

## FastFind 220 PLB

Used by professional search & rescue services worldwide

Convenient small size

**Built-in GPS** 

Floats with pouch

6 year battery life

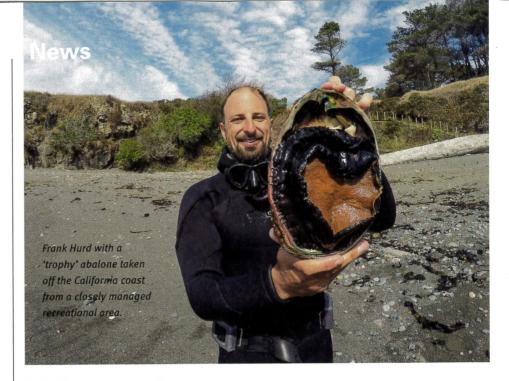
Economical battery replacement

Auckland service centre

McMurdo is building the complete ground to satellite infrastructure for Australia and New Zealand

McMurdo's technology will result in survivors being





## When size matters

As a follow-up to the New Zealand Initiative's recently released report, What's the Catch?, Randall Bess is travelling overseas to research some of the different ways recreational fisheries are managed.

In his overseas travels, he first visited the remote northern California coastline. One of the topics of research was the recreational harvest of abalone. The California coastline has seven species of abalone, and the most common and largest is the red abalone (Haliotis rufescens).

## Randall reports...

Since 1997 the red abalone fishery north of San Francisco Bay has been closed to commercial fishing. This makes the fishery the world's largest recreational-only abalone fishery. Around 30,000 people harvest 250,000 red abalone each year. It is estimated that about the same amount is taken illegally.

Red abalone is prized for its size, commonly reaching 152mm (six inches) to 203mm (eight inches) or more. The minimum legal size is 178mm (seven inches). No more than three red abalone can be possessed at any one time. There is also a seasonal limit of nine abalone harvested south of the Sonoma-Mendocino County line, and a combined limit of 18 from San Francisco Bay to the Oregon border.

Most divers go their entire lifetimes without finding a red abalone around 254mm (10 inches) or 279mm (11 inches) in length. The world's record is 313mm (12.33 inches). Red abalone measuring 250mm or more are considered a trophy.

Here is a picture of Frank Hurd from The Nature Conservancy with his first red abalone over 10 inches, which he took from a commonly accessed site in Sonoma County. I was there, so can confirm the measurement!

The Nature Conservancy has been working with the California Department of Fish and Wildlife, scientists, and a group of dedicated local divers to find ways to better ensure stock sustainability and improve the capacity for adaptive management since 2014.

They formed a working group that has designed a cost-effective way to expand the geographic scope of data collection. They are testing a small scale datacollection programme to measure the length of red abalone to help estimate the sustainability of the current fishing pressure.

This local diver-led programme has developed a device for measuring red abalone. When in use, the length of the red abalone is imprinted onto a white plastic strip. A diver can record the length of numerous abalone on one strip in a relatively short period of time.

This focus on small-scale data collection complements the efforts of the California Department of Fish and Wildlife to improve the fishery along the length of the northern California coastline, something that may well have an application in New Zealand.

Dr Best's current research will make up the second in a series of three reports, which will be released in early 2017, regarding the future management of New Zealand's fisheries.