

Seeding the Seabed

Story and pictures by Dave Hansford

WHEN I WAS A KID, the back pages of comics were full of advertisements for “sea monkeys”. Just add the contents of a sachet to a tank of water and barely minutes later, you have your very own underwater menagerie.

The idea that living creatures could emerge out of nothingness (“Instant Life” goes the registered trademark) was nothing short of magic. Years later, I came to know sea monkeys by a different name – brine shrimps – and how they can survive as desiccated embryos for months before blossoming into adulthood with the simple addition of water.

But there is magic still to be found in sea water, and in a hulk of a different kind. In November 2005, the warship HMNZS Wellington, or F69, holed by a series of carefully placed explosive charges, sank to the seabed off Island Bay. It was a textbook scuttling; I dived on her just hours later to find her sitting nearly dead level, still trim.

Within days, divers reported schools of small fish sheltering in her cavernous hull. After just a few weeks, her grey warpaint was mottled with the seedlings of an undersea garden.

That’s because sea water, like a packet of sea monkeys, is brimming with potential life – all it needs is a suitable foothold. Every millilitre carries hundreds of tiny, transparent larvae – baby lobsters, crabs, starfish, anemones and yes, sea monkeys – all seeking a place to settle down.

Nature, they say, abhors a vacuum, so the sudden appearance of a 113-metre-long frigate starts a seabed real estate boom. Many marine creatures make little distinction between a rocky reef and a steel stern; any square centimetre of available habitat is hotly contested, and so it’s been on F69.

Victoria University’s Joanne Long started diving the wreck soon after it sank, and has been documenting its metamorphosis from ship to ecosystem.

“In places, it’s difficult to tell that you’re actually on a wreck,” she says. “To me, it looks precisely like what you would expect to get on a reef closer to shore.”

By which she means that the vessel is now almost totally cloaked in macrocystus and ecklonia seaweeds.

“These species are well adapted as pioneers; that’s what they do,” she says.

Ecklonia is found elsewhere around Wellington coasts, but Joanne was surprised to find it growing at depths

of 20 metres on F69. “I’ve only ever seen it growing in more sheltered areas.”

A surprise, because in March last year, F69 was struck by storm swells of nearly 13 metres; a one-in-a-100-year maelstrom. The ship first broke in two – parting at the bow between the gun turret and the bridge, a well-known weak point of Leander-class frigates – then three as the storm cleaved the mid and stern sections.

This completely altered the habitat; sunlit shallows became dark depths as the vessel corkscrewed and tilted; the waves clearfelled the young kelp forests.

But life adapted anew. The inner reaches of the wreck are now caves, the walls festooned with hydroids. Sea tulips have appeared. Starfish perambulate over beds of coralline algae, and a closer look reveals perfectly mottled triplefins, perfectly camouflaged among the reds and purples of encrusting plants. Sea hares – giant shell-less marine molluscs – have already laid their spiral swirls of egg masses among the growth.

Their more open-water relatives, oblique-swimming triplefins, sweep in flashy yellow schools across what was once home to a helicopter, along with every kid’s fishing favourite; the ubiquitous spotty. Blue cod and goatfish patrol the bottom, while terakihi, butterfish – even the odd barracuda – circle the bridge and superstructure.

Joanne says the wreck still presents some valuable research opportunities. It provides a way to better understand how life takes hold beneath the sea, although the chance to begin with a clean slate – or ship – has been missed.

“You could still clear certain areas of it and record what comes back. It would be influenced a little bit by the things that were already growing there, but it would be a very interesting experiment nevertheless.”

Joanne also wants to compare the ecology of this new artificial reef with the inshore habitat and intertidal zone nearer shore.

Just like a forest on land, HMNZS Wellington will suffer more upheavals yet, and it will recover and revitalise time and again. It will alter over the years, responding to changes in water temperature, current flows and clarity. Its weird, wonderful tenants will go on jostling for space in the tenement block that is a coastal reef; new immigrants will arrive and fight for a foothold.

The warship will have become a living reef.

Jewel anemones



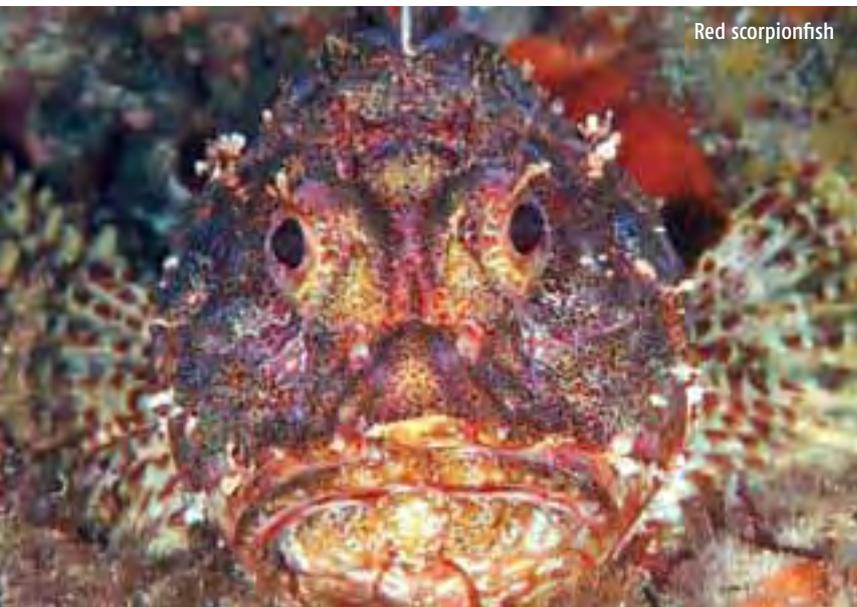
Jewel anemones



Variable triplefin



Diver on F69.
Photo: Joanne Long



Red scorpionfish



Kelp