

A WET LIBRARY FOR WHANGAREI 'Whangarei Terenga Paraoa – Whangarei Harbour Marine Reserve'

From 1990 to 2004, more than one thousand Kamo High School (KHS) Year 13 students worked on the Whangarei Harbour Marine Reserve Proposal. It is believed to be the first no-take marine reserve application by a school in the world.

Many of the hundreds of students that have been involved through KHS worked hard to raise money to support the application. Funds came from school mufti days, ACI Glass NZ Ltd, Northland Port Corporation and Marsden Point Oil Refinery. The students consulted with a large number of organisations, the public and Tangata Whenua and worked hard to gather information to improve their proposal, seeking expert advice from many people including Dr Bill Ballantine and Wade Doak.

Dr Bill Ballantine has been engaged in fieldwork teaching (and some active research) in the Whangarei Harbour since 1966. He welcomed the efforts of KHS to promote marine reserves in the harbour and strongly supported their application. Veteran diver and author Wade Doak first introduced KHS students to the 'wet library' concept that underpinned the project. At school, libraries and playing fields are seen as essential amenities that we must have. Likewise, every New Zealander and school should have access to a 'wet library', or marine reserve.

Motukaroro (Aubrey or Passage Island), near the mouth of the harbour, was one of the three marine reserves originally proposed by the seventh form geography class. The sheer abundance of life existing in the waters around the island makes it a very impressive zone: species at Motukaroro range from colourful anemones to sponges, bright blue maomao, unusual Spanish lobster and giant kingfish. The strong tidal influence allows a community of a variety of sessile filter-feeding species to develop, which in their turn attract organisms that are more mobile. Many seventh form geography students visit Motukaroro every year to be given the chance to see the underwater life. Even just standing in waist-deep water looking about with a mask on is an experience: on one occasion, a pipefish in the weed, and later a seahorse, were discovered by students. The massive orca has also been known to visit this island, reflecting the harbour's title "Whangarei Terenga Paraoa" (meeting place of the whales). Wade Doak has dived at Motukaroro and found the underwater world in some ways more densely populated than the Poor Knights Islands.

Dr Ballantine regards Motukaroro's southern shore as the best example of zonation he has seen on an accessible rocky shore anywhere in the world. He considers the case made by Kamo High School for marine reserve status as not only scientifically valid, but also important for educational and conservation reasons. Areas like Motukaroro are necessarily small - being confined to the mouths of harbours - and warrant a high level of protection. No such areas are at present represented in marine reserves in northern New Zealand (the Gut in Fiordland has a completely different fauna).

Of the two further areas proposed for reserve status, the first is a population of highly productive mangroves at Waikaraka. Local conservationist Des Ogle regards the mangroves at least as highly as the Kauri and Pohutukawa. Mangroves provide shelter and food to many marine organisms, and also play an important part in stabilising banks and trapping silt run off from land. The final area proposed was Motumatakohe (or Limestone Island), near Onerahi, which is a mudflat area and home to many endangered shore birds.

The Kamo High School geography project is an excellent example of environmental education. The work in part fulfilled the requirements of the geography syllabus and provided a unique learning experience, while also allowing the students to make a difference! Each year new senior students would learn about the need, benefits, and appropriateness of a marine reserve in the Whangarei Harbour, and the students had the ambition that other

schools could follow in their footsteps to establish further accessible marine reserves around the mainland coast.

On March 15 2002, a formal marine reserve application was made to the Director-General of Conservation. The main goals of the proposal were to preserve marine biodiversity, increase public awareness, and create a 'wet library' for both study and recreational enjoyment. Specific objectives included:

- To protect and maintain the marine ecosystem at the highest possible level, so marine life can flourish.
- To conserve, protect and enhance the greatest possible variety of marine life, ranging from the rare to the typical or representative.
- To establish a marine reserve of high recreational value.
- To form a link in a national network of marine reserves.
- To raise public awareness of our relationship to and responsibility for our coast and marine life.
- To establish suitable areas for scientific study.
- To establish marine reserve areas that represents the values of the inner harbour and outer harbour habitats.
- To raise the public's awareness and understanding of marine biodiversity conservation.
- To develop reserve areas which complement and area contiguous with land reserves already in place, thus creating a connected sequence of protection from land to marine habitats
- Protect a sequence of mangrove and mudflat habits and channel areas
- Protect a unique rocky reef habitat near the harbour entrance

On December 2nd 2004, the Minister of Conservation, Chris Carter, approved two of the original three areas proposed by KHS. The consultation process led the Minister to remove Motumatakohe from the proposal, as its inclusion drew strong opposition from fishers and iwi. Two out of three is still a major national and international achievement! The Minister of Fisheries approved the reserve in 2005. In total, the two reserved areas comprise 237 hectares, or 2.37% of the total area of Whangarei Harbour. The Department of Conservation formally opened the reserve on October 18th 2006. The marine reserve is finally in effect!

It was a long journey, but the process demonstrates the extent of work, determination, thoroughness and skill of the applicant - Kamo High School.

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