Return to previous file: NgatiKere.pdf

Question Two

WHAT ARE THE KEY SPECIES IMPORTANT TO NGATI KERE IN THE ROHE MOANA?

- Which species are important to us?
- Why are they important?
- What are they used for?
- How are they harvested?
- How have these species traditionally been managed?
- How are they managed now?
- Are they experiencing depletion or degradation?

Top: Seal at Te Paerahi
Middle: Koura from Paremahu
Bottom: Gathering kina (looking south to Paremahu)

IMPORTANCE

Asking us why our rohe moana and its key species are important to us is rather like asking why water is important to fish. Through these key species we are able to feed ourselves and provide kaimoana for visitors to our marae. While all hapu members may have a somewhat individual explanation of why going to the beach is important to them, it is acknowledged that the ocean is our provider of a vast range of benefits. It provides numerous species to us, both for eating and for using in our daily lives.

The ocean is a source of healthy food and sustenance for us throughout the year. The nutrition provided by a variety of seafood is important to us today as well. All varieties of kaimoana, kaiawa/from rivers and kairoto /from lakes are renowned for their vitamin and mineral content, e.g. omega oils, iron, potassium, magnesium, etc. The ability to supplement our diet without cost from our ocean pantry is crucial for health as well as for spiritual connectedness and at times, survival.

He waiata

'If you want to go tipi haere why don't you pop out to Porangahau?
It's 30 miles right off the beaten track but it's really worth it some how.
There's plenty of paua and kina there, the crayfish walk into your hands.
Kahawai there and karengo too, yes it's all there waiting for you.
No reira te manuhiri, that's what the locals will say to you.
Haere mai ki runga Porangahau o te Poho o Kahungunu'.

Top: Pouraka – traditional pirita and harakeke pot
Below: Cray pot being hand-set at Parimahu, January 2004

USE OF KEY SPECIES

Our use of these key species is in part for whanaungatanga and as a presentation to manuhiri/visitors at our marae, which reinforces our mana. The predominant use is for sustenance, as operational necessities in our lives, and in education.

These species were also traditionally used in an educational manner. Our elders made us aware of the role that these species play in our environment, our water systems and our riparian habitats. We were taught the importance of streamside vegetation to water quality and fish health. We were taught how one species is important to the life cycle of all species – how birds eat fish, how big fish follow the little fish upstream and affect the waters there, about how the interactions of paua, crayfish and groper form an ongoing cycle. We use these species to remember the stories that teach us how to understand and manage our rohe moana.

Apart from giving us food, these species and a variety of inland flora provide tools for weaving and carving, ornaments and components of our crafts, ropes, clothing, and the means to catch kai. We are reminded of these species through waiata/songs and the stories told by Kaumatua/elders and Rangatira on the paepae/threshold atea/front. Species are also depicted in the adornment of our wharenui/meeting house through carvings, kowhaiwhai/rafter patterns and tukutuku/woven flax panels.

HARVEST

Traditional harvest

Traditionally we harvested our main kaimoana species with nets, hand lines, lures and pots. The journals of James Cook record the *Endeavour* finding mile-long Maori nets within the Porangahau Bight. Hapu social structure dictated that only a certain limited number of people performed the catching of kaimoana; certain families tended to catch and provide specific species and distribute them to the rest of the hapu. The chiefly families had their wahi tapu/sacred places along the coast and people from the other classes would ask the chiefly families for permission to fish within that area with the expectation that they would hand over a portion of the catch in compensation.

There was very little complete immersion fishing. Crayfish could be hand-collected from knee-deep pools or pots could be placed in the water from the reef shelves. Mussels and kina could be collected from rocks, rock shelves and pools at low tide. Lines could be thrown from the beach or riverbank or nets could be set and retrieved from canoes. Pipi and cockles could be easily collected from tidal sandy beaches.

Creating cray pots from pirita/supplejack was time-consuming as was making kupenga/nets from harakeke/flax. These items tended to be works of art and they became taonga in the water so they were not left unattended while in use (unlike today's nets that can be left unattended in the water for days).

Gathering specifically for preserving was practised throughout the year at the exact moment when a particular species was at its best. Not all kai species are at their best in the same season.

Modern-day harvest

Current practices are easy and convenient by contrast. Motorised vehicles and boats have dramatically expanded the number of days that fishing activity can go on for. One can zoom along the beach even in poor weather or go out through the rougher weather that is frequent along this coastline. Cheap cray pots encourage people to place many of them and to leave them in for extended periods of time, during which they by-catch various species that provide ongoing bait for crays. These 'perpetual pots' and unattended monofilament nets waste kaimoana and continue the cycle of catch depletion.

Use of GPS is having a serious impact on traditional ocean fishing holes. Before the introduction of this technology, fishing these holes required local knowledge of the shoreline and an ability to read waves and local landmarks. Now 'boaties' from all over the East Coast who have heard of the coordinates can fish these areas in any season, any weather, at any time of the day or night.

The combination of tourism, population growth and present-day mechanisation is dramatically affecting the quantity of catch taken and reducing our sense of connection with the resource. Where it used to be fishing by manpower and skill, it is now fishing digitally and by diesel power. The personal sense of accomplishment derived by challenging Tangaroa through use of local knowledge is being lost. The introduction of refrigeration has meant unlimited preservation periods and quantities that can be frozen at one time.

Those hapu members who are serious fishermen or who have access to motorised boats can still get an adequate feed of kaimoana on a seasonal basis. They are in a privileged position compared to the rest of the hapu for whom the enjoyment of a kaimoana feed is becoming an increasing challenge.

DEPLETION

From Te Taiapure coastal archives, hapu elders have expressed concern about the serious decline in the quantity and species diversity of both shellfish and wet fish within our rohe moana. This has been especially dramatic over the last 50 years starting with the vacuum - like removal of fish from the Bay by Russian and Japanese fishing fleets in the late 1960s and early 1970s. Fish populations crashed and were kept in a depressed state by increasing commercial fishing out of Napier and Akitio. Recreational fishing, aided by faster boats and widespread use of sonar and GPS technologies, is now having a more pronounced effect on the decline of fish numbers. Charters have impacted on the depletion of fish and these stocks are being taken away, out of the rohe.

Our kaumatua remind us that we used to harvest koura/crayfish and paua from shallow reef pools. Bird Island in the Taurekaitai (Porangahau) River and the end of Pukepuketauhinu spit were home to thousands of birds. The river and the ocean no longer have the diversity or number of fish species to sustain those nesting populations so they are gone. Nets full of fish could be taken from within the breakers of Te Paerahi (Porangahau) Beach and abundant snapper caught on surf lines. Hapuka could be caught with a line from the river bridge and trout went far upstream into the Mangamarie Stream. Pipi and tuangi/cockles were abundant with buckets being easily filled within a few minutes... all this gone within the lifetime of people living here today.

Our interviews indicate that paddle crabs are getting much bigger and they were fewer in numbers when snapper were abundant. Snapper numbers appear to be coming back now as some people are reporting an occasional longline catch off the beach but the fish are small. One used to be able to see snapper tails churning the shallow water as they burrowed for pipi on the beach.

Kahawai are observed to have been declining further. We used to see the near and offshore waters seething with fish but this has not been observed since 1998.

DEGRADATION

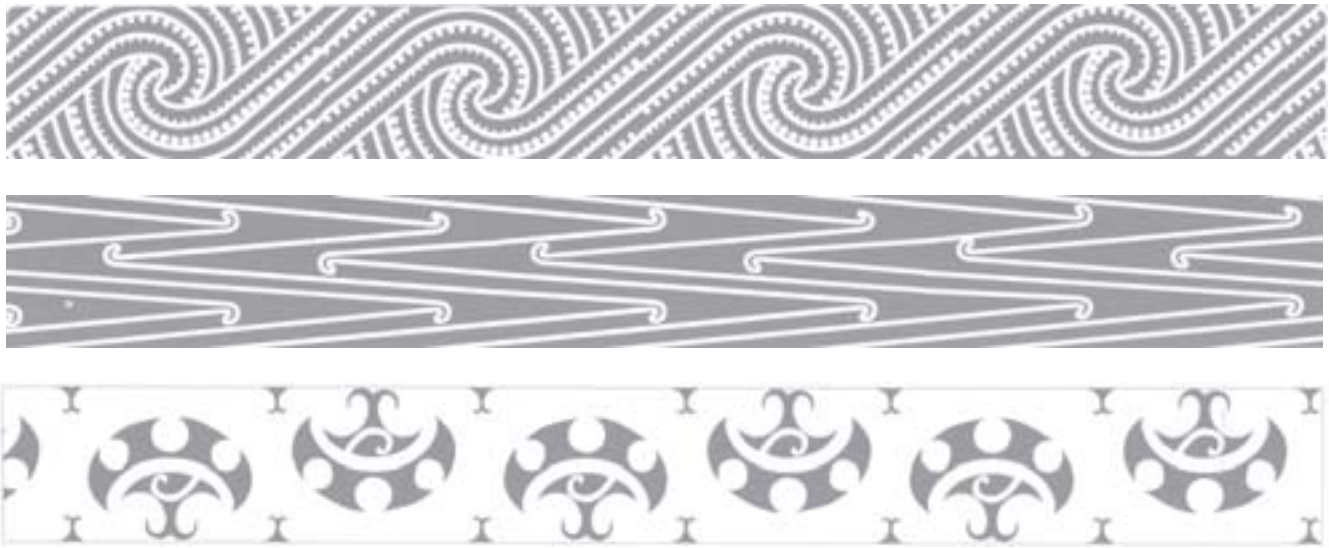
The health of the shellfish and wet fish has declined and abnormally shaped fish are being reported. Bone deformities noted in the late 1960s are still being recorded today. Shell species that are collected today are showing discolouring and brittleness.

A telling example involves a local weaver who uses traditional methods to prepare her harakeke. She has used the same kuku/mussel shell, her taonga, for scraping flax fibres for over 25 years. Since it wore out recently, she has been unable to get a shell that will not break immediately or within a few months. The strength of the shells has declined dramatically and it is a sad indicator of the health of the waters.

KEY SPECIES

The research team included all species most commonly talked about in the archive interviews. At a discussion with hapu trustees there was a strong request for the inclusion of karengo/seaweed and river species, because all kaimoana including the river species, are seen as an integral part of the whole connection between rohe moana – and rohe whenua . All species share a common value of importance. Not all species are available at the same time of year. Ngati Kere is renowned for the abundance of all species, each within their individual season.

The number beside each species represents how many of the 30 interviewees mentioned that species as important. They are listed in order from most mentioned to least mentioned. Also listed are other important species to Ngati Kere that affect and are affected by the ecological cycle of the rohe moana.



Kowhaiwhai representing te moana.

Koura (27 of 30)

Importance: Koura is a source of food and a basis for whanaungatanga for us. We define ourselves, our mauri and our mana, on the ability to provide kaimoana at the pa, and to share with other hapu. Having crayfish at gatherings is an integral part of the marae tikanga/custom of manaakitanga/ kindness.

Uses: as a food source and gift.

Harvest: Traditionally, Ngati Kere didn't dive a lot but used pouraka/drop pots to catch koura. Now there is commercial harvesting by quota and customary and recreational taking by snorkelling, diving and pots. Some people use hand pots or trap pots and most people use boats to fish areas offshore.

Traditional management: Rahui/periods of respect were sometimes imposed along the coast from pou to pou, those places which have become our landmarks. The taking of crayfish tended to be seasonal and the natural seasonal movement of the crayfish away from the coast tended to limit its harvest.

Present management: MFish sets a tonnage limit for commercial crayfishing in this area and it regulates recreational catch by sex and size of the cray. Customary take is the responsibility of the Tangata Kaitiaki.

Condition: Kaumatua interviews indicate a substantial decline in koura numbers since the 1950s. Populations seem to have stabilised since commercial quotas. Ease of harvest doesn't appear to have changed much in the last 10 years if it is harvested in season.

Koura

Paua (23 of 30)

Importance: As for crayfish, paua is a major source of marae mana for Ngati Kere. Our paua tend to be somewhat smaller than found in other regions, and an even smaller yellowish paua grows here.

Use: Paua is a source of food and a gift to others. The shell is used as tools for weaving, for lures, and as adornment in whakairo/carving. Use in jewellery and interior design has made paua shell more commercially significant in the last 10 years; it has become a 'Kiwi icon'. In the past, many have used the shell as an ash tray and many still do.

Harvest: Diving with a simple tool, maripi/ knife for prying. In the past the taking was seasonal and the paua were dried and stored in bird, seal, whale or fish fat/tahu. Paua preserved like this were a major form of gifting or exchange with inland hapu.

Traditional management: Management was accomplished by whanau restrictions on wahi tapu and by seasonal take. Kohanga/ nursery areas were left undisturbed.

Present management: Take is size-regulated by MFish. Locals also visually regulate on the basis of size and by not taking from kohanga areas. Te Angiangi Marine Reserve is a Department of Conservation Management System and acts as a large kohanga area for paua larvae spat. Te Taiapure and Tangata Kaitiaki groups could perform a managerial role with reseeding paua beds and restricting take. With both paua and crayfish, weather here tends to limit access to these species.

Condition: There has not been a dramatic decline in numbers or size recently but there has been a decline in paua health as seen by the thinning of the shells over the last 15 years.

Karengo (18 of 30)

Importance: Collecting karengo is a seasonal take for Ngati Kere.

Use: Cooked and dried seaweed can be eaten all year round. Karengo was, and still is a kai that is shared with other whanau/ family.

Harvest: It is gathered by hand during late winter and early spring.

Traditional management: Wahi tapu. Families had their own gathering rocks and identified spawning rocks.

Present management: No management system is in place: based on first-in-first-served. Japanese boats have been known to 'rake' seaweed from rocks for their dietary needs.

Condition: Karengo in its ripe season is often shorter now because of earlier and constant gathering.

Karengo harvest (above)
Drying karengo (right)

Pipi and Tuangi (both 16 of 30)

Importance: Once again these are a source of food and whanaungatanga. Abundance of pipi and tuangi/cockle are an expression of the mauri of the area. One type of pipi here is entirely different from others being smaller and pink. Collection as a recreational pastime is an important part of going to the beach here in Porangahau. 'When the sand covers our rock 'Ohinemuhu', we know that pipi will not be easily found.'

Use: As food and an accessible resource year round.

Harvest: Pipi are found on the beach side whereas tuangi remain in the estuary riverside.

Collection is done on a recreational and customary basis by hand gathering.

Traditional management: There was traditionally an abundance of pipi and tuangi so there didn't seem to be regulation or management systems necessary. Wide hapu access to the whole of the sandy beach was practised.

Present management: MFish regulates the size and amount of pipi and cockles taken through its recreational fisheries regulations.

Condition: Shellfish numbers appear to have declined. Some people maintain that they are still there but at deeper levels because the sand dunes have moved into the water to cover the pipi, making them less accessible. A change in shell colour is talked about and concern has been expressed about the negative effect of increased vehicle and horse traffic on pipi populations.

Patiki (15 of 30)

Importance: Patiki/flounder is a year-round food source to Ngati Kere. It is a symbol of abundance, and is often seen in the weaving pattern designs on the wharenui tukutuku panels, and in taniko weaving.

Use: Patiki are a food source and provide an important whanau recreational jaunt and experience of the estuary.

Harvest: Was traditionally done with nets but is now mostly done with spears. The prefered time to fish for patiki is at night. In the days of old our people used tikouka/ cabbage tree leaves tied up into bundles and lit, then came the tilly lamps. Nowadays we can buy these flash lights that are battery-operated, and can be used under water.

Traditional management: Patiki is not really seasonal but it is more abundant in warmer months when the water temperature in the river is higher. In winter there is more water flowing in the river and it is less pleasant to be out, so fewer flounder are taken.

Present management: MFish regulates size and numbers of flounder to be taken per person per day.

Condition: Flounder populations seem to have picked up since the year 2000, possibly due to the commercial voluntary netting ban presently practised in the bay.

Patiki
Photo: W. Farelly

PATIKI PATTERN

Lisa's experience recorded:

'The three of us would get sent out across the river (tee-shirt, shorts and sneakers if you remembered them). Each person on the river edges had a pole that the net was tied to (so it stretched across the river); you had to hold the top of the pole straight and taut, to keep the net up and the bottom of the pole had to be pushed forward into the silt, but always in front of you and kept in the ground. The person in the middle (usually the tallest) had to keep the net open and ensure the bottom rope dragged along the base of the river at the same time. Often the water would be up around your head as you struggled to keep the bottom rope down. You'd come in (carefully and very technically not to loose your catch or get yelled at), empty the net, then go back out again. We'd do this up to six times and even when we'd caught enough, I'm sure we got sent out just to give everyone a laugh. Exhausted, muddy and cold, we'd head back home, through the gates, bumpity bumping through the cows and swamps, totally satisfied with ourselves. We've got husbands now (some with 4x4 trucks) that we send out to laugh and yell at.

We also use these fancy underwater lamps (for night fishing), with a finely honed steel rod that spear the flounder. You just push the flounder up as you catch them, where they slide down onto an attached line and float behind you. Even our children (6 and 8 years) catch flounder easily this way and love the time with 'Koko' (their Grandad)'.

Taikura Rock

Kupe discovered Aotearoa while chasing Te Wheke a Muturangi (the pet octopus of Muturangi that had been robbing from the nets of Kupe). When Te Wheke turned on Kupe, he sent his son, Taikura, ashore to safety. On realising Te Wheke would catch Taikura, Kupe cast a spell to turn Taikura into a rock. This rock is prominent in Te Paerahi Bay.

Taikura Rock

Kuku (15 of 30)

Importance: A source of food to the Ngati Kere people. Gathering of kuku/musssel became a regular recreational pastime, creating whanaungatanga.

Use: As a source of food, mussels are eaten raw, blanched, marinated or cooked in many varying dishes. The shells are used as tools for weaving and in jewellery.

Harvest: Gathered at low tide off the rocks at Parimahu by hand. Young and old take part in this recreational pastime in the summer months when kuku are in good condition.

Traditional management: Pre 1950s, mussel were never taken from 'Taikura' rock. It is recognised as a kohanga. Other rocks were known to be wahi tapu.

Present management: Mfish regulations and quota system.

Condition: A definite depletion of mussels, poor quality and smaller in size. This could be due to an easterly wind pattern that has been noticeable for the last five years. There is also a lot of siltation coming down from the river. Taikura is in close proximity to the river mouth. Mussel shells are reported to be brittle.

Kina (15 of 30)

Importance: Kina/sea eggs are a source of food to the Ngati Kere people. Gathering of kina became a regular recreational pastime, creating whanaungatanga.

Use: As a source of food, kina are eaten raw out of the shell or after being soaked in water over night. Some people also cook them.

Harvest: Kina are gathered from the pools along the shelf platform at Parimahu using a maripi. Divers went out beyond the platform snorkling for kina.

Traditional management: Wahi tapu, kohanga pools.

Present management: Mfish regulations and quota system.

Condition: Kina have depleted in numbers and are smaller in size.

Kina

Hapuka and Snapper (12 and 15 of 30)

Importance: Both groper and snapper are preferred by the hapu because of their flavour and traditionally because of their large size and ability to feed more people. The challenge of catching a large hapuka was a rite of passage and we tended to target hapuka when going out in waka/canoe to fish.

Use: As a source of food for the hapu and for hinu/fat, used in preserving.

Harvest: Taking hapuka was traditionally done by dropline into specific known holes, 5- to 10-metre wide caverns, in a foul area (the join in the rock bottom) where there are resident fish. Onshore landmarks were used to find the holes and fishing was restricted to the time of day and the tide. GPS and depth sounders are used now to locate these holes.

Snapper are more of a shoal fish and netted from shore and boats along with long lines and drop lines. Now nets and long lines on kontiki and surf casting from the shore are practised.

Traditional management: Whanau guardianship of wahi tapu helped to maintain fish populations in the traditional holes.

Present management: MFish quotas and regulations limit the take of hapuka and snapper but removal of species is greater because of easier access and hapuka is now targeted by non-locals.

Condition: Massive vacuuming of this coast's wetfish stocks by Russian and Japanese fishing fleets in the late 1960s, and the advent of GPS have markedly reduced the populations of both snapper and hapuka. Hapuka seemed to have been better able to survive the commercial taking by foreign ships, whereas snapper stocks declined dramatically. Numbers point to a recovery over the last two years. Snapper are still much smaller than before and bone deformities were noted in the late 1960s. Snapper traditionally breed in the Ahuriri estuary, which was destroyed by the Napier earthquake. Large pre-earthquake snapper were still being hauled in 25 years ago but size and numbers have much decreased.

Groper
Photo: Gregory Sherley

Snapper
Photo: DOC

Whitebait (13 of 30)

Importance: Having and being able to give whitebait is important to us. Whitebaiting is a recreational pastime and challenge, and increasingly there is an informal monetary incentive.

Use: As a source of food and some income.

Harvest: Is accomplished by set net or scoop net. A local culture exists around whitebaiting, socialising and jetty territories.

Traditional management: Before the introduction of mesh netting, the old people only fished for inanga, the parent whitebait. They waited for inanga to come downstream to lay eggs in their complex cycle of reproduction. Management was by season, with the time of month and quarter of the moon being factors.

Present management: Regulations by MFish restrict net size, location of nets, season and taking by time of day.

Condition: The whitebait catch varies depending on the weather conditions for that year. The environment of the river can be affecting numbers as the habitat upstream is being degraded by removal of shady streamside vegetation. With the plants along the streams removed and cattle allowed direct access, the water is hotter, muddier and has more algae growing. Another potential decline factor is that more people are fishing today.

Whitebait
Photo: Paddy Ryan

Inanga (2 of 30)

Importance: When inanga come down the river they indicate a season that coincides with a spring tide and the phase of the new moon. This is an important learning practice for the younger fishermen of tomorrow.

Use: As a source of food in traditional days. The activity of parent whitebait indicates a change in season; it provides an educational demonstration of the ecological cycle.

Harvest: Seasonal gathering by setting woven nets that were not left unattended.

Traditional management: The old people only fished for inanga. Management was by season, time of month and quarter of the moon.

Present management: Regulations by MFish prohibit the catch of inanga outside of the whitebait catch season.

Condition: Inanga are not specifically caught today but the by-catch when whitebaiting indicates whether inanga are healthy.

Kahawai and Mullet herring (12 and 6 of 30)

Importance: Source of food; recreational fishing; summer fishing; sharing and trading.

Use: Ngati Kere people cooked it fresh. They also smoked, dried and preserved these species, making them a year-round food.

Harvest: Nets set in the rivers; recreational line fishing from the shore.

Traditional management: Not managed, as all these species are migratory.

Present management: Mfish regulations and quota system; they are still being netted by commercial boats as a by-catch.

Condition: There is noticeable depletion and fish are smaller in size. Mullet spawn in tidal waters up near the village. Huge shoals could be seen coming up the river. We don't see that nowadays.

Mullet
Photo: DOC

Kaeo (3 of 30)

Importance: Kaeo/sea apple is an old food of the Ngati Kere people and eaten mainly by the elderly. Very few people eat them today.

Use: Source of food, an acquired taste.

Harvest: Kaeo cling to the mussel rocks and are gathered by hand. They are also gathered off the beach after a rough sea.

Traditional management: No management system in place. This was not a popular kaimoana.

Present management: As above.

Condition: General depletion, no change in condition.

Butterfish and Spotty (2 and 4 of 30)

Importance: A recreational pastime. We all learnt how to fish for spotty and butter fish; their abundance was recognised around the reef. They are a guaranteed catch, therefore these fish are good for teaching the young ones how to fish.

Use: Source of food. Also used for fish bait.

Harvest: Handline fishing off Parimahu reef.

Traditional management: No specific management, however these species were left specifically for the young to learn and enjoy.

Present management: Butterfish is Mfish-regulated by the size and numbers caught per person per day. Spotty are not in the quota system.

Condition: There appear to be a lot of small fish and a lot of large fish of both species, with no size in between. Stock numbers are about the same for both species.

Moki

Importance: A source of food to the Ngati Kere people. It was always abundant.

Use: Eaten fresh, fried and boiled.

Harvest: Specialised fishermen set nets offshore and around reef platforms.

Traditional management: Moki was fished for during its season of best condition, the summer.

Present management: Mfish regulations control the size and numbers of fish caught per person per day.

Conditions: Reports by local fishermen suggest that stock size and numbers are in decline compared with what was being caught in the 1970s.

Moki
Photo: DOC

Gurnard

Importance: A food source to Ngati Kere.

Use: Eaten fresh, raw and fried.

Harvest: Before the advent of kontiki and kite longline presently set from the beach, longlines were set from open boats within Te Paerahi bay.

Traditional management: Seasonal take practised by specialised fishermen.

Present management: Mfish regulations control the size and numbers of fish caught per person per day.

Condition: Size and numbers are in decline – possibly affected by siltation sediment levels near gurnard habitat.

Gurnard
Photo: W. Farelly

Kingfish, Blue cod, Dogfish, Shark and Terakihi

Importance: All of these species are a source of food and whanaungatanga to the Ngati Kere people. It was a recreational pastime catching these fish. Kingfish was a recreational challenge caught with a trolling lure. Blue cod is closely associated with hapuka.

Use: All of these species were mainly eaten fresh. Dogfish and shark were dried so that they could be eaten all year round.

Harvest: All harvested using nets and longlines. These species can be caught all year round.

Traditional management: Wahi tapu, family fishing areas.

Present management: Mfish regulations control the size and numbers of fish caught per person per day.

Condition: Decrease in the size, but numbers remain the same.

Terakihi
Photo: Andrew Penniket

Toheroa and Tohemanga

Importance: The medium-sized bivalve shellfish tohemanga have always been abundant along the beaches throughout the Ngati Kere rohe moana. This is evident by the depth of shell deposits found within numerous middens throughout the rohe. The larger bivalve toheroa were transplanted at Te Paerahi (Porangahau) beach from Foxton beach, by our Kaumatua before the 1950s.

Use: Eaten raw, cooked, fried in batter or marinated. Traditionally, tohemanga were dried.

Harvest: Hand-gathered from within the high-water mark.

Traditional management: Before toheroa were transplanted, tohemanga were gathered all year round.

Present management: Toheroa are presently controlled by Mfish regulations. The number gathered per day is restricted to a limited season.

Condition: Not in great numbers, toheroa and tohemanga grow sparsely from Te Paerahi to Parimahu.

Tuna

Importance: Tuna/eel provided food during a season when other sources were not available.

Use: As a food source tuna can be cooked, dried or smoked for later use.

Harvest: Caught in a hinaki/set trap or pot; or gaffed and speared.

Traditional management: Specific tuna were caught from specific areas at a certain season. This is dictated by early autumn floods that coincide with the moon phase.

Present management: Controlled by Mfish regulations; size and daily take per person.

Condition: Depleted due to over-fishing by commercial fishermen. The remaining stock size of tuna are too small to consider taking!

'Tuna-rere' (the run of the tuna), is indicated by a pulsating star 'Rehua' (Antares), which is in the star constellation Scorpius.

Other: Other species that are important to Ngati Kere include: papaka/crab, kakahi/freshwater mussel, kuku, pupu/periwinkle, whetiko/mudflat shellfish and numerous cat's eye species were all gathered as a food source. Different species will be important to different people and there will be numerous other species that have not been mentioned in this report.

BIRDS

Moa bones and egg shells found in sand dunes around Ouepoto, have been listed with the NZ Archaeological Association. The Porangahau Estuary is classified as being a nationally significant feeding and wintering area for native and migratory waders. Bird Island and Pukepuketauhinu spit are famous for bird life, however with the depletion of fish diversity and numbers, the bird populations no longer exist.

Most birds were regarded as a source of kai, but they were also observed as indicators for coming weather and types of fish that were present in the moana. Birds' feathers were woven into korowai/cloaks as clothing, and used to adorn the taurapa/stern of waka, called 'Puhirere'; these act as wind current and movement directors. Bird bones were used as hooks and tools, particularly needles for Ta Moko/tattooing. Gull eggs were collected in season from selected areas in and around the estuary.

Bird species:

The following bird species were present within the rohe moana:

Titi/mutton bird, kereru/wood pigeon, toroa/albatross, black and red gulls (seagulls), Caspian tern, sandpiper, oyster catcher and gannets.

Kereru
Photo: Andrew Penniket

Gulls
Photo: Rod Morris

Oyster catcher
Photo: Rosalind Cole

Above: Kakaho and harakeke
Below: Pingao

The story of Pingao: Maori mythology tells how 'Pingao', grand daughter of 'Tangaroa' (god of the seas), was enticed by the wave of 'Kakaho' (Toitoi). She came up from the sea toward him but never made it. To this day the sand dunes separate them.

FLORA

The following species played an integral part in the wellbeing and lifestyle of the Ngati Kere people. One was no more or no less important than the other. Our people used these resources as part of the whole cycle to exist along their coastal habitat. Plants were not only important as food, tools and shelter, but provided medicinal value also. Some species also indicated the condition of the coming season.

Karaka tree – Provided shelter, the berries are eaten or preserved, and it is a seasonal indicator. When the berries turn red the mussel are at their best.

Ti kouka (cabbage tree) – Was used as a food source, for shelter, for weaving and as an indicator of extreme weather conditions.

Pirita (supplejack) – Grows in the bush and was shaped into traps and pouraka.

Karamu – Provided food and medicinal value.

Harakeke – Versatile fibre that grows in all conditions and is used for weaving in clothing, ropes and nets. Also has medicinal value. Acts as a siltation barrier and assists filtration.

Toitoi – Toitoi grows in the soil and assists with filtration. It was used in weaving and as insulation in whare/huts.

Pingao – Grows in the sand dunes and assists filtration, used for weaving.

Pae whenua (dock) – Has medicinal value.

Marrum grass – Prevents erosion.

Raupo/bulrush – Prevents erosion, used as string to dry out pipi, tuangi, pupu, kuku, etc.

Karaka tree
Photo: J.L Kendrick

Pirita
Photo: P. Morrison

Toitoi
Photo: Chris Rudge

Marrum grass
Photo: DOC

Question three

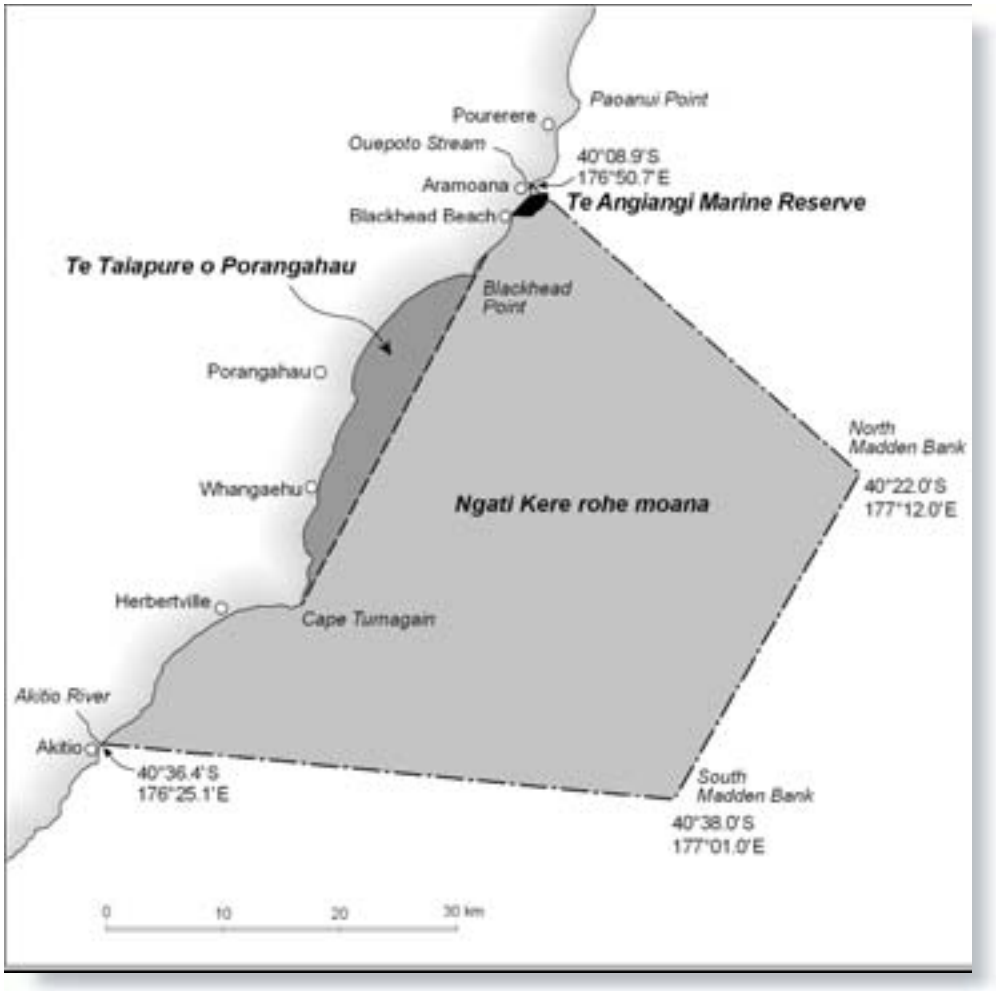
WHICH BLEND OF MARINE MANAGEMENT SYSTEMS ARE BEST FOR NGATI KERE?

- What management systems were traditionally used?
- What management systems are currently used?
- Are these management systems working?
- What management systems could Ngati Kere use in the future to meet their goals?

Whakatauki (Proverb, saying, verse):

'Ka pu te ruha, ka hao te rangatahi'

'When the old net is cast aside, the new net goes fishing'



Location map 3:
Ngati Kere Rohe Moana Boundaries

This section identifies traditional and modern management systems within the Ngati Kere rohe and discusses whether they contribute to meeting the objectives and goals of the Ngati Kere hapu in the rohe moana. It looks into traditional methods of management and identifies issues of concern with regard to the governance needed for integrating traditional management practices into the modern regulatory framework.

Top: Punga/stone anchor
Below: Hue/net floats (calabash)

TRADITIONAL MANAGEMENT

It is estimated that some 6000 Maori inhabited this coastline. Archaeological records show intense coastal life by the extreme number of pa, pits, middens and depths of shell deposits, throughout the rohe. Hapu elders governed an organised, transparent management structure for the well-being and survival of all the people. Whanau and fishermen were accountable to the greater hapu collective. The stewardship practised was a natural consequence derived from the responsibility of 'ownership' and survival for future generations.

Pre-European traditional management of the fishery was based on rahui and the existence of wahi tapu. Family rights were secondary to the hapu. Constant observation of the resource by specialised fishermen was undertaken. If the size, colouring, or amount of kaimoana from an area were observed to be decreasing or degrading, a proposal for a 'Rahui' (restriction of take of kai) would be put to the hapu. If approved, the kai or species within an area would be closed off to fishing and allowed to regenerate. Specific rocks, reefs and holes were recognised as spawning rocks and breeding grounds for karengo, crayfish and wet fish species; rahui were placed in Maori lore to these areas on the specific species in its season.

Because the coastline was assigned to chiefly families and encompassed important sources of kai and species regeneration, these areas were considered to be wahi tapu and managed by those families on behalf and for the benefit of the hapu. The general public wasn't allowed to go there. There was no need for them to go there, as fish would be provided to them from the specialised fishermen of the hapu. Fewer people fishing and a concentrated professional awareness of the state of the resource encouraged focused management.

NGATI KERE PRACTICES

The hapu perceptions of marine management outlined below are taken from interviews with hapu individuals, tikanga wananga, hui, the review of historical recordings, and Te Taiapure o Porangahau coastal archives. They are listed in order of most mentioned, as being most commonly practised or observed by Ngati Kere members.

- Fishing only within certain seasons or times (moon phases, night fishing)
- Families having their own grounds in which only they fished
- Taking only enough for a feed
- Walking access – no vehicles on the beach
- Using only your hands for shellfish harvest
- No eating of kai below the high-tide mark
- Taking only certain sizes, leaving 'kohanga' pools
- Leaving behind crayfish with eggs (females)
- Karakia/prayer was practised pre 1960s
- Women within pregnancy and cycles did not fish or swim.

Some specific examples of local direct involvement in management mentioned in the archives included:

- Planting oysters and toheroa
- Voluntary and informal Rangers
- There is also mention of cutting commercial pots adrift.

MODERN REGULATORY MANAGEMENT SYSTEMS

The Ngati Kere rohe moana boundaries are within the Central Hawke's Bay and Tararua District Councils of the Hawke's Bay and Manawatu Territorial Authorities. It encompasses Te Taiapure o Porangahau and Te AngiAngi Marine Reserve. Tangata Kaitiaki/caretakers were appointed in May 2003.

Current management takes place within the framework of Ministry of Fisheries legislation relating to fisheries management and customary fishing (Fisheries Act 1996 and Treaty of Waitangi Fisheries Claims Settlement Act 1992) which provided for the establishment of the Taiapure and the appointment of Tangata Kaitiaki; Department of Conservation Legislation (Marine Reserves Act 1972) which allowed the establishment of Te AngiAngi marine reserve; and the Resource Management Act Legislation which empowers Local and Regional Territorial Authorities (NZ Coastal Policy Statement, Hawke's Bay Coastal Plan) and controls non-fishing activities in the coastal marine area.

Hapu awareness of who is involved in coastal management is as follows (order of most common mentions from the archives and more recent interviews):

- Te Taiapure o Porangahau was most recognised within the rohe moana.
- Tangata Kaitiaki and Ngati Kere as guardians of the waters were equally regarded as having connections to management.
- NIWA and MFish were recognised as important science institutes that can record and monitor species and habitats in the rohe environment.
- Department of Conservation and the Ministry for the Environment were mentioned least, as were Local and Regional Councils.

The modern regulatory marine management systems and their relationship to Ngati Kere rohe moana are discussed below.

Continue to next file: NgatiKereb.pdf