Benthic Protection Areas in New Zealand

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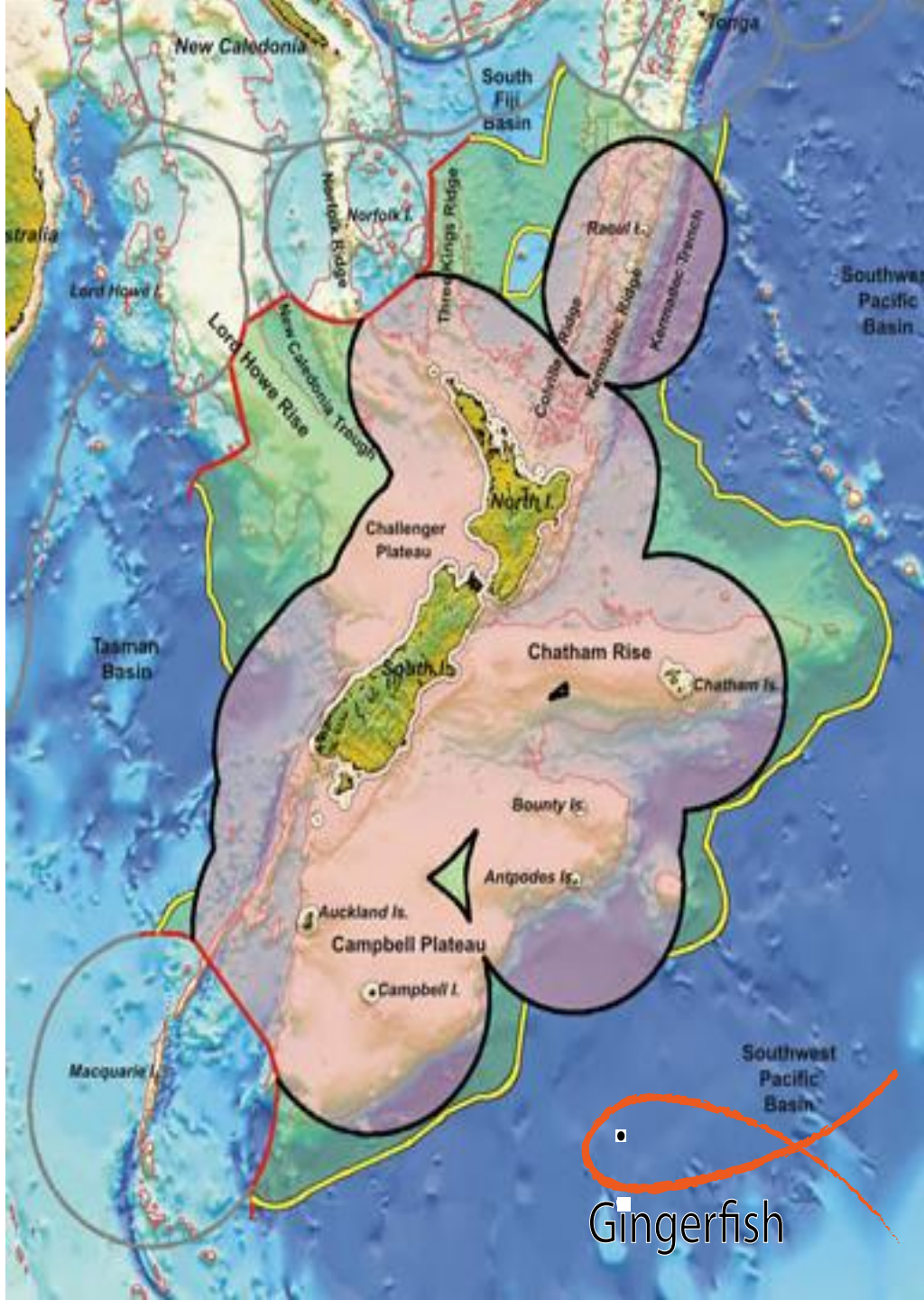
CONTEXT

New Zealand:	small land mass large maritime zone
TS & EEZ area:	4.2 million km^2 4th largest in world
Protected:	31% of maritime area, mostly in EEZ
Fisheries:	130 commercial species. 10 deepwater species = 70% total NZ catch. NZ$ 2 billion pa exports. 16,500 direct jobs.



INTRODUCTION

- Benthic Protection Areas (BPAs) are special case of Marine Protected Areas (MPAs)
- Enabled by ITQ ownership rights.
- Aim to protect benthic habitat and species from mobile demersal fishing gear impacts.
- Developed for water deeper than 200m.
- Mostly in the EEZ (i.e. outside 12 nm)
- Industry initiative, taken up by government, implemented under NZ Fisheries Act

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HISTORY OF BENTHIC PROTECTION IN NZ

2001 Seamount Area Closures: Fishing on 17 seamounts across the EEZ prohibited.

2007 Benthic Protection Areas created:

No mobile bottom gear (dredges, demersal trawls)
No midwater trawls permitted within 100m of the seabed
Trap, pot and longline (bottom and surface) gears permitted
Midwater trawl gear usable if monitored -
Ministry observer required, depth monitor use required. Intent to fish notification is required.

Principally enforced with VMS and observers

Tough penalties for rule breaking – NZ$ 100,000 fine, seizure of vessel

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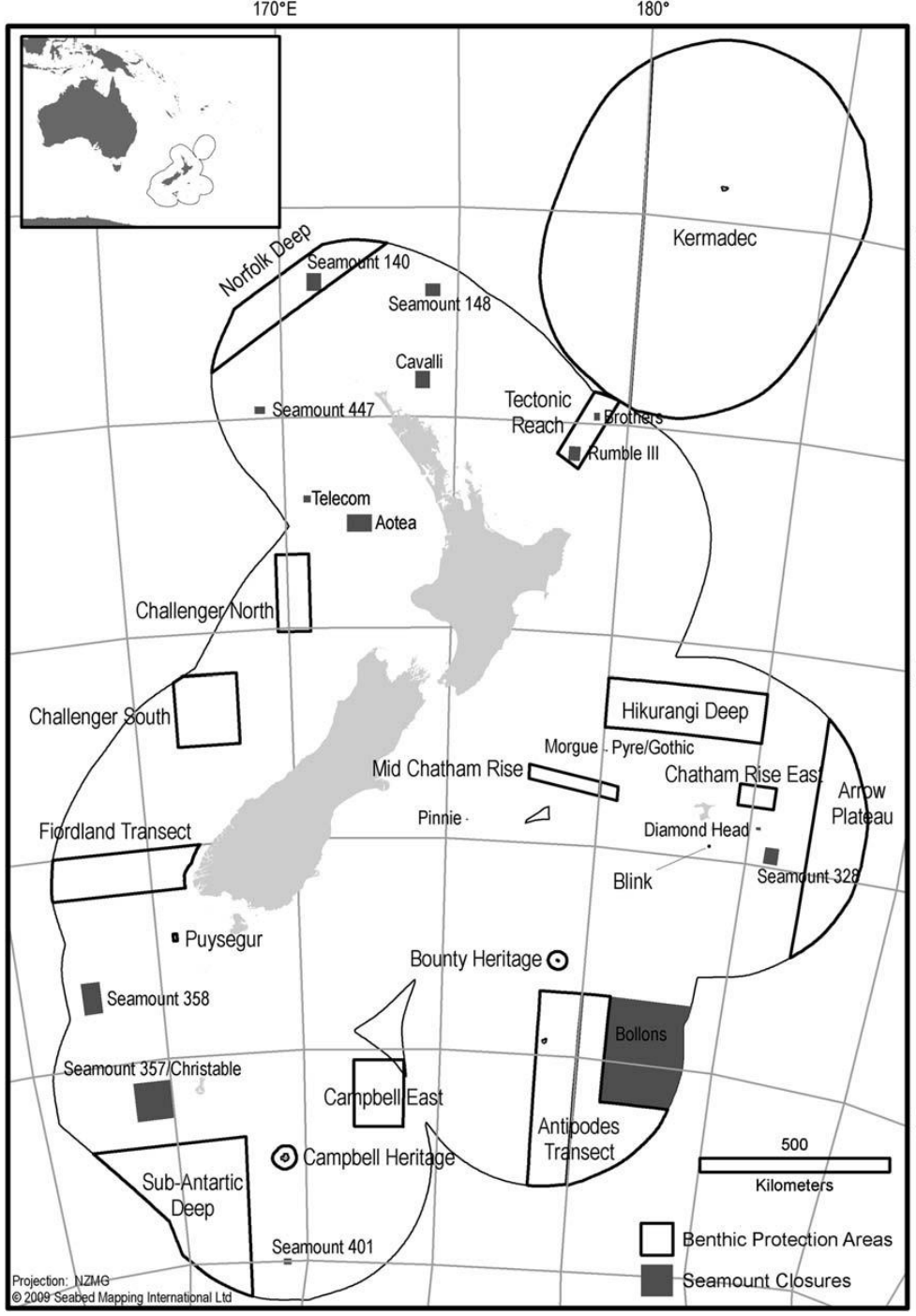
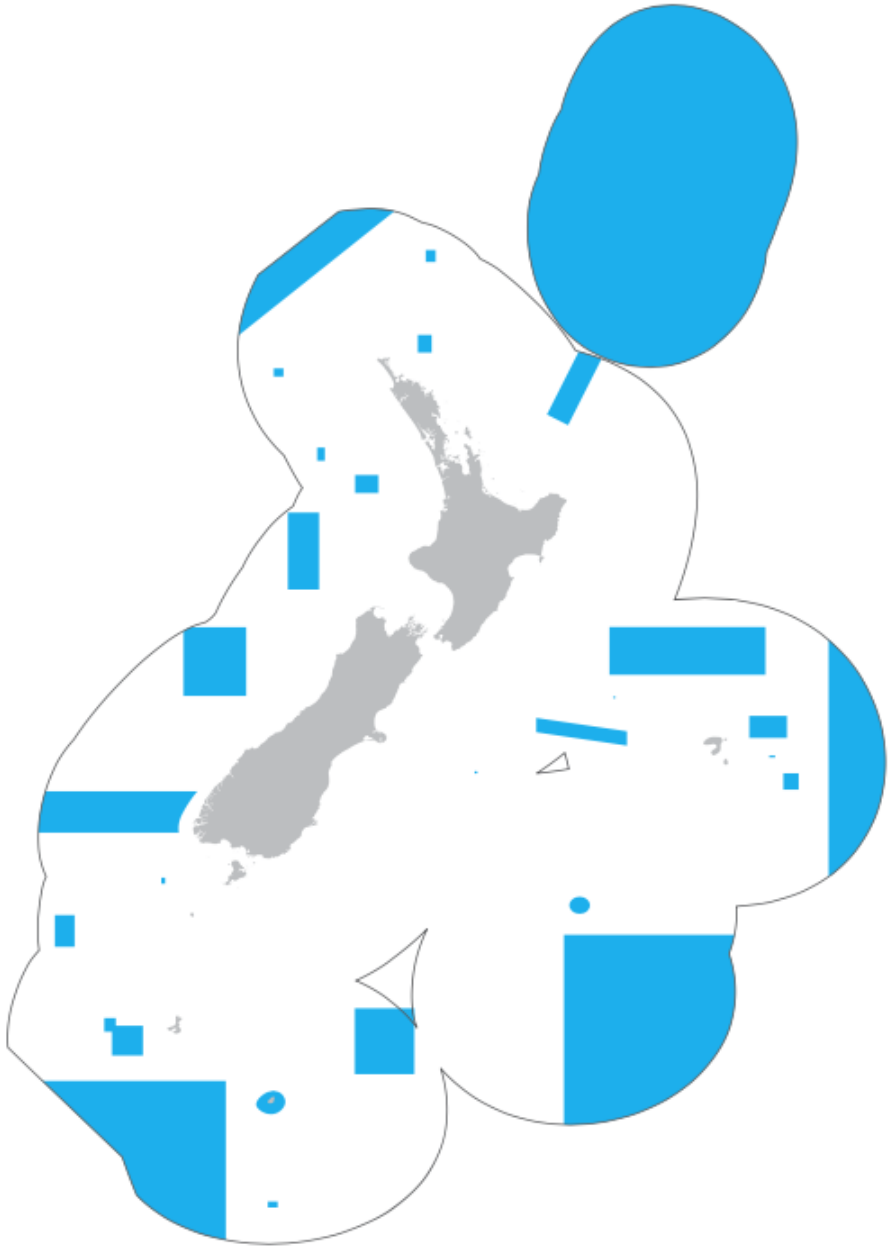

170°E
180°
30°S
40°S
50°S
Kermadec
Norfolk Deep
Seamount 140
Seamount 148
Cavalli
Seamount 447
Tectonic Reach
Brothers
Rumble III
Telecom
Aotea
Challenger North
Challenger South
Hikurangi Deep
Morgue
Pyre/Gothic
Mid Chatham Rise
Chatham Rise East
Arrow Plateau
Pinnie
Diamond Head
Fiordland Transect
Blink
Seamount 328
Puysegur
Bounty Heritage
Seamount 358
Bollons
Seamount 357/Christable
Campbell East
Antipodes Transect
Campbell Heritage
Sub-Antartic Deep
Seamount 401
500
Kilometers
Benthic Protection Areas
Seamount Closures
Projection: NZMG
© 2009 Seabed Mapping International Ltd



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DECISION CRITERIA

Large ~31% zone

Relatively unfished (high degree of naturalness).

Simple boundaries – easy to manage.

Representative of the marine environment.

Biodiversity and VMEs – inclusion of UTFs (including seamounts and hydrothermal vents provided for protection of key components of biodiversity and VMEs.

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REPRESENTATIVE

This was a key component. Additional areas were requested by government to ensure that a high degree of representativeness was achieved.

Four components:

1. Large scale, latitude and longitude, and subtropical front distribution.

2. Not less than 10% of different habitat proxies (9 of the 2005 MEC) – only failed one class (3%).

3. Depth distribution of closures (compared to the depth distribution within EEZ).

4. Included UTFs, seamounts >1000m high, including hydrothermal vents.

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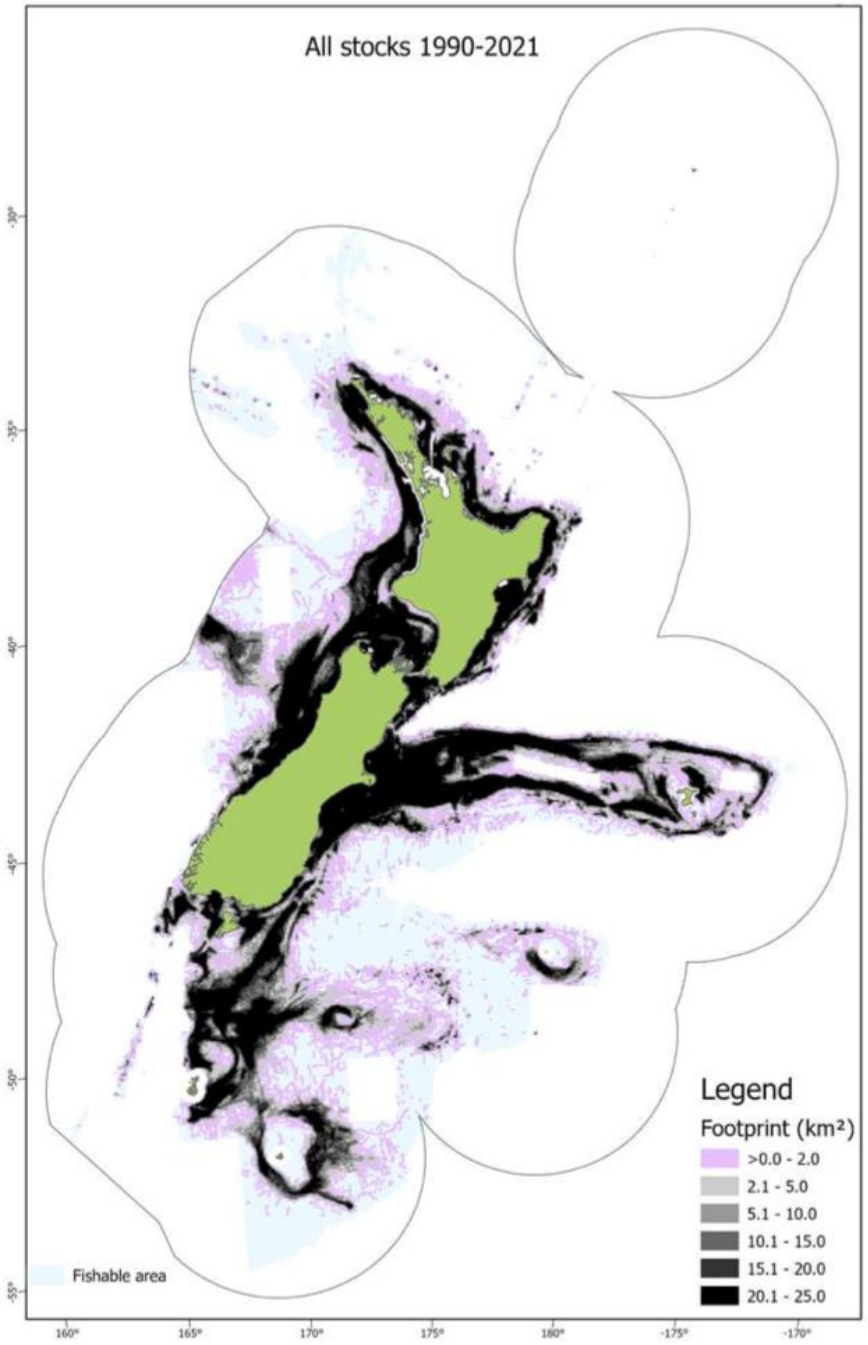

FOOTPRINT

The 2021 trawl footprint was ~74,500 km².

The total area trawled from 1990 to 2021 estimated at 462,600 km².

1990-2021 footprint ~11% of the total area (EEZ and TS).

Source: MacGibbon, D.J.; Mules, R. (2023). Extent and intensity of bottom contact by commercial trawling and shellfish dredging in New Zealand waters, 1990–2021. New Zealand AEBR Report 316. 174 p.

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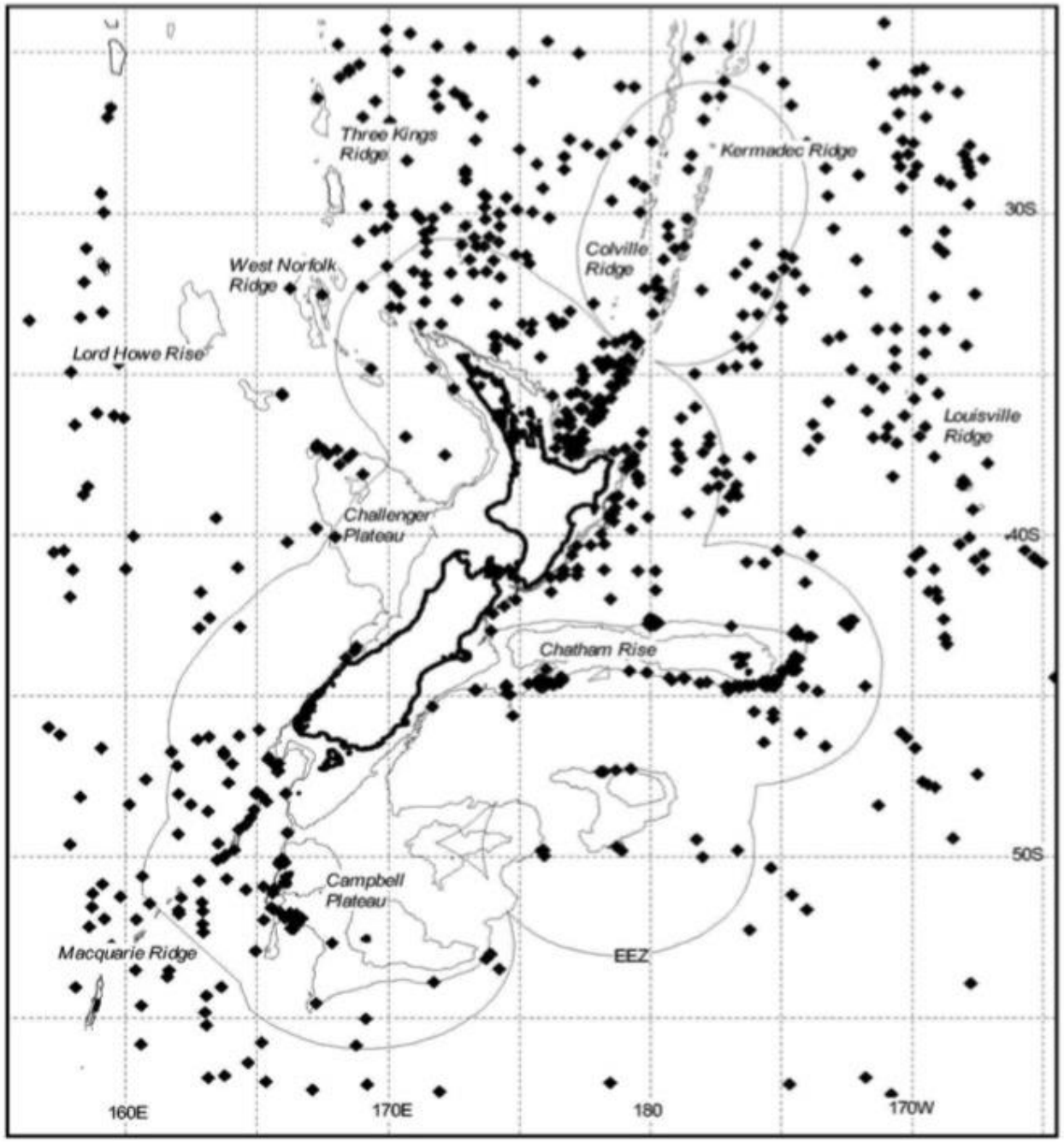
ACCEPTANCE & ISSUES

- Industry driven initiative
- Pushback from eNGOs – not consulted or involved.
- Some wider public scepticism – generalised distrust of industry.
- Scientific community showed some initial sceptical - not consulted.
- Fully endorsed and supported by government.
- International community very accepting, widely viewed as ground-breaking.
- More inclusion and communication – with delay in implementation.
- Generally improving public perception over time.
- **More than 15 years benthic protection for 31% of NZ waters.**



OUTCOMES

What has been protected:

UTFs – 52%.

88% hydrothermal vents.

a broadly representative 31% of the zone protected over 15 years.

Rowden, et al. (2005)

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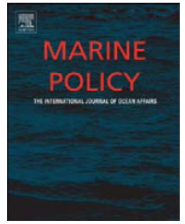

Private rights, public benefits: Industry-driven seabed protection

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Helson, J. et al. (2009). Private rights, public benefits: Industry-driven seabed protection. Marine Policy, doi:10.1016/j.marpol.2009.11.002

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