of human archaeology in the proposed area. Urupukapuka and Waewaetorea were sites of early Maori occupation and there is a strong traditional history. It also features in early European history: Waewaetorea Beach is where French explorer Marion du Fresne first stepped ashore in the Bay in 1772.

A growing conservation legacy
Full ecological restoration – land and sea

The site links to the conservation efforts of Project Island Song, DoC and Ngati Kuta and Patukeha hapu, which has focused on restoring native plants and animals to the now pest-free islands of Ipipiri.

Sustainable tourism
Potential for ecotourism ventures

It is a popular tourism and recreation area. As such it has great potential to become a top tourist and passive recreation area in an entirely sustainable way.

This area will provide an excellent opportunity for scientific study of marine life recovery.

The NIWA Ocean Survey 20/20 research revealed many secrets about this area. Recovery of several of marine habitats typical of the northern North-East biogeographic region can be followed.

Download our boundaries report at www.fishforever.org.nz.

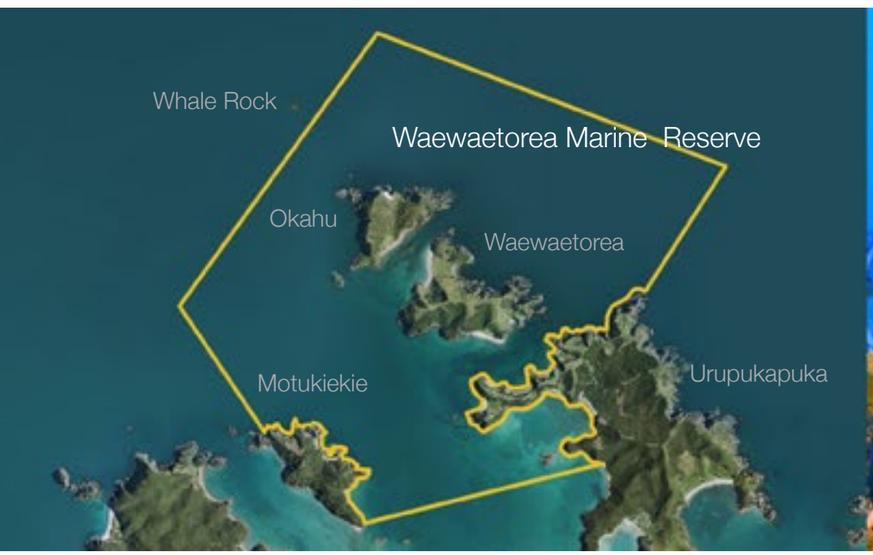


Photo: Paihia Dive

Photo: Lara Kay Photography / Salt Air

Waewaetorea Reserve

THE REPRESENTATIVE AND THE RARE

On the seaward margins of the islands and dividing channels, the visibility is sometimes more than 15 metres. Patrolling the exposed outer faces and headlands in summer are schools of kahawai and sometimes fast moving packs of large kingfish. Dense swathes of seaweed festoon the rock faces, but in some places there are ghostly pale surfaces where kina have cropped the growth. Occasionally, in gaps between boulders the long, slender black spines of *Centrostephanus* sea urchins radiate from their small dark round bodies. Great clefts into mother rock are almost devoid of light, so this is where filtering invertebrates predominate, often walls of jewel anemones. A dark crevice may be defended by the parrying feelers of half a dozen smallish red crayfish, and deeper, where the reef meets the sand, a yellow moray eel faces off with attitude.

The outgoing tide in the outer channels brings blue maomao, sweep and sometimes heaps of little snapper up into the column to scavenge. A hiwihiwi lies still on the bottom ready to woof. Pelagics hang about on the edge of visibility: koheru, kahawai, sometimes trevally, occasionally schools of small tuna. A swarm of tiny squid flow back and forth with the surge. On the sand bottom further into the channel, an eagle ray has worked sand up over each wingtip for camouflage. Deeper down are great beds of morning star clams, their shells—zigzagged in an infinite variety of patterns—just visible. There are also small patch-reefs inside these sheltered channels. You can sometimes find rare treasures such as the painted moki and giant wandering anemone amongst these reefs.

The extensive biogenic seafloor flats that link Waewaetorea and Urupukapuka islands with Motukiekie are largely made up of the remains of animals that used to live there, and in the water above. This is scallop and dog-cockle country, and also where you encounter the lairs of octopus surrounded by shells. The patchy cover includes coralline turfs, rhodoliths (red algae that live in a calcareous commune) and vivid green miniatures of a forest-tree which interrupt the otherwise light-coloured palette of the seafloor the seaweed rimurimu.

The luxuriant seagrass meadows of Otiao Bay, where boaties seek a night without rock ‘n roll, are a nursery for piper, snapper and trevally. And this meadow is special because it is linked almost seamlessly to a pretty, little mangrove estuary— the only one on an island in this part of the world.

At anchor at night, a strange jellyfish floats by: attached to its bell is a strange transparent leggy animal—the larval stage of a slipper lobster. This serves to remind us how close we are to the blue water and the really deep ocean, with its host of seldom-encountered treasures.

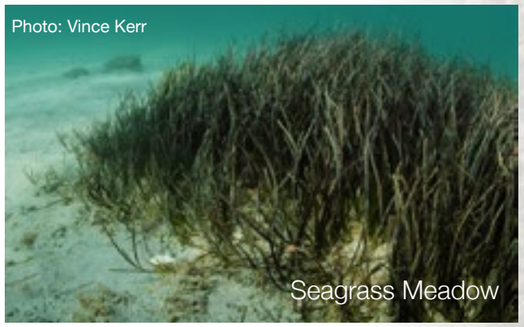


Photo: Vince Kerr

Seagrass Meadow

Photo: Vince Kerr

Rhodolith

Photo: Vince Kerr

Centrostephanus Sea Urchin

“a pretty, little mangrove estuary - the only one on an island in this part of the world”

Photo: Dean Wright

Maunganui Reserve

HABITAT DIVERSITY

The proposed area has good representative examples of clear-water, marine habitat with strong oceanic influence including:

- Intertidal to shallow to deep (50 m) rocky reef, boulder, pebble/sand bottoms, with moderate to high exposure to wave action.
- Low light caves, arches and walls with moderate to high exposure to wave action.

People's choice

This area was amongst the most popular choices in our survey asking the public where they would like to see protected (see page 11).

Rahui Maunganui Bay - a recovery already underway

Maunganui Bay, part of the proposed area, has been protected from fishing (except for gathering of kina) since 1st Dec 2011. The rahui was established by Ngati Kuta and Patukeha hapu under section 186a of the Fisheries Act. Fishing restrictions will remain in force until 30th November 2014. More info: www.rahui.org.nz

The Frigate Canterbury

Scuttled in 2008, the Canterbury has become a haven for marine life. It provides all manner of surfaces and hiding-holes. Exquisite jewel anemones line handrails. Extensive vertical surfaces have been rapidly colonised by an array of filter feeders and sea weeds. Room-shaped caverns suit certain rather shy fishes. Patrolling throughout the frigate are snapper, porae, leatherjackets and wrasses. And never far away, eternally attracted to an artificial reef like this, circling mackerel, koheru, kahawai and kingfish—and dense schools of plankton-feeding butterfly perch.

Coastal Cliffs: Maunganui Bay to Ohututea

Out on the surrounding open shores, the steep sides of the coastal cliffs—above and below water—make for hardy residents. Fish and shellfish variety is greater than in Maunganui Bay itself.

The exposure is greater with periodic heavy seas crashing into the shallow habitats which affects the zonation of the algal communities and species that live there. Deep gashes in the rock form twisting canyons, dense kelp surging back and forth in the shallows, and shaded arches studded with jewel anemones and yellow zooanthids.

The rare, the special, the distinctive

Motutara / The Twins are rock pinnacles that erupt straight up from the seabed 50 metres below and interrupt the water flow. This upwelling brings cooler and more fertile waters to the surface. This leads to plankton blooms that help power the pelagic fish foodweb line—culminating in the great billfish and tunas and marine mammals. The nearby natural reefs in Maunganui Bay are probably the most likely place in the Bay to encounter packhorse crayfish.

Human history and influence

The area has a rich history of Maori occupation and tradition. It links to the land conservation efforts of the Ngati Kuta and Patukeha hapu on Rakaumangamanga/ Cape Brett Penisular in reducing pests and restoring the ngahere bush/ forest through Nga Whenua Rahui.

Complementary to recreational fishing

The proposed area has been carefully designed to avoid some of the main recreational fishing sites (Mahenotapuku/Bird Rock and Motukokako /Piercy Island while still encompassing many sites with very good potential for recovery of the popular species taken by fishing.

Sustainable tourism

Marine reserves will attract divers, snorkelers and sightseers of all types. This area has great future potential to become a top tourist and passive recreation area in an entirely sustainable way.

Download our boundaries report at www.fishforever.org.nz.

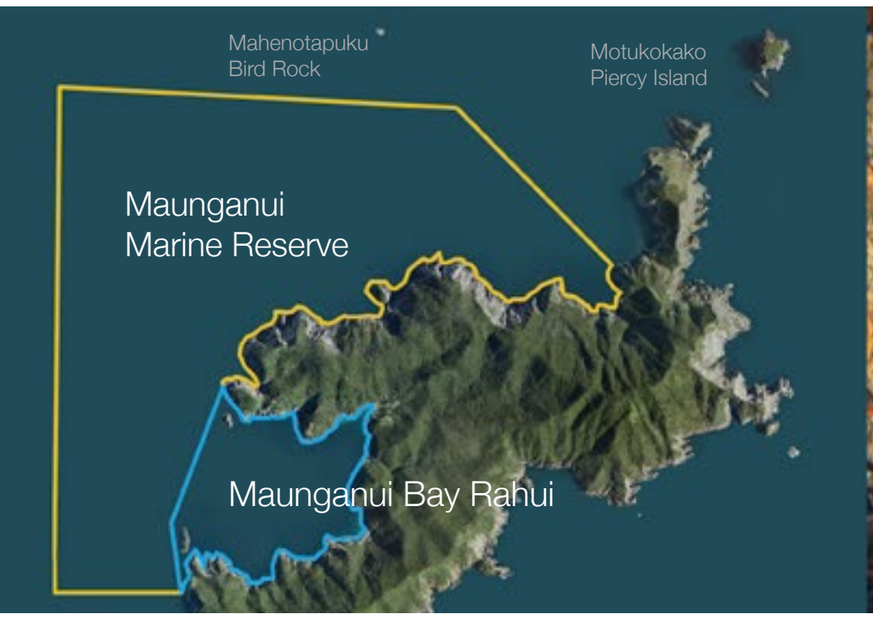


Photo: Northland Dive

Photo: Lara Kay Photography / Salt Air

Maunganui Reserve

THE REPRESENTATIVE AND THE RARE

Here's a delightful juxtaposition of the tumultuous and the tender.

In the nook of Deep Water Cove, a boatie finds protection from almost any weather. So too do many subtropical creatures that seldom make an appearance anywhere else in Aotearoa. You'll find, too, one of the great hikoi-ists of the world, the highly migratory packhorse cray, just taking a breather.

And sitting in the middle of the bay is the frigate *Canterbury*. Nature herself provides few handrails to be illuminated with exquisite jewel-anemones; or extensive vertical surfaces to be colonised by filter-feeding animals; or room-shaped caverns to suit even the shiest of fishes. Never far away, eternally attracted to an artificial reef like this, are circling mackerel, koheru, kahawai and kingfish—and sometimes dense schools of plankton-feeding butterfly perch.

Yet most of the Maunganui Reserve area is fully exposed to the might of the Pacific, the land's defences being majestic vertical cliffs plummeting to the great depths, just a rock ledge near high water dividing the two worlds.

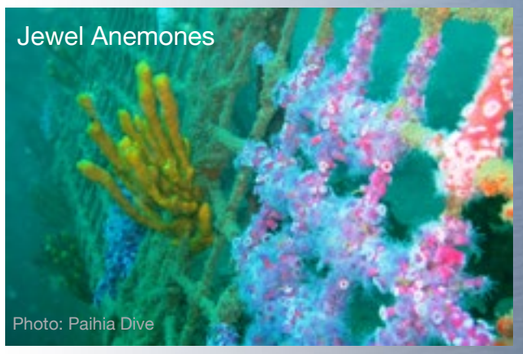
Islets emerging offshore from the depths induce upwelling of nutrient-rich waters which sets in train feeding frenzies that reach their apex with the great dolphins and whales. Gannets bomb; terns sip. Kingfish slash through aggregations of smaller fish.

The islands at the entrance to Maunganui Bay also create their own unique habitats by channeling the currents close to the shore. Careful observations in summer may reveal the seasonal use of these areas by schools of visiting blue knifefish harassing the local residents, or by aggregations of male giant boarfish in their spawning colours. Lonely Spanish lobsters (a big version of the Moreton Bay Bug) cling to the sheltered walls hoping for an encounter with another trans-Tasman explorer.

The huge swaying fin right by The Twins isn't a shark, it's a huge sunfish. At night, the yacht's wake is clearly defined by bioluminescence as we make our way home.

Canterbury Maunganui Bay

Photo: Northland Dive



Jewel Anemones

Photo: Paihia Dive

A rare Giant Boarfish
will we see these in the future?

Photo: Warren Farrelly

"most of the Maunganui Reserve is fully exposed to the might of the Pacific"

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Photo: Chris Richmond

Tangatapu Estuary

A HIDDEN JEWEL

The Tangatapu estuary is at the eastern head of Parekura Bay. Its freshwater source comes via the Tangatapu wetland, at the starting point of the walkway to Whangamumu. We propose that this area be protected as a Scientific Reserve under the Reserves Act 1977.

Habitat range

The estuary, which discharges across the delta of the Wairoa and Tangatapu streams, has a mosaic of salt marsh, mangrove shrubland, bare intertidal to shallow mud, sand and rocky reef habitats, surrounded by an ancient swamp forest of large mangrove trees. The radiating networks of mangrove breathing roots and dense saltmarsh slow down currents and wave energy, encouraging silt to settle here rather than smothering seagrass meadows in more open parts of the Bay—the intertidal seagrass bed on the delta was once 15 ha, but has not recovered since its loss in the late 1980's.

Estuary dwellers

The waters of the estuary and delta are home to yellow eyed mullet, grey mullet, parore and seasonal whitebait, John Dory, kingfish, snapper, eagle rays and short-finned eels.

A quiet paddle through the estuary at high tide gives you the opportunity to observe shags, herons, kingfishers, oyster-catchers, dotterels, banded rails, fernbirds, plovers and, if you are very quiet, one of the resident bittern or matuku.

So what drives the diversity and abundance of fish and birdlife so easily seen within the estuary? The main reasons are the abundance of food and the complexity of the habitat. So where is the food coming from?

Apart from the suspended micro-algae and zooplankton driven into the estuary from open water production, the main sources of food for estuary dwellers are the shellfish, worms and crabs that find shelter in the surface sediments. They, in turn, find their food in the complex microbial communities that decompose the leaf litter of the mangrove and saltmarsh production. These communities provide the nutritional equivalent to peanut butter in the starchy remains of production from the watershed and estuary.

So why protect habitats like Tangatapu estuary?

Apart from their roles as unique habitats for fish, wildlife and invertebrate communities, they have important functions in trapping and transforming sediments and nutrients from degraded catchments. They convert nutrients lost from the land into primary and secondary production that can be exported to wider biological communities within the Bay. This estuary also provides recreational opportunities for exploring a peaceful aquatic environment in its natural state which is readily accessible from either Rawhiti Road or from kayak launching sites in Parekura Bay. It represents the best example of a relatively undisturbed, mature mangrove–saltmarsh ecosystem in the eastern Bay of Islands which has a largely intact and repairable catchment.

What are the threats?

Mangroves in Northland are under threat from some people anxious about recent expansion within their natural range. Several areas have been cleared already, but few areas have been secured.

There has been lobbying by some mooring owners for a marina in Parekura/Waipiro Bay. Local landowners have been opposed to the Waipiro Bay option proposed recently by the Northland Regional Council. There is currently no protection for the eastern Parekura Bay/ Tangatapu estuary site.

While there are several projects in the adjoining lowland catchments aiming to restore the pateke (brown teal) breeding habitats, the summer flocking sites in the Tangatapu/Wairoa estuaries were abandoned in the 1990s, partly through the disturbance impact of jetskis and powerboats.

Tangatapu Estuary

WHAT NEEDS TO BE DONE

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Ngā ika ake, ake ake, Ipipiri

Photo: Dean Wright

One option for legal protection could be a highly protective zoning under the Regional Coastal Plan, such as that applied to the northern Waitangi estuary, but this does not safeguard the biota. Another option is a marine reserve, but these have rules targeted at activities which are seldom undertaken at this site. Our preferred option is the more complete protection afforded by a Scientific Reserve classification under the Reserves Act 1977. In other estuaries, such as the Kaipara and Ohiwa harbours, the best quality mangrove habitats are classified as Scientific Reserves to fully protect them, while enabling research and managing appropriate public access.

In addition to legal protection, Tangatapu estuary and its delta need additional protection from the sediment and nutrients lost from those parts of its catchment subject to forest clearance and development in the past.

Fortunately, this protection is already underway with the Tangatapu wetland restoration project. This is reactivating the floodplain storage functions of the catchment upstream of Rawhiti Road by restoring the natural kahikatea-dominant swamp forest. The project is also reactivating the meander pattern of channels and ox-bows on the valley floor that provided breeding habitat for pateke until the 1980s.

This project is a crucial part of reversing the loss of habitats and species in New Zealand. 95% of New Zealand's kahikatea swamp forests have been destroyed, mostly due to draining for farmland. This has destroyed key habitats for pateke (brown teal) which along with pressure from introduced predators had resulted in these birds becoming our rarest species of waterfowl.

Once restored, the Tangatapu wetland will be the missing link connecting the "Kauri to the Cockles". This area will provide a diverse habitat for bird species including bellbird, North Island robin, pateke, fern bird, bittern, dotterel, stilts and herons.

For more information on the wetland restoration project visit: www.livingwatersboi.org.nz

LIVING WATERS
Bay of Islands ~ Wai Ora

Special Things

MARINE MAMMALS, SEABIRDS, GEOLOGY

The Bay of Islands' unique variety of different marine habitats provides ideal foraging and shelter conditions for marine mammals.

The area constitutes a vital habitat for a semi-resident population of the nationally endangered bottlenose dolphin and is an important feeding ground for NZ's nationally critical orca (killer whales).

Common Dolphin & Brydes Whale
The outer waters of the Bay are home to a population of common dolphin and, occasionally, the nationally critical Bryde's whale Other species include humpback, pilot and the false killer whale.

Photo: Jochen Zaeschmar

Bottlenose numbers declining
There is growing concern regarding the abundance of marine mammals in the Bay of Islands. Scientific research shows a decline in the number of individual bottlenose dolphins frequenting the area. While the underlying causes of this local decline remain unclear, it coincides with a shift in habitat use. In the past, bottlenose dolphins would primarily use the sheltered waters within the islands, only traversing the open waters to cross the Bay. However, recent research shows decline in the use of these sheltered waters, with dolphins now spending most of their time in the exposed waters of the middle ground. Bottlenose dolphins in the Bay of Islands feed mainly on kahawai and yellow-eyed mullet; a shift in prey distribution and availability is a possible explanation for this marked behavioural change.

Photo: Jochen Zaeschmar

Orca numbers declining
New Zealand orca have also suffered a decline; tour operators sighting reports show a marked drop in recent years. While there is no evidence of a national decline, it appears that orca are increasingly avoiding the Bay of Islands. Reasons for this are not fully understood; but a decline or shift in prey availability would adversely affect the species local feeding ecology, causing it to forage elsewhere. The New Zealand orca diet consists primarily of various ray and shark species. The sheltered waters of the islands have been an important feeding ground for them. The proposed protection of waters within the Bay of Islands and subsequetnt restoration of biodiversity is a positive factor in safe-guarding marine mammals and their habitat. Replenishing food sources may lead to a return of some of New Zealand's most revered and enigmatic whales and dolphins.

Photo: Jochen Zaeschmar

New Zealand fur seal
The once abundant New Zealand fur seal is slowly increasing in numbers with haul out sites along the tip of Cape Brett Peninsula.

Geology
The Marine Reserve Act says reserves may contain "underwater scenery, natural features of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest". While we often focus on the fish and other marine life when considering marine reserves, they are what they are largely because of the geology and the ocean's physical processes that created the various habitats they occupy.

The two proposal areas stand out in the wildly diverse and stunning geology of the Bay of Islands that we see today.

From the easily accessible vantage points on both Urupukapuka and Waewaetorea Islands and the Cape Brett Peninsula, there are outstanding seascapes in all directions. Many are more than beautiful – they are simply breathtaking.

The diversity of beaches and coastal landforms within such a relatively small area is both typical for Northland and unique for the Bay of Islands. Of national scientific significance are the remnant shore platforms, stacked a few metres above the present wave platforms and a legacy of the last interglacial more than 100,000 years ago. In the intervening period, in times when sea levels were lower, waves battered a highly indented coast to carve out of the eroding greywacke rock striking caves, overhangs, pinnacles, gutters, wave platforms and submerged beaches. All these, together with a mosaic of sediments ranging from fine, white sands to boulders, make for a wealth of habitats for plants and animals to colonise.

Further reading: J Gibb 2012 Application of geology and physical oceanography to establish a marine reserve in an outstanding site, Eastern Bay of Islands, NZ.

Seabirds
The value of seabirds as 'ecosystem engineers' is being increasingly recognised by conservationists seeking to re-establish functional native ecosystems.

Seabirds occupy niches in virtually every trophic layer of marine food webs, including the important role of predator, of surface feeding fish species. As apex predators at the top of the food chain seabirds are indispensible contributors to the overall health and resilience of marine ecosystems by predating weak or injured individuals within schooling fish species.

Predator-free sites are vitally important to the survival of a suite of threatened seabird species. The number of (introduced) predator free islands within the Bay of Islands, and the ongoing weed control programme, will give seabirds the best chance of success during their breeding season by protecting nesting habitat and drastically reducing chick mortality.

Impacts on marine resources such as overfishing and pollution are frequently reflected in seabird population dynamics, including shifts in population size. Creating a network of marine protected areas (including 'no take' marine reserves) will help seabird populations in the bay area recover, stabilize and (in some cases) increase by improving food security through improved, localized fish school density and overall abundance.

Photo: Dean Wright

Impacts

COMMERCIAL, RECREATIONAL & CUSTOMARY FISHING

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No-take marine reserves, by their very nature, impact on the fishing opportunities of everyone – commercial, recreational, customary. The law says that in establishing marine reserves, the activities of existing users should not be 'unduly affected'. So, how much would the marine reserves proposed for the Bay of Islands affect fishers and other users?

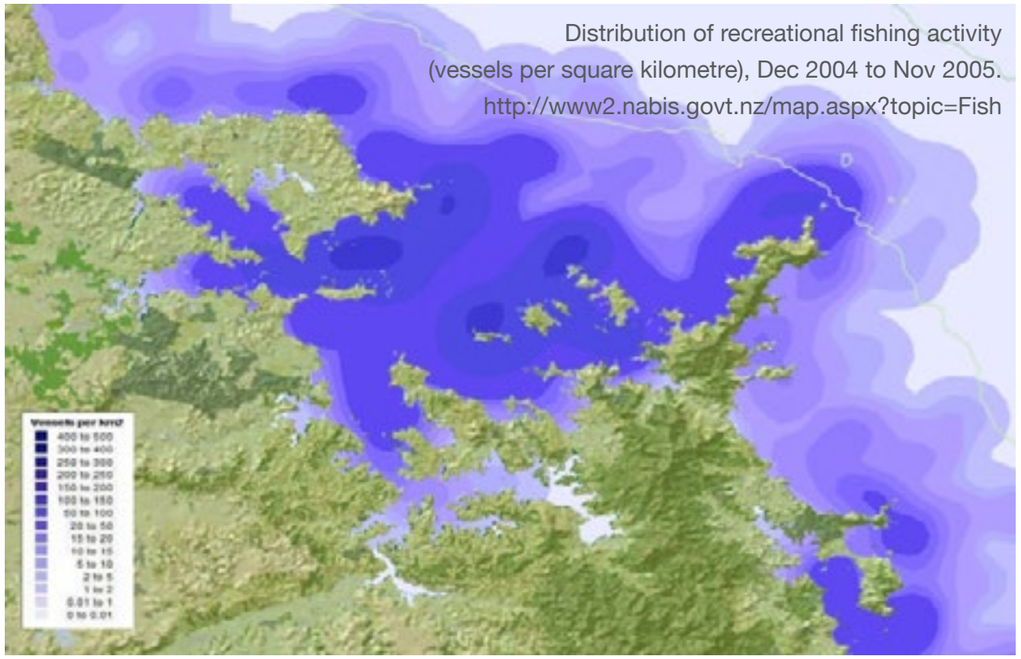
Commercial fishing

Just a handful of locally based vessels fish the waters of the Bay of Islands, using nets and pots. Closure to fishing of the proposed marine reserve areas directly affects pot fishing the most, but also beach-seining.

But from time to time, commercial vessels – netters, liners, seiners and trawlers - visit the Bay of Islands from elsewhere. All could be affected to some extent, although the proposed closed areas are small compared with the total area of the Bay of Islands. And, in turn, the Bay of Islands is a very small portion of the local quota management areas.

Recreational fishing

In contrast to commercial fishing, a great deal of recreational fishing takes place all year round in the Bay of Islands. The distribution of vessels fishing over a full year, under various wind directions, gives insight into favoured fishing locations (although this does not take into account fully shore fishing or near-shore diving). Hotspots for fishing vessels included part of the proposed marine reserve area near Waewaetorea, although many vessels were working nearby Whale Rock and the outer reef edge to the northeast towards the 'middle ground'- areas not within the proposed reserve. It appears that less fishing activity would be adversely affected by the proposed Maunganui closure.



Distribution of recreational fishing activity (vessels per square kilometre), Dec 2004 to Nov 2005. http://www2.nabis.govt.nz/map.aspx?topic=Fish

Customary Fishing

Customary harvesting for tangi, hui, and so on takes place throughout the eastern Bay of Islands. There will be some impact on access areas historically fished within the proposal areas, but there remain many fishing areas not within the proposal areas. Our view is that the productivity benefits of the reserves will outweigh this small loss of access to sites previously fished.

Putting things into perspective

Yes, we all must give up some fishing opportunity if these no-take marine reserves are to be established. But together the two reserves amount to just 2,068 hectares out of the 30,253 hectares of water surface within the Bay of Islands, or 6.8%.

Those would be our gifts. Our gains are manifold: restored natural biodiversity and mauri, unprecedented economic opportunities, improved fishing near and beyond the edges of the reserves – and on it goes.

Other Impacts

Not only do we need to assess potential impacts on fishing activities in new marine reserve areas, but there are also other constraints. We need to be concerned about impacts on adjacent land activities, and with existing rights of navigation. Marine reserves should not unduly impact on existing recreational uses. Mooring, water activities and so on within the proposed reserve areas are not affected; it's just that we must not interfere with the sealife.

Photo: Dean Wright

Customary Management

Customary tools and legislation

The Fisheries Act 1996 and the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 include the obligation to make regulations to recognise and provide for customary food gathering by Maori and the special relationship between tangata whenua and those places which are of customary food gathering importance. The regulations cover non-commercial customary fishing; they do not provide for commercial fishing.

In addition to the issuing of customary take permits the regulations also cover the establishment of customary management tools amongst which are: mataitai reserves, and rahui (Sec 186, Fisheries Act temporary closures). Rohe Moana areas are where the Crown has formally recognised the traditional authority of hapu to carry out customary management under the Fisheries Act Kaimoana regulations and supercede taiapure management areas (see - http://www.fish.govt.nz/en-nz/Maori/Kaimoana/default.htm)

Rahui or temporary closures

A short-term closure, usually with a 1-2 year timeframe, with possibility of time extension. Useful for a specific area and fisheries management strategy that will benefit from short term closure, or can be used for rotational closures. Scallop beds, mussel rocks or shellfish beds are examples where this tool could work well.

Mataitai reserves

Distinct areas set aside for management of customary harvest and or restoration of traditional fishery resources, focussed on traditional use and management and knowledge systems. Kaitiaki can recommend bylaws to the Minister of Primary Industries for approval.

Bylaws must apply equally to all individuals. Reserves can only be applied for over traditional fishing grounds and must be areas of special significance to the Tangata Whenua. Generally there is no commercial fishing within the reserves.

Bylaws can cover the following matters:

- species that can be taken
- quantity of each species that can be taken
- size limits relating to each species to be taken
- the method by which each species can be taken
- area(s) in which the species can be taken
- any other matters the Tangata Kaitiaki/Tiaki considers necessary for the sustainable management of traditional fisheries resources.

Within the Bay of Islands there are the following customary management areas:

- Two gazetted Rohe Moana areas
- Te Puna maitaitai
- Maunganui Bay rahui
- Waikare taiapure

These are all positive measures for local management of the marine environment. Fish Forever has actively worked in support of Maunganui Bay rahui. They are also important in a cultural context and to the history of the Bay of Islands.

Rohe Moana areas

Two Bay of Islands hapu hold gazetted Rohe Moana areas - Patukeha and Ngati Kuta hapū of Te Rawhiti Marae in the Eastern Bay of Islands and Nga Hapū O Taiamai ki Te Marangi on the western side. Both Rohe Moana have neighbouring hapu listed as tangata moana.

Te Puna Mataitai

The Te Puna Maitaitai covers an area approx 20 sq km from the coast of the Purerua Penisular across to Black Rocks and Moturoa Island. It was authorised by the Minister for Primary Industries on the 29th August 2013.

Both Maori and non-Maori may carry out recreational fishing in the mataitai reserves. At the time of writing there are no bylaws established in the Te Puna Mataitai.

Rahui (temporary closure) - Maunganui Bay

Ngati Kuta and Patukeha hapu have maintained a traditional rahui over Mangaunui Bay since March 2009 and this was formalised in 2010.

The aim of a Rahui is to enable seriously depleted fish stocks to regenerate. Maunganui Bay has been closed to all fishing except for gathering of kina for the past five years. The rahui is due to be reviewed by the Minister by the 30th November 2014.

For more information visit www.rahui.org.nz

Why Marine Reserves?

BENEFITS OF A MARINE RESERVE

Future generations

This generation needs to ensure that examples of all the different habitat types in the sea remain pristine (or can return to a pristine state) for our children, and theirs, to experience – just like we do on land within national parks. The Marine Protected Areas policy of the New Zealand Biodiversity Strategy is the Government's commitment to this; Waewaetorea and Maunganui are our contribution.

Scientific study

Marine reserves are places where research can be conducted without interference from unnatural pressures such as fishing. The great variety of habitat types encompassed within the proposed Waewaetorea and Maunganui reserve areas means a wealth of research opportunities, addressing high-level questions of international interest. For example, questions around how scallop populations respond to fishing pressure can be addressed in Waewaetorea because the proposed closed area contains scallop populations surrounded by areas containing fished scallop populations.

To restore a degraded habitat and species takes at least a generation. That's 25 years.

Full protection of a habitat for a generation will restore most marine habitats that have been affected by overfishing. The restoration process is slow and complex. This is partly due to the long life cycles of key species like snapper and crayfish. It also takes years to restore the kina barrens to the lush kelp forests that would once have flourished. See how the kelp forests thrive within the reserves at Goat Island and Tawharanui - 25 years ago, these were kina barrens.

Marine reserves act as nursery areas

Fully protected areas provide safe havens for many species to breed and their juveniles to grow to maturity. This nursery supports the restoration of the reserve and surrounding areas, eventually leading to waters that are rich in sea life.

The "spill over effect" is good for fishing

As the reserve establishes, the increased numbers of fish and other marine species inside the reserve spill into the surrounding areas. In high quality habitats like the Eastern Bay of Islands this spill over could be substantial. It creates new opportunities for fishers and local harvest as areas surrounding the reserves that were previously 'fished out' become productive again. Ask Leigh locals where they fish!

Top quality marine habitats enjoyed by all

The proposed sites are top quality coastal marine habitats, both in New Zealand and globally. They are located in the heart of an iconic marine and cultural tourism area – the Bay of Islands - so they will enjoy immediate high profile as some of New Zealand's most valued marine reserves. The potential for the people of the Bay of Islands is very exciting – socially, environmentally and economically.

Centres of tourism and education

Marine reserves in areas where marine values are high, with beautiful clear waters, create significant local economic and educational opportunities. Similar areas in New Zealand are seeing multi-million dollar industries emerge around the immediate communities involved in servicing the people, diving, sightseeing, ecotourism, education and research.

Customary management

Marine reserves support all other local management strategies such as customary fishing and the use of customary tools like mataitai, rotational rahui or temporary closures, taiapure, and special fishing regulations.

Kaitiakitanga

Marine reserves will allow the kaitiaki to show and teach others what healthy marine environments look like and how they work

The reserves will provide opportunities for hapu leadership to share and teach the traditional cultural practices that have come from their tupuna. Status of the kaitiaki will be enhanced along with the ability of local hapu to carry out their traditional role and responsibility

Maturanga maori and the tikanga building a strong future.

Educational and research activities based on the marine reserves will support the restoration and future development of maturanga maori and the tikanga of the Eastern Bay of Islands hapu Ngati Kuta and Patukeha in ways that are not possible where heavy fishing is practiced.

Compliance

Marine reserves are supported by a specific Act and attract government financial support. There is a firm commitment to compliance, which can be managed locally. The marine reserves will enjoy local support and a high profile, which will aid compliance.

Photo: Dean Wright

Why Marine Reserves?

NATIONAL PARKS IN THE SEA

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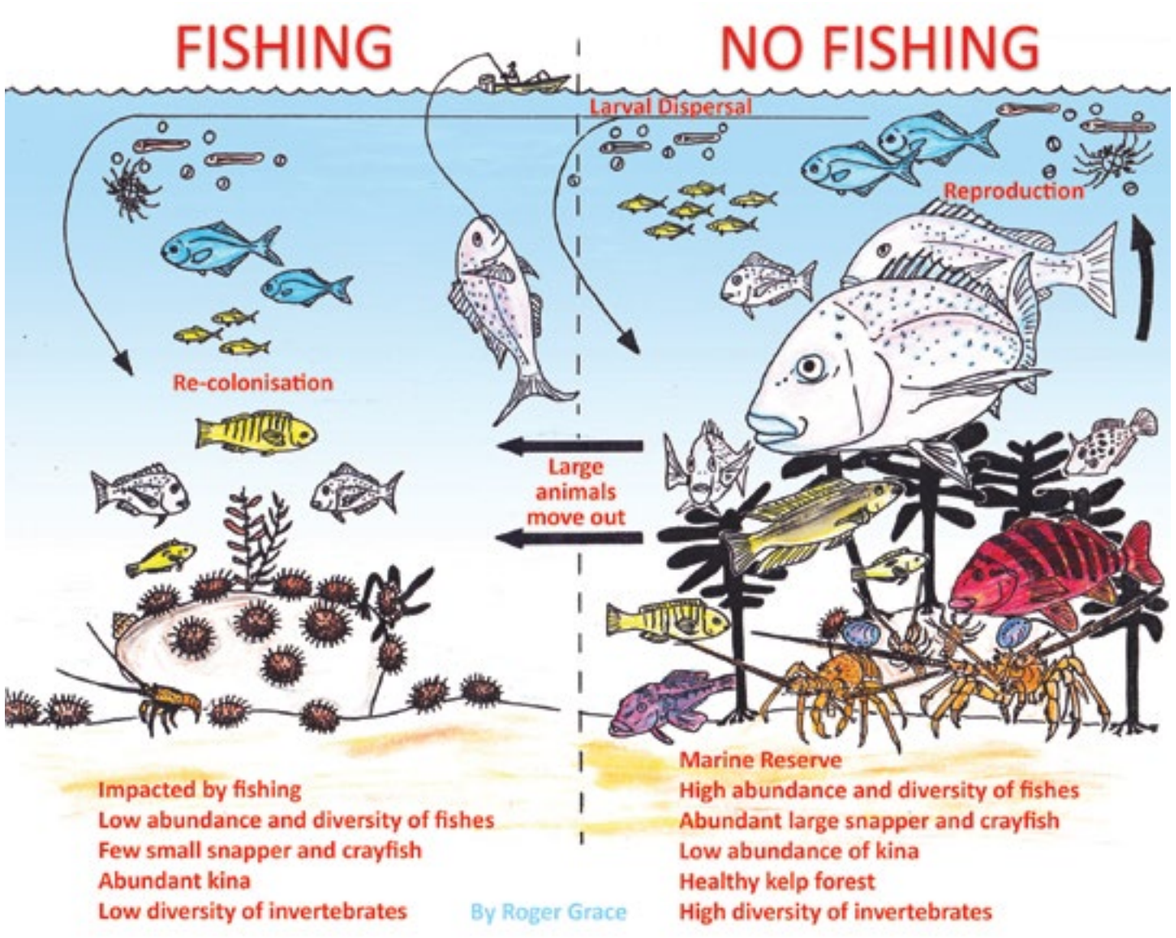
The only effective long term tool

Marine reserves are currently the only tool supported by legislation that offers effective and full long-term protection. In the case of the Eastern Bay of Islands, this will be subject to generational review.

And to paint a bigger picture showing how marine protection affects the full spectrum of marine life, this illustration gives an idea of what you can expect in a fully protected marine reserve, by comparison with unprotected water.



Counting Lobsters

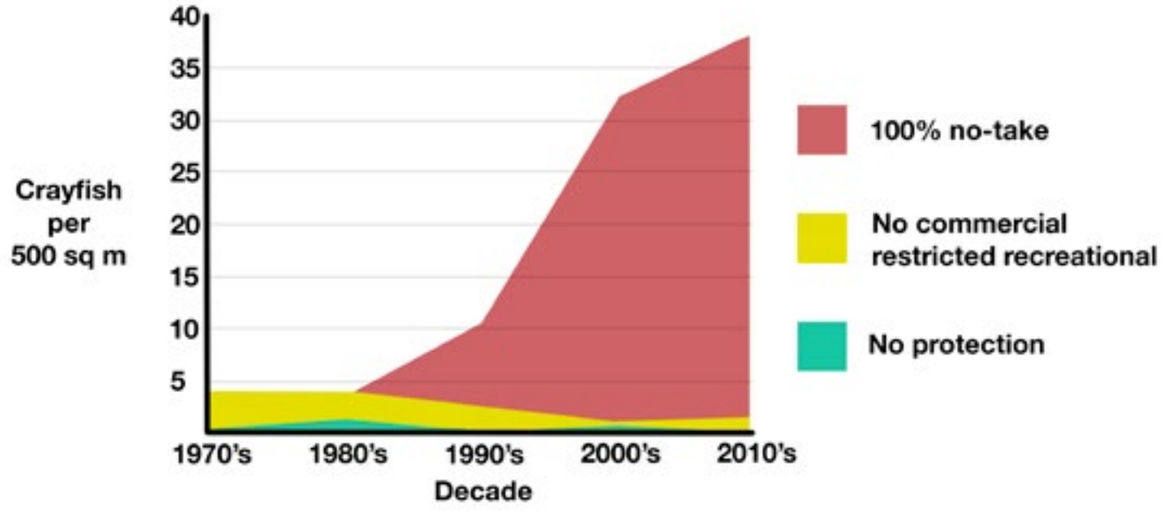
A published local study assessed how well marine protected areas performed in protecting exploited species:
"Long term trends in lobster populations in a partially protected vs no-take Marine Park"
Shears, Grace, Usmar, Kerr, Babcock 2006
Biological Conservation 132:222-231

Between 1977 and 2005 data was collected before and after the establishment of the:

- Tawharanui Marine Park - no-take reserve
- Mimiwhangata Marine Park - recreationally fished

Prior to the establishment of both parks, lobster densities were comparable.

Following the establishment of the two parks, lobster populations differed markedly.



Findings

- In the Tawharanui no-take marine park lobster were 11x more abundant and their biomass 25x higher than before protection.
- In the recreationally fished Mimiwhangata Marine Park there had been no significant change in lobster numbers.
- Furthermore, no difference was found in densities of legal sized lobster within the recreationally fished area and nearby fully fished areas.
- The long term patterns presented in the report provide an unequivocal local example of recovery of lobster populations in no-take marine protected areas.
- The patterns also indicate that where fishing pressure is high and constant, allowing recreational fishing in a partially protected area results in little benefit to populations of exploited species.

Marine Reserves

WHAT IS A MARINE RESERVE?

Marine reserves are the “national parks” of the sea, where underwater features and marine life enjoy complete protection.

Protecting the distinctive, the typical, the beautiful and the unique.

Their legal purpose is to protect areas of New Zealand that contain underwater scenery, natural features, or marine life, of such distinctive quality, or so typical, or beautiful, or unique, that their continued preservation is in the national interest.

Because much of our underwater environment has been altered by human activities, we need to protect parts of the sea that closely represent examples of what was originally there.

Marine life in its natural state

Within a marine reserve, marine life is left to recover and flourish in its natural state - for its own sake and for future generations to study and appreciate.

It provides a rich environment teeming with hundreds of species of sea life.

Safe breeding environment

A marine reserve provides a safe breeding environment that has the potential, in time, to increase the quantity and quality of kaimoana available outside the reserve.

A place to visit, learn and explore

As with national parks, people are encouraged to visit, explore and learn from marine reserves. Most Bay of Islands locals know that the area is not as bountiful now as it was in “the old days”.

For present and future generations

A marine reserve may help recovery of the marine environment and species, and protect marine life for the benefit of present and future generations.

DOES SIZE MATTER?

The “best” size for a marine reserve depends on what you are trying to protect or study.

For some species, a very small marine reserve may be enough to protect a local population. For species that travel, a very large marine reserve may be required to be effective. Some very mobile species may only take up temporary residence within a marine reserve. The positive benefits of the marine reserve may be increased if the period of the species’ life cycle spent in a reserve is a critical portion of its life (e.g. spawning).

Fishing the boundaries decreases fish numbers inside the reserve.

Research on the movement of snapper in and out of marine reserves has indicated that fishing for snapper just outside marine reserve boundaries effects numbers in the reserve.

Fishing causes species, such as snapper, to be generally less abundant closer to the edges of reserves, as compared to the centre of the reserve. For example research at Cape Rodney to Okakari Point (Leigh) shows reduced snapper numbers near the edges of the five kilometre-long reserve. A bigger reserve minimises this effect.

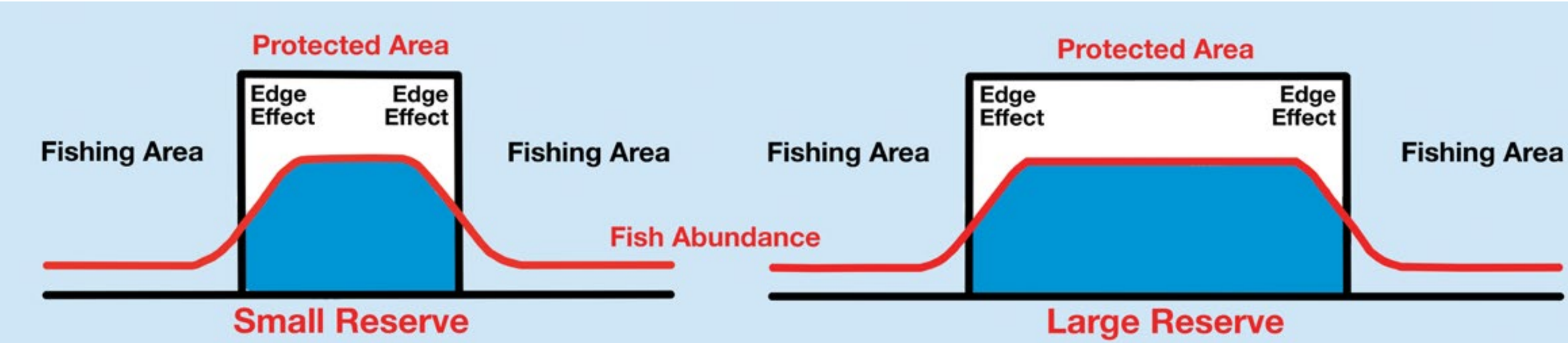
Larger reserves minimise the effect of fishing the boundaries.

Larger overall size will minimise effects from fishing at the edges of the reserve, and potentially add more diversity and more marine habitats to the network of marine protected areas in northeast New Zealand.

Larger marine reserves enable a wider range of habitats to be protected.

The Bay areas Waewaetorea and Maunganui are rich in habitat diversity.

The largest possible area under protection will allow for more habitats types to function fully and contribute to the overall coastal ecosystem.



Marine Reserves

BENEFITS INSIDE THE BOUNDARIES

When a no-take area is established, it assists recovery of the environment to a state more like its condition before it started to decline.

Fish nurseries

Recovering habitats can be thought of as nurseries (kohanga) in which the marine life grows bigger, more plentiful and varied than in surrounding fished areas. Bigger animals produce substantially more young. When more young are produced, they may drift or swim into surrounding areas.

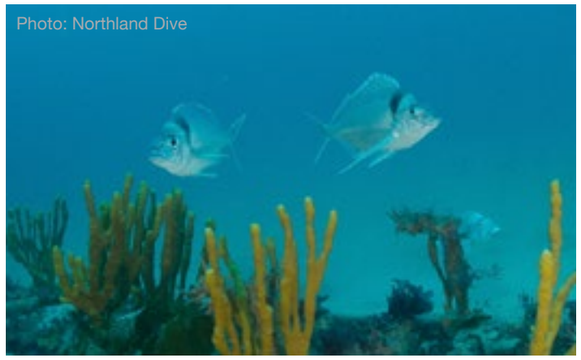


Photo: Northland Dive

More & larger animals, plants and invertebrates

Studies of more than 80 marine reserves all over the world have shown that the average weight of exploited species is more than four times greater in no-take areas than in unprotected areas nearby. The average number of animals in an area triples, the number of species is 70% higher, and the average body size of animals is 80% larger. These findings extend beyond fished species to other plants, invertebrates and fish. Most change studies of marine reserves established in New Zealand show a similar pattern of large increases in the average size and numbers of exploited species accumulating in the no-take area.

Shallow reef improvement

In the case of the two marine reserves proposed for the Bay of Islands the benefits we can expect to see will be most noticeable in the shallow reef areas but will vary greatly because there is so much habitat diversity.

More snapper, blue cod, butterfish silver drummer and kelp.

We would expect to see far more snapper of all sizes taking up seasonal residency, as well as some fish including large breeders becoming permanent residents. The diversity and populations of reef species will be restored to a more natural state. Blue cod will become common. Large schools of blue maomao will once again become a normal sight. Species like silver drummer and butterfish will become abundant with large fish present. We can expect the kina barrens to regenerate fully in time, greatly adding to the overall productivity of the shallow reefs.

Crayfish recovery

We will be astounded at the recovery of crayfish. These areas were once highly productive crayfish habitats containing great numbers of individuals, including those very large and old. Few people would now expect to see crayfish along a rocky shore in waist-deep water under ledges but that is normal for crayfish not subject heavy fishing pressure.

The return of hapuka?

There will also be inevitable surprises as we do not yet know everything about how marine reserves restore marine biodiversity and habitats. Will we have old big resident kingfish? Will we see a return of hapuka to the shallow reefs of the exposed coast where they once visited and gorged on crayfish? These are fascinating questions that can only be answered by putting no-take areas in place.

Photo: Dean Wright

Marine Reserves

BENEFITS OUTSIDE THE BOUNDARIES

Marine reserves frequently contain more sea life than surrounding waters, so some animals may move outside the no-take area to minimise competition for food and space.

This is called ‘spillover’. Spillover increases as time passes and the sea life becomes more crowded in protected areas. Once the no-take area is established different species spill over at varying rates, depending on how mobile they are.

Species that are attached to the sea floor, like mussels and other shellfish, do not migrate outside reserve boundaries but potentially export large numbers of larvae.

From an ecological and biodiversity perspective, one of the most significant benefits of marine reserves is the consistent source of larvae or reproduction coming from the reserve.

Our current marine reserves in coastal areas are very small in relation to surrounding fished areas, meaning that at this stage there is arguably little network effect from multiple reserves contributing spillover to a given area. However, with many of our existing marine reserves there is targeting of the boundary areas by both recreational and commercial fishers.

Fishing the boundaries

At Leigh, Tawharanui and Te Tapuwae o Rongokako (Gisborne) Marine Reserves, commercial crayfishers catch many lobsters near to the reserve boundaries.

Multiple reserves working together

If the current proposals are successfully implemented, we will have multiple marine reserves working together to produce ‘enhanced network effects’.

The various shallow reef areas around Urupukapuka Island, Oke Bay and the coast leading out to the Maunganui Bay reserve boundary will receive spillover from two directions and from a total no-take area that is significant in comparison to the length of coast stretching between the reserves.

Photo: Dean Wright

Marine Reserves

HOW QUICKLY CAN THEY WORK?

Recovery or restoration rates vary depending on how quickly sea life grows in the area, and the extent of degradation that has taken place.

Fast maturing animals

Some animals grow quickly, mature at an early age and produce large numbers of young in yearly or more fequent cycles. These species, such as scallops and mussels, may multiply rapidly after protection, sometimes increasing significantly in numbers within a year or two.

Slow growing species

Other species grow slowly and mature later in life. Numbers of hapuku, some reef species, and the large old individuals of species like kingfish and snapper may take many years or even decades to increase noticeably.

Decades of constant change ahead

What we experience in a marine reserve is several decades of constant change. Various species and individual populations grow and mature to a state that resembles what the natural state would have been before the impacts of human activities changed the underlying ecology. As these changes are happening to individual species, interactions between all the species are also changing.

In reserves, fish behave differently

Typically, in established no-take areas, fish behaviors are found to be noticeably different than in fished areas. Predator species like snapper often freely approach divers as they patrol their territories. In fished areas this behavior is virtually never seen; large snapper are typically extremely shy of divers and rarely seen. This is a benefit that could not have been appreciated before the first marine reserves were established. Now we are learning that there are many behaviors that are in fact natural that we simply didn't see before no-take areas began to relieve the pressures associated with fishing.

Significant changes in 3-5 years

In areas like those covered by the current proposals, we should expect to see the first significant changes in 3-5 years, with more fish present generally and probably the beginning of a buildup of crayfish. The changes will continue and accelerate over 10 and 20 years. Kelp forests and their associated marine life may take more than a decade to return to full productivity where they have been degraded.

A more natural state within 20 years

There is no way at present to predict when or even if the changes will level out at a steady state, such are the dynamic influences of marine environments, but we can confidently say that within 20 years the area will be well on its way to returning to a more natural state with a richer biodiversity.

A Fish Forever Ngati Kuta/Patukeha sponsored community snorkel lead by the Experiencing Marine Reserves program

Photo: Dean Wright

Marine Reserves

MANAGEMENT & THE PROCESS

Management of the Marine Reserves and Partnerships with Crown and community.

The marine reserve application is the first formal dialogue between the Crown and the proposers.

Fish Forever are proposing to make these recommendations to the Crown with this marine reserve application:

- A marine reserve management committee will be set up as a sub-committee of the Northland Conservation Board (under Sec 56 of the Conservation Act).The committee will be tasked with making recommendations on all aspects of management of the reserves, producing a management strategy, and integrating management of the reserve with the surrounding land reserves and customary management areas.
- The committee will research, advocate and promote the cultural and economic benefits on behalf of the hapu and community.
- Based on precedents negotiated in other regions between hapu and the Crown we are proposing to recommend, in recognition of the cultural traditions of the hapu, that there be a review provision established which guarantees that the reserves will be reviewed after 25 years.
-

How our reserve committee can help to shape the future of local marine conservation and management

The marine reserve application and the marine reserve management committee can make recommendations to the Crown on changes needed to the Marine Reserve Act.

The marine reserve management committee under current law (Marine Reserve Act) is limited to an advisory role, however via the land connection and the use of the Reserve Act, issues around concessions and use of the marine reserve can be addressed.

The Marine Reserve Process

The process is set out in the Marine Reserves Act 1971, and is illustrated by the diagram below. This proposal represents Step Four of this process and is an informal consultation document which creates the opportunity for all interested parties to comment before it is advanced to a formal application stage (Step Six). It is important now that every interested person or group has a chance to have their say. Proposed boundaries have been presented here for discussion, and will be reassessed at the conclusion of this first round of informal public consultation.

The Statutory Process

- Application is made to the Director General Department of Conservation (DG).
- Application must satisfy S.3(1) of the Marine Reserves Act 1971
- If application does not satisfy Reserves Act 1971 S.3(1): - application does not proceed.
- Public notification of intention to apply for an ‘Order-in-Council’ declaring the area a marine reserve, as well as to anyone owning an estate or interest in land adjoining the proposed reserve, any local authority with jurisdiction over the area, any local authority with control of the foreshore in the area, the Secretary of Transport and the Director General of Fisheries notified in writing by the applicant.

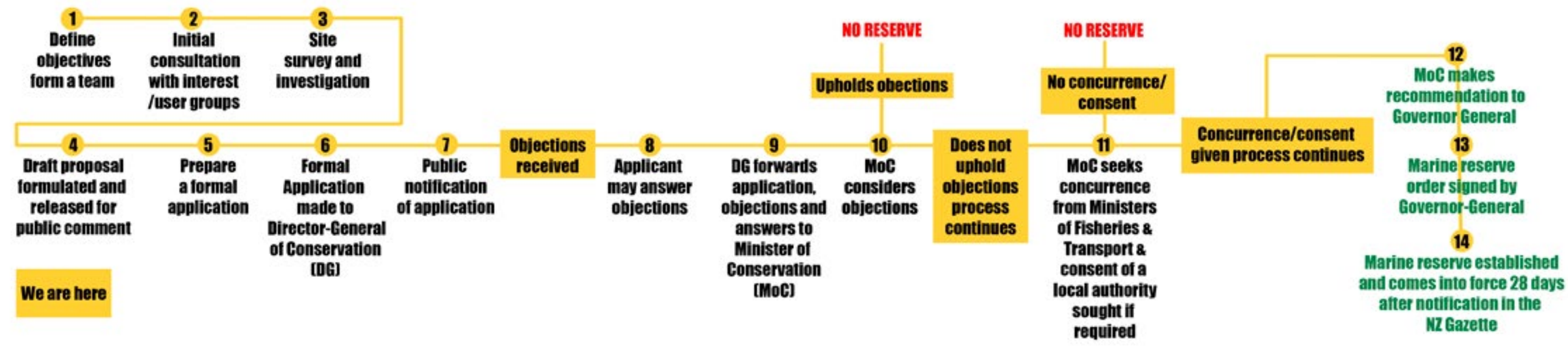
Two month consultation period. Includes objections and submissions in support.

- One month for the applicant to answer the objections.
- DG refers the application, objections and answers to objections to the Minister of Conservation.
- Before considering the application the Minister of Conservation considers the objections and the applicant’s answers to them (if supplied). Where the DG is the applicant the Minister of Conservation may call for an independent report.

Minister of Conservation considers application and whether it meets criteria of the Marine Reserves Act and whether any objections received are upheld. If the Minister determines that the Application does not meet the criteria of the Marine Reserve Act or that the any of the objections received are upheld, the Application is denied and the applicants are notified in writing with reasons detailed.

If the Minister of Conservation determines that the Application does meet the criteria of the Marine Reserves Act and that no objections received will be upheld, then the Minister of Conservation will seek concurrence from the Minister of Primary Industries and the Minister of Transport that the Application also complies with the Fisheries Act and the Transport Act respectively.

If concurrence is obtained the Minister of Conservation recommends the Governor-General make an ‘Order-in-Council’ to establish the marine reserve. ‘Order-in-Council’ is made and notified in the Gazette. Order declaring the marine reserve comes into force 28 days after notification.



Summary of Consultation Record

2012-March 2014
10 meetings with representatives from Patukeha and Ngati Kuta hapu, Te Rawhiti
November 2013
Discusions with Te Rawhiti local fishermen
November 2013
Waimate Show
August 2013
Reps from Ngati Kuta, Patukeha and FishForever visit Ngati Konohi hapu, Whangara, Gisborne. Ngati Konohi established the Te Tapuwae o Rongokako Marine Reserve.
July 2013
Meeting with Natasha Clark, Ministry Primary Industries
May – June 2013
John Booth – Commercial Fishermen Bay of Islands
May-June 2013
Discussions with four charter fishermen Bay of Islands
John Fox Hunting & Fishing Kerikeri
March 2013
Discussions with Te Rawhiti locals opposed to a marine reserve
March 2013
Meeting with Steve Lockwood, owner Motukiekie Island
Jan 2011 to present
Have your say chart on Fish Forever website approx 430 respondents
January 2013
Hosted “The Last Ocean” at the Centre Kerikeri 200+ public attended
March 2013
Guided community snorkel day – Waewaetorea Is
February 2013
Stand at the It Festival
January 2013
Hui Ngati Kuta/Patukeha
November 2012
Stand at the Waimate Show
June 2012
Hui Patukeha
January 2012
Eastern Bay of Islands Preservation Society AGM
November 2011
Hui Ngati Kuta
August 2012
BOIMP AGM
February 2012
Community Snorkel Day Waewaetorea
Sept 2011
Hui at Waitangi Marae
August 2011
Matt Watson
August 2011
Kelvin Davis (Labour party) and Tracy Dalton (Western community board).
July 2011
BOI Yacht Club AGM
July 2011
Ann Court Dept Mayor
June 2011
Kaikohe Rotary Club.
May 2011
Swordfish club
May 2011
Paihia Primary School
March 2011
Russell Primary School
March 2011
Business Paihia
March 2011
Eastern end Roberton Island residents
March 2011
Paihia Farmers Market
March 2011
Envirofest Kerikeri
March 2011
Opua School, years 5-8
February 2011
Paihia School. Sea Week - Social Studies Resource
Febr
uary 2011
Copthorne Hotel, Waitangi - Sea Week – Dr Roger Grace
February 2011
Sea Week - Social Studies Resource Sent to Schools in BOI
February 2011
BOI College Sea. Week - Social Studies Resource
February 2011
Cathy Cinema Kerikeri. Water Whisperers Audience
January 2011
Fish Forever is a guest feature of this weeks blog on www.good.net
January 2011
Individual discussions with 100+ on the water boaties Bay of Islands
January 2011
“Have your say” pamplet drop 1500 households in Russell, Opua, Paihia, Kerikeri and environs.
January 2011
The Eastern BOI Preservation Society AGM
November 2010
Northland Tourism Development Group
November 2010
Bay of Islands Rotary
November 2010
Waimate Show
November 2010
Northland Conservation Board
November 2010
Northland Tourism Development Group
October 2010
Whangarei – Daryl Sykes spokesman for the rock lobster industry
October 2010
Bay of Islands It Festival
October 2010
Launching our website www.fishforever.org.nz
8,244 unique visitors to April 2014
October 2010
National Marine and Freshwater Education Wananga Whananaki
September 2010
Facebook page - 553 followers
Oct 2010
Hosted End of the Line Screening – the centre Kerikeri 200+ people attended
July 2010
Bay of Islands Maritime Park AGM
2009
Consultation round by BOIMP MPA sub group

Please have your say

COMPLETE THE PUBLIC SUBMISSION FORM

For this proposal to succeed we need your support. Please take a few minutes to fill out this public submission form.

You can do this online at: www.fishforever.org.nz
or print, complete and post this page to
Fish Forever
C/- 15 Pukewhau Rd,
Opito Bay, RD1
Kerikeri 0294

Name _____

Email _____

I permanently reside in _____

Describe the activities you enjoy in the Bay of Islands

Fisher boat based, line or net	Yes/No	Scientific study	Yes/No
Fisher land based, line or net	Yes/No	Nature watching	Yes/No
Fisher Commercial	Yes/No	Bird watching	Yes/No
Seafood Gathering	Yes/No	Beach walking/tramping/hiking	Yes/No
Diver seafood gathering	Yes/No	Boating	Yes/No
Diver spearfishing	Yes/No	Sailing	Yes/No
Diver photography/watching	Yes/No	Recreation general	Yes/No
Snorkelling	Yes/No	Camping	Yes/No

Other (please specify)

Marine life and fish populations are declining in the Bay of Islands — strongly agree / agree / not sure /disagree /strongly disagree

Overfishing is a concern for the Bay of Islands — strongly agree / agree / not sure /disagree /strongly disagree

Fish Forever
MARINE SANCTUARY • BAY OF ISLANDS
Ngā ika āke, āke āke, Ipipiri

Do you support the proposal as presented? — yes / no

Do you approve of having marine reserves in the Bay of Islands? — strongly agree / agree / not sure /disagree /strongly disagree

Establishing a network of marine reserves in NZ is a good idea — strongly agree / agree / not sure /disagree /strongly disagree

How much of the Bay of Islands would you like to see as a marine reserve? — 0% / 1% / 2.5% / 5% / 7.5% / 10% / 15% / 20% /30% / 50%

Would you visit a marine reserve in the Bay of Islands once it was established? — yes/no

What estuary/sheltered water area would you like to see protected as a marine reserve in the Bay of Islands?

What area in the western Bay of Islands would you like to see protected as a marine reserve?

What modifications would you like to make to the proposal or proposed boundaries?

I would like to be placed on an email list to receive results of this consultation — yes/no

I would like to be placed on an email list to receive regular updates on work to restore and protect the Bay of Islands — yes/no

Please have your say

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