



Title: 'Riders on the storm'

Description: An impressionistic version of a fishing boat returning

Photographer's name: Noelle Bennett

Where and when: Queen Charlotte Sound, Marlborough, December 2020.

Sustainability: A staggering 96% of New Zealand's territory is under water. As an island nation, the sea area under New Zealand's jurisdiction is about 15 times that of our land area – yet the sustainability of the sea ecosystems gets relatively little public attention. Seafood production is a major economic sector in New Zealand. In 2015, commercial fishing contributed \$544 million and employment for 13,416 people. Customary management of fisheries and nearshore ecosystems is extremely important for Māori communities along our coasts. Over 600,000 New Zealanders and 100,000 tourists go salt water fishing in New Zealand every year and this recreational fishing is estimated to contribute around 1 billion dollars to the economy every year.

Coastal ecosystems and deep-water habitats are also increasingly recognised for their biodiversity and conservation value. The iconic forests, lakes and rivers and alpine grasslands have dominated our earlier national conservation awareness, but now marine ecosystem health is coming into public focus. Ecological economists recognise their 'intrinsic value' or 'existence value' alongside their use values for fishing, tourism and recreation. A recent study using 'choice modelling' (a type of virtual auction of comparative benefits) with over 1000 randomly chosen participants found that a large majority of the public prioritised restoring biodiversity above increasing commercial, customary or recreational fishing rewards. The model estimated that New Zealanders were willing to increase their taxes enough to collect \$360 million extra per year in order to restore marine biodiversity alone – this is about half what Doc gets from taxpayers each year, nearly all of which is spent on managing terrestrial ecosystems. Marine reserves are nearly all small and collectively protect only 7% of our territorial seas, and most of this is within two large offshore reserves. Creation of these marine reserves and mātaihai and taiāpure (customary fishery areas) have precipitated intense debate and opposition from commercial and recreational fishers.

Lack of reliable monitoring information presents a major challenge to finding the balance between societal pressures and expectations whilst attempting to maintain healthy ecosystems that generate food and income, provides recreational and lifestyle benefits and conserving biodiversity. What happens under the water is a bit of a mystery to

most of us, unless we are experienced and well-equipped divers. Monitoring is very expensive, dangerous, and complex to interpret. A fisheries scientist, Professor John Shepherd, has often been quoted as saying 'Counting fish is like counting trees – except they are invisible and they keep moving'. The majority of research is directed at understanding sustainability of a few and most important commercial fisheries species. Advocates of New Zealand's Quota Management System claim it to be world leading and successful, opponents claim that it is largely failing to adequately protect fishing stocks, let alone marine ecosystem health in general

My family loves fishing and we make sure we fish responsibly. It's harder to catch fish here now compared to the start of the 15 years that we have been fishing around the Marlborough Sounds. The fish we do get seem to be smaller and are definitely in less good condition. So we add our own call to increasing voices for thorough investigation of threats and ways to better protect our seas and coastal ecosystems. Sustainability relies on consensus, a social contract, and giving all interests a hearing and some balanced measure of influence on the future of marine ecosystems that belong to us all.

Photographer's notes: Often when I'm taking a photograph I don't want it to simply be a pictorial representation of what I see. What I really want is for it to convey a feeling or impression of the scene and that is what I wanted to do here. A perfect storm is brewing if we continue to ignore what's going on under water and allow commercial and recreational interests to have the vast majority of resources and the decision-making power to decide the future of the marine ecosystems.

Photo specs: This image is a composite that was produced from two images, one of which used intentional camera movement (ICM) as the technique to produce it in order to achieve the impressionistic feeling of the image. Technical specs: The main image (the sea and sky) was taken using a Panasonic DC-G9 camera and a Panasonic Lumix G-Vario 12-35mm f/2.8 lens. Exposure details - 1/25 sec at f18 with an ISO of 100 and a focal length of 26mm (52mm full frame equivalent).

Digital specs: 6521 x 3953 pixels (25.78MP) @ 300dpi

Key words: ocean, sea, coast, marine, fishing, Quota Management System, fishing boat, boat, Marine Reserves, Taiāpure, Mātaitai sunset, clouds, sky, colour, ICM, impressionistic, Noelle Bennett, Ecosystems Photography, sustainability.

Price: \$300 (incl. GST) for use of the digital image. Visit www.ecosystemsphotography/sales for details & to order, or to get a quote if you would like a high-quality print.

Donation: The price includes a \$100 donation to a sustainability organisation or project of your choice, or otherwise to Experiencing Marine Reserves <https://www.emr.org.nz/>

We recommend that the donation goes to *Experiencing Marine Reserves* because of their work to support children and locals to dive in their nearby marine ecosystems. They are an NGO that relies on donations to provide free and safe diving expeditions and to learn about marine conservation.

Image ref: NB#023 (please use this reference in all orders and correspondence).

Noelle Bennett

26 December 2021