



Marlborough Marine Futures

Newsletter August 2015

First Forum - 9 August 2015

Big science and big issues featured in the first Marlborough Marine Futures Forum. Two further Forums in this format will be held this year.

Steve Urlich of the MDC presented key findings from the Rob Davidson's report that found decline in significant marine sites around the Sounds. Most at risk were near shore areas vulnerable to sedimentation and "biogenic" living structures such as horse mussel beds and "corals" vulnerable to being smashed by dredging and anchors. The report is available from Steve at the MDC.

Alistair Dunne and Ian Tuck of NIWA set out what is offered by the Atlantis model they have developed for Tasman and Golden Bays. Participants were very interested in the opportunities posed by such a comprehensive framework. The model links together the physical dynamics of the sea, biological processes and multi species interactions and the role of people in the environment. The base model has been built and is ready for real world data to be entered to calibrate it. Any useful extension to the east of Durville Island is three or more years away.

Forum participants worked in groups to identify the suite of issues facing the Marlborough marine environment. These will be analysed by the Trustees and a framework developed to establish how to get to grips with creating solutions. The practical issues of most concern to people were:

- The effects of land use on the sea, particularly those that accelerated the flow of sediment into marine environments;
- The role of forestry in creating land use impacts and how to maximise its value while limiting its impacts;
- How to stop and reverse the destruction on biological communities on the sea floor;
- How to get integrated multi-species fisheries management;
- Marine biosecurity risks;
- Managing population pressures on a finite resource.

People also raised issues around process and information. These included:

- How to get the "powers that be" into action while sustaining local leadership;
- How to get everyone aligned to a common vision;
- The need for reliable comprehensive information on what is going on in the environment and how various uses impact it;
- How to get to solutions that attend to all the needs.

The Trustees will develop ideas on how to proceed and bring them back to the next Forum on 27 September.





Significant Marine Sites Monitoring 2015

A review of significant marine sites in the Marlborough Sounds has shown significant decline over the past two decades.

In 2011, Marlborough District Council (MDC) and the Department of Conservation (DOC) collated information about marine sites which were known to be important ecologically and as habitat for threatened species. These sites were then assessed against a number of criteria for significance, and 129 sites considered significant were identified.

The report: "Ecologically Significant Marine Sites in Marlborough, New Zealand" is available from MDC's website:

<http://www.marlborough.govt.nz/Environment/Coastal/Coastal-Ecosystems/Significant-Marine-Sites.aspx>

Significant sites included areas important for seabirds, marine mammals, estuaries, reefs and underwater sites called biogenic habitats. Biogenic or "living" habitats are sites made by living organisms, such as tubeworm mounds, rhodolith beds, foliose red algae beds, bryozoans, horse mussels, kelp, and seagrass beds.

These form three dimensional structures arising from the seabed, and provide establishment sites for filter feeders and algae. They also have nooks and crannies for marine invertebrates and small fish to hide out. In turn, species like snapper and blue cod congregate around these sites to feed.

Biogenic habitats used to be widespread throughout the Marlborough Sounds. However, damage and destruction by dredging, bottom trawling, anchoring, and sedimentation has drastically reduced their area and consequently resulted in adverse effects to biodiversity and ecosystem processes.

MDC and DOC commissioned the lead author of the significant marine site report, marine biologist Rob Davidson, to begin monitoring of these sites in 2015.

The monitoring focused on Queen Charlotte, Tory Channel and Port Gore. The results were reported to MDC's Environment Committee on 23 July.

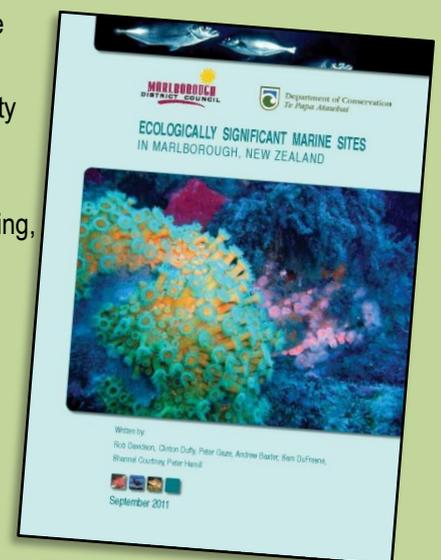
The monitoring report can be found at: <http://www.marlborough.govt.nz/Environment/Coastal/Coastal-Reports.aspx#Significant>

The report revealed that reef ecosystems were faring okay in Tory Channel. These hard surfaces are relatively resilient to human activities and have some protection from high current flows.

However, the results were quite different for biogenic habitats on soft substrata, reflecting their fragility to disturbance.

Damage to tubeworms mounds was recorded from recreational anchoring at Perano Shoal (a video can be found at the link above). Other sites contracted in area, or disappeared entirely, due to dredging, bottom trawling and sedimentation from forestry.

Council's Regional Planning and Development Committee is currently considering the report in the review of Marlborough's Resource Management Plan framework.



Fisheries matters in the Marlborough Sounds

There is always a lot of debate around matters relating to fisheries, not only in the Marlborough Sounds but the whole of New Zealand. In Marlborough right now there are several live Issues and many on the horizon for us to consider.



Operational review of the Fisheries Management System

In his speech at the recent Seafood New Zealand 2015 conference, Minister of Primary Industries Nathan Guy flagged that there would be a review of the fisheries management system and Fisheries Act. Making the announcement, Mr Guy noted the long-term aim of the reviews is to deliver greater net value to all sectors – commercial, recreational and customary, while enhancing the sustainability of our fisheries.

He made it clear that this programme of work is about refreshing and improving our fisheries management system, not replacing it. Mr Guy was of the opinion that the operational review will help strengthen public confidence and social license for fishing, and foster community support by providing opportunities for involvement in local area management; an interesting development and it will be interesting to see how this will occur.

Mr Guy pointed out that this is a high level review and, as such, it won't be getting into the detail of things like bag limits or quotas. The current sustainability rounds, and other work programmes by MPI, will continue. Nor is the review intended to undermine existing rights and interests of commercial, customary and recreational fishers, Treaty settlements or core elements of the QMS.

As the first step in this process, over the next few weeks officials from the Ministry for Primary Industries will be contacting stakeholder organisations to seek your views on strengths and weaknesses of the current system, and opportunities and priorities for change.

Marine Protected Areas Bill

We are all keenly awaiting the release to the public of the first discussion document regards the introduction of the new Marine Protected Areas Bill. Based on information received to date the mooted changes will have some effects on all fishing interests within the Sounds. The new Bill would seek to establish in legislation tools to enable more efficient and effective introduction of four keys types of "protection", namely; No-take Marine Reserves, Species Specific Sanctuaries, Seabed (or Benthic) Reserves and Recreational Fishing Parks.

Review of Blue Cod Regulations for the Marlborough Sounds and Challenger East

Following two rounds of consultation with the public, including the formal statutory consultation process, the Blue Cod Management Group in association with MPI has analysed and considered the submissions received. The final advice paper to the Minister of Primary Industries, based on those considerations, will be presented to the Minister during the week ending 28th August 2015. From there the Minister will consider this advice, and may take advice of his own, then make his decision regards the changes, if any, to existing blue cod fishing regulations. 230 submissions were received during the statutory consultation.

Convergences

There are many issues and activities out there today (and on the horizon) associated with the health of the Marlborough marine environment and its' management. In addition to those mentioned above there is also the Davidson report to the MDC which highlighted – amongst other things – issues regards declining habitats, MDC research into the Sounds' hydrodynamics & benthic core sampling, research into the loss of *Macrocystis*, next steps highlighted by the blue cod management group to improve the health of the fishery and important habitats, the impending release of the MDC Regional Policy Statement and Resource Management Plan, National Environment and/or Policy Statements for forestry and aquaculture, and the Sustainable Seas Science Challenge.

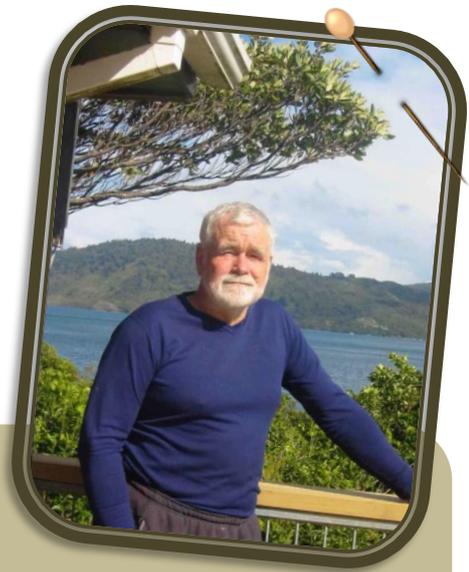
If you couple these initiatives with those above you can see that there are some significant overlaps that need to be carefully assessed and managed to ensure the best outcome for the marine environment and its' myriad of users. Really, never has the need for a truly integrated approach been greater!

Dates to keep free for next Forums:

27 September
15 November



Spotlight on John Hellstrom



I hail from the Skargord, a beautiful archipelago in the Baltic, and have spent most of my life on or near the sea. I grew up sailing and fishing on the Hauraki Gulf until I was lured to the Sounds by my wife Judy in the 1970s. We have lived at Endeavour Inlet for nearly 20 years.

I'm a veterinary epidemiologist and I've spent most of my life trying to work out how things interact to affect animal health, so it was a logical progression to become one of the founders of our modern approach to biosecurity – the protection of our living environment.

Over the 60 years our families have holidayed at, or lived in, the Sounds we've seen huge changes – both good and bad. In the inlet, for example, as the land has recovered from forest clearance, fires and subsistence farming the marine environment has sadly declined. Sedimentation, over-fishing and lack of care have seen the complete loss of kelp beds and decline in scallops and finfish diversity. I'm an optimist and believe we can reverse some of this decline, but I believe this must be achieved through local community initiatives not by imposed solutions from outside.

I'm a Trustee of the Marlborough Sounds Restoration Trust, which has been able to channel community support to achieve a fantastic recovery of our landscapes from wilding pine invasion – an example of how communities can achieve the impossible. I'm also a member of Te Korowai an inspiring example of how diverse interests have been brought together to achieve gains for the whole community of Kaikoura.

I want our mokopuna to also be custodians of a diverse, inspiring and productive Sounds environment, which provides for the recreational and economic interests of our community and values its historical and cultural significance, just like the Skargord does.

Atlantis model



Atlantis, once the fabled lost continent, now a highly sophisticated computer modelling system for marine environments invented by CSIRO in Australia. Grappling with complex environments where everything affects everything else makes it hard to predict what will happen when we intervene. Modelling is one way of helping us with that. The Atlantis model is structured for marine systems combining things like sea temperatures and tides with the role of marine species and even us as elements in the system.

NIWA has adopted this approach and is building a model for Golden and Tasman Bays. They say it will help us to know what questions to ask and to understand the answers. With the Sustainable Seas Science Challenge bringing new research power to our region, one question is whether some of these resources should be used to extend the Atlantis model to Marlborough. The researchers warn that any useful applications would be three years away. The Board of the Science Challenge says it wants to hear your voices in setting its research priorities. This will mean we will all have to get to grips with the value of different approaches in grappling with the issues. Are models or real world data of more value to us at this stage? What questions can research help us with?

Alistair Dunne who is leading the Atlantis work as well as the strand of the Science Challenge that deals with “managed seas” has offered to come back to our third Forum in November this year to keep us up to date.

You can find information on Atlantis at <http://www.csiro.au/seaview/seap/background.html>.