New Zealand's Orange Roughy Certification Program

George Clement, Chief Executive, Deepwater Group Ltd

10 February 2015

Deepwater Group

A non-profit organization representing 91% of deepwater quota

Vision: To be recognized as the best managed deepwater fisheries in the world

It’s not enough to simply tell people we are sustainable

We are verifying this through independent certification

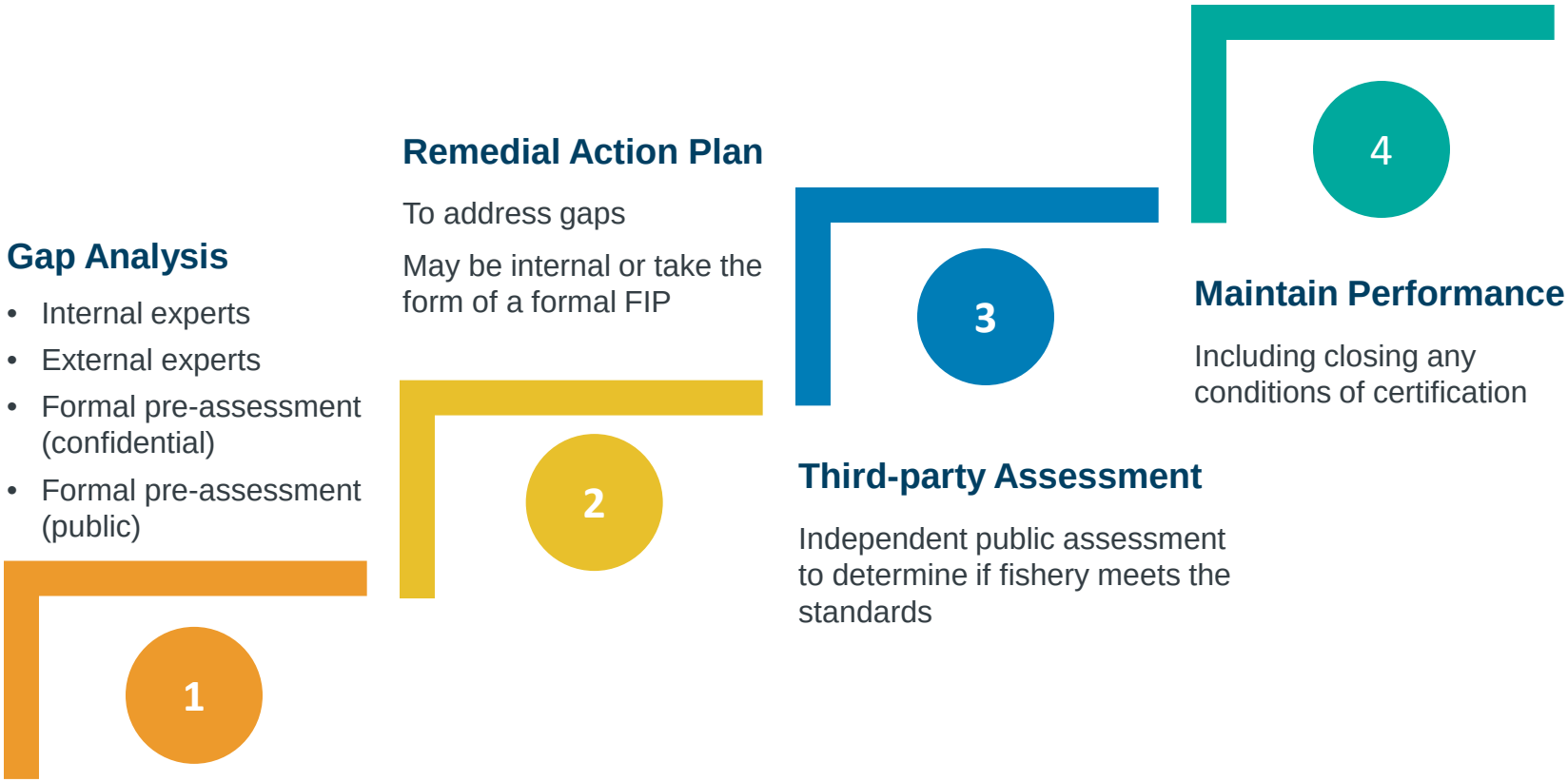
“New Zealand has the best seafood in the world”

Rt. Hon. John Key, Prime Minister 2014

New Zealand orange roughy

Fisheries Certification Program

A four step work program to achieve certification:

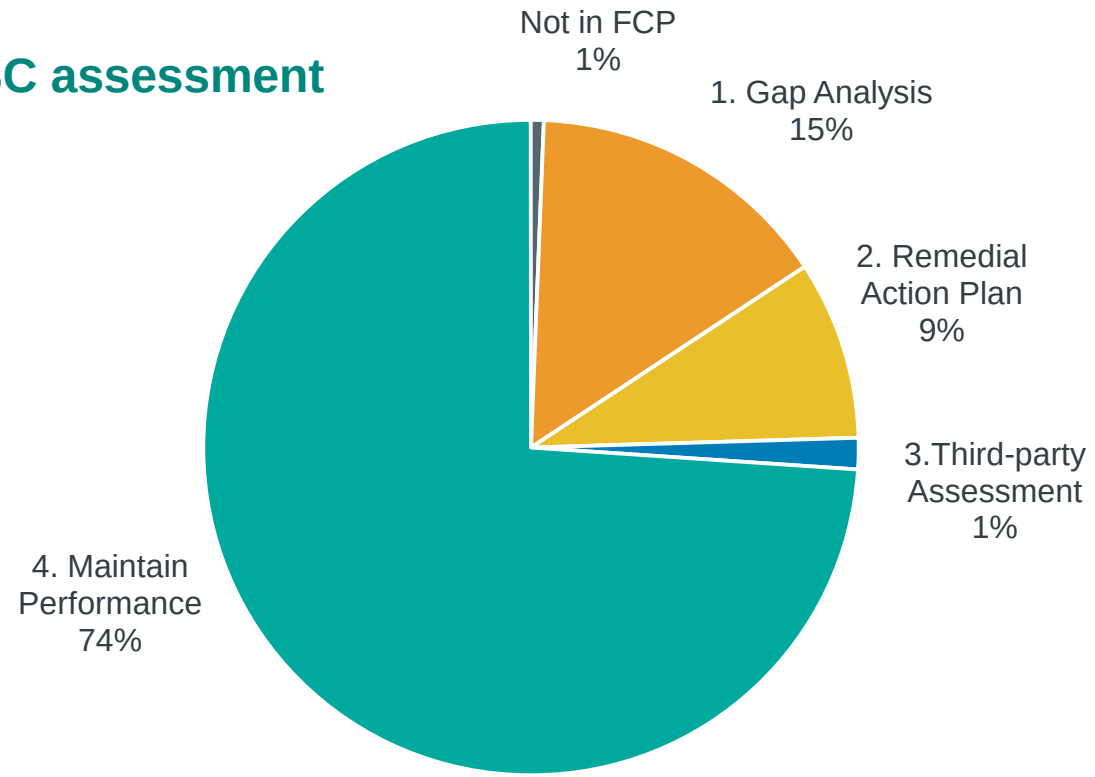


Goal: To have all of our main deep water fisheries certified as sustainable

Certification Status of our Fisheries

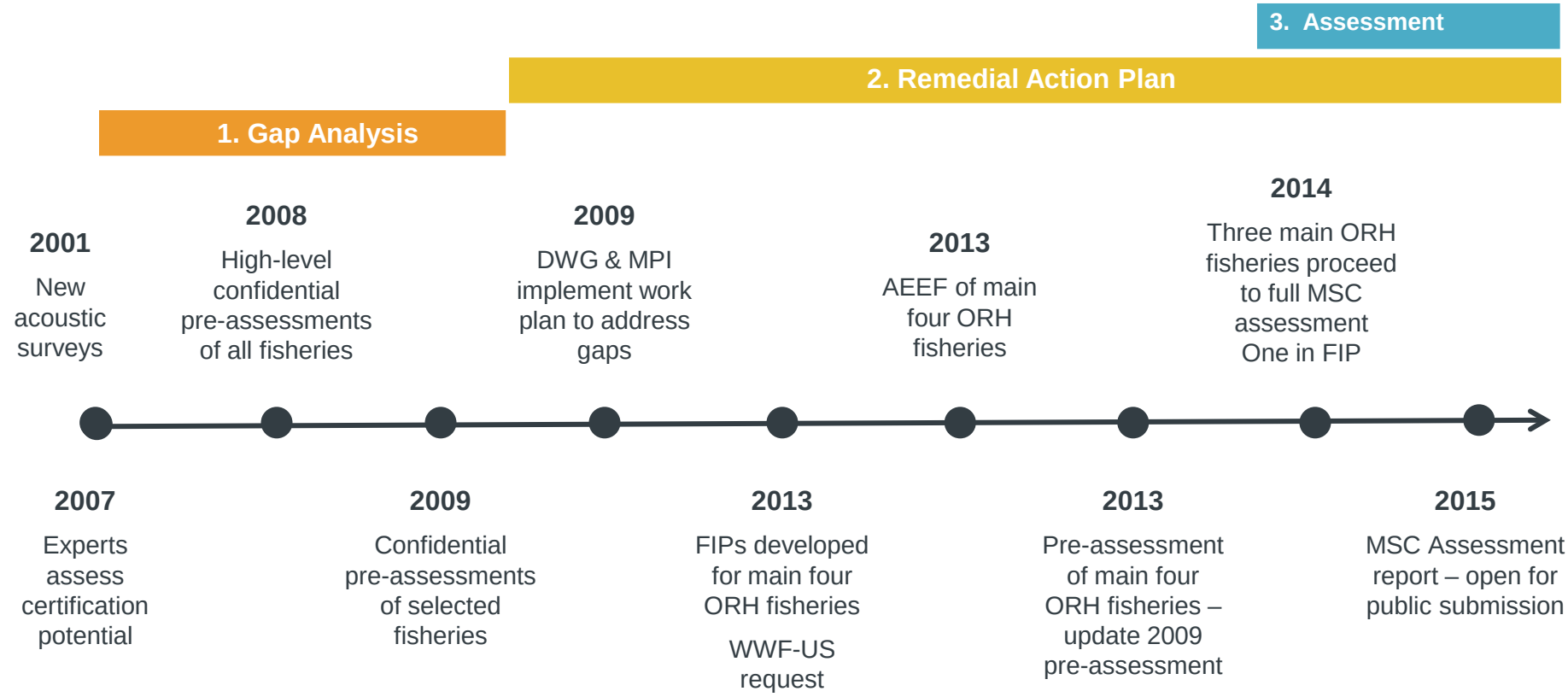
New Zealand's deepwater fisheries catch

- **99% in our Fisheries Certification Program**
- **75% certified or undergoing MSC assessment**
- **17 Units of Certification**
- **3 ORH fisheries under MSC assessment**



Orange Roughy Certification Progress

A 15 year long journey - progress towards certification



Orange Roughy Certification Timeline

MRAG Americas' Assessment Timeline

3. Assessment

Jul 2014
CAB Site Visit for Assessment

Aug 2014-Feb 2015
Preparation of further information on UoA, HCRs, by-catch, habitats, corals

Feb-Mar 2015
Provision of new information to all MSC stakeholders

Feb-Mar 2015
Stakeholders assess information and submit to CAB

Apr-May 2015
CAB assessment, scoring & preparation of draft report

May-Jun 2015
Client review of draft report

Jun-Jul 2015
Peer review. CAB preparation of certification report

Jul-Aug 2015
Stakeholder review of draft certification report

Sep 2015
Certification report/determination.

Objection period commences.

Orange Roughy Certification

Fisheries Improvement Plans

- ORH7A Challenger
- ORH3B North West Chatham Rise
- ORH3B East & South Chatham Rise
- ORH Mid East Coast

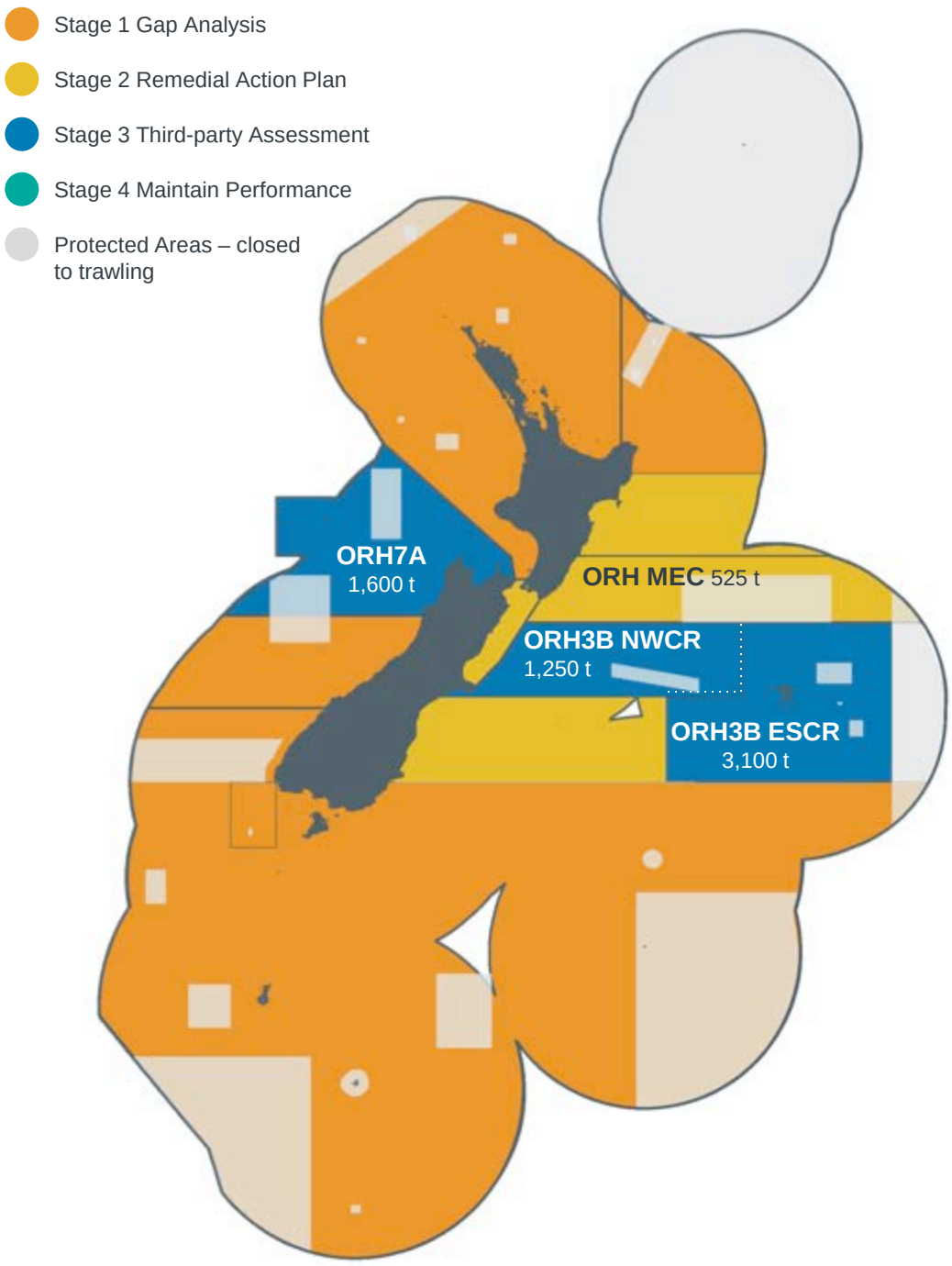
These 4 fisheries comprise >75% of New Zealand's ORH catch

MSC Full Assessment

- ORH7A Challenger
- ORH3B North West Chatham Rise
- ORH3B East & South Chatham Rise

Fisheries Improvement Plan

- ORH Mid East Coast



What is being assessed?

Marine Stewardship Council certification is based on three principles:

Stock Sustainability

Are the fish stocks healthy?

Environmental Effects

Are there adverse environmental effects?

Effective Management

Is there ongoing effective management of the fishery?

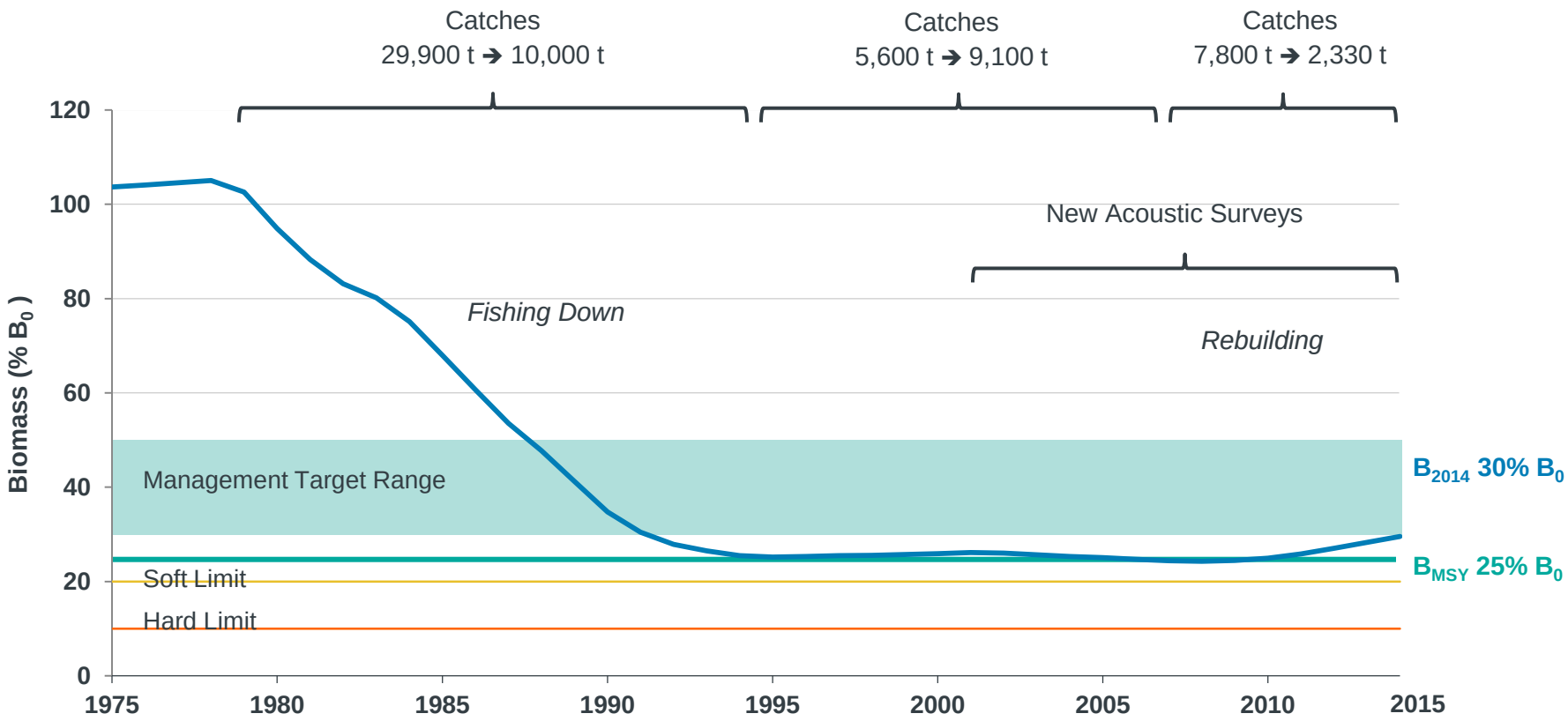
Are the fish stocks healthy?

Stock Sustainability

East and South Chatham Rise (ORH3B ESCR)

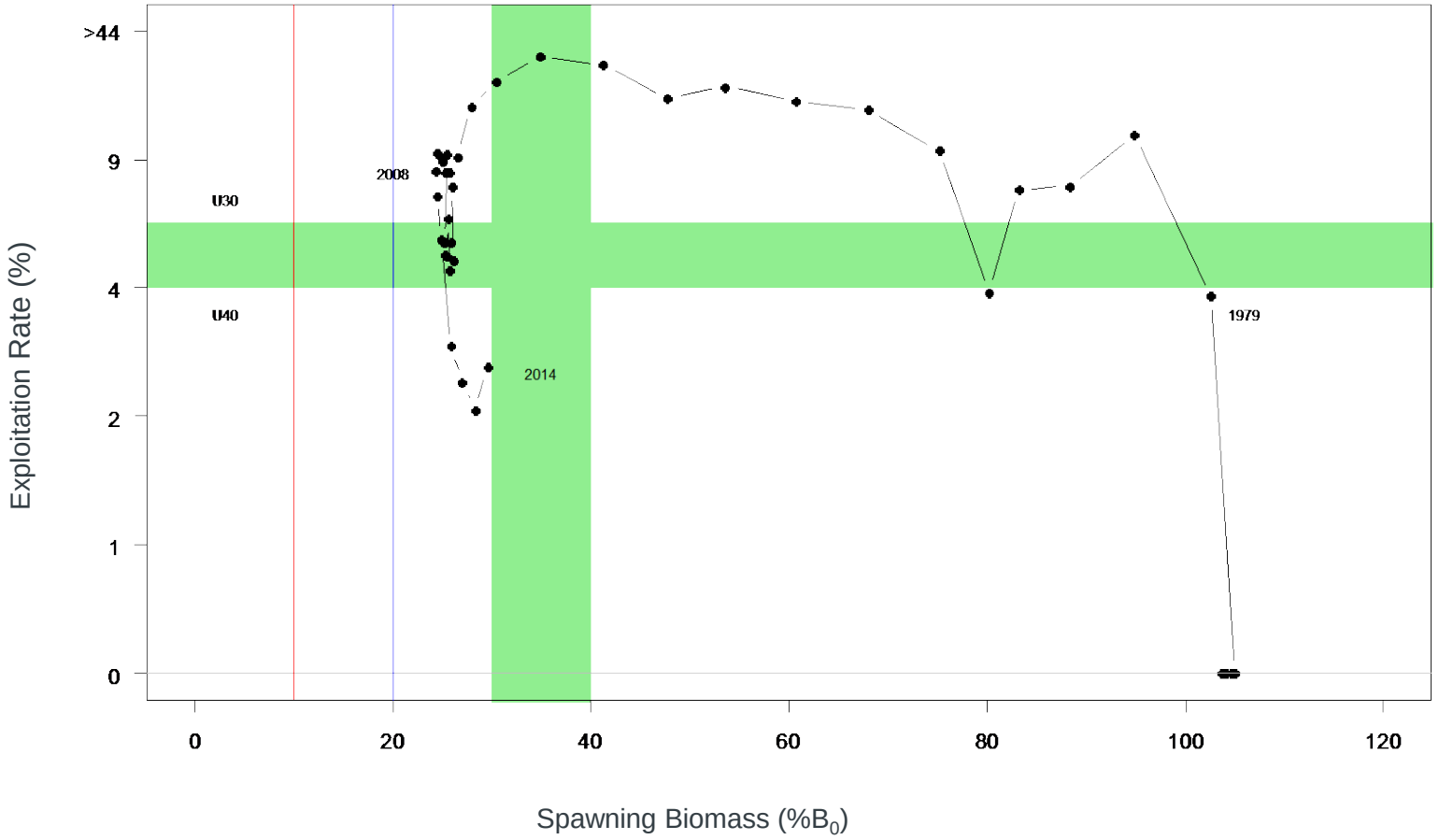
Yield from 40% B_0 = 6,800 t

Current Catch Limit = 3,100 t



Stock Sustainability

East and South Chatham Rise (ORH3B ESCR)

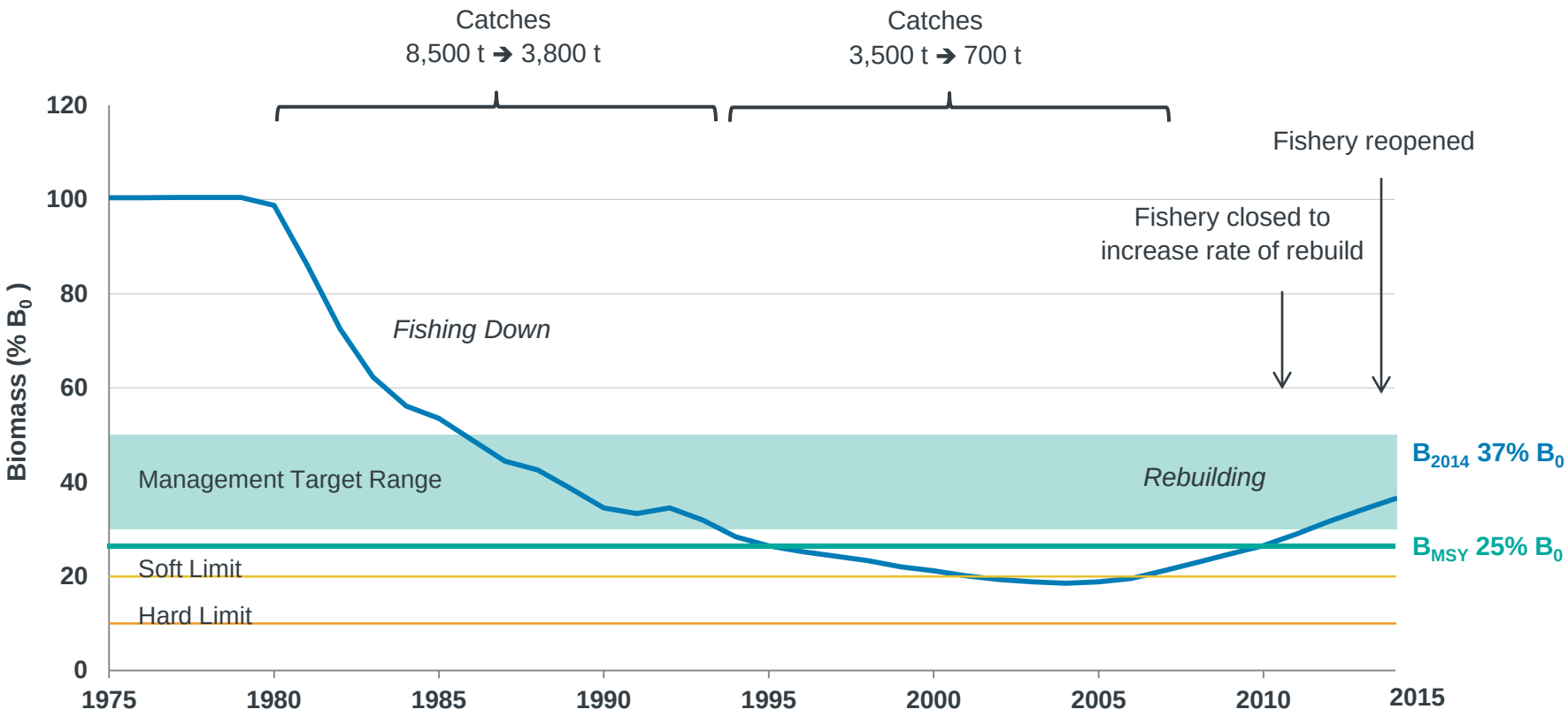


Stock Sustainability

Northwest Chatham Rise (ORH3B NWCR)

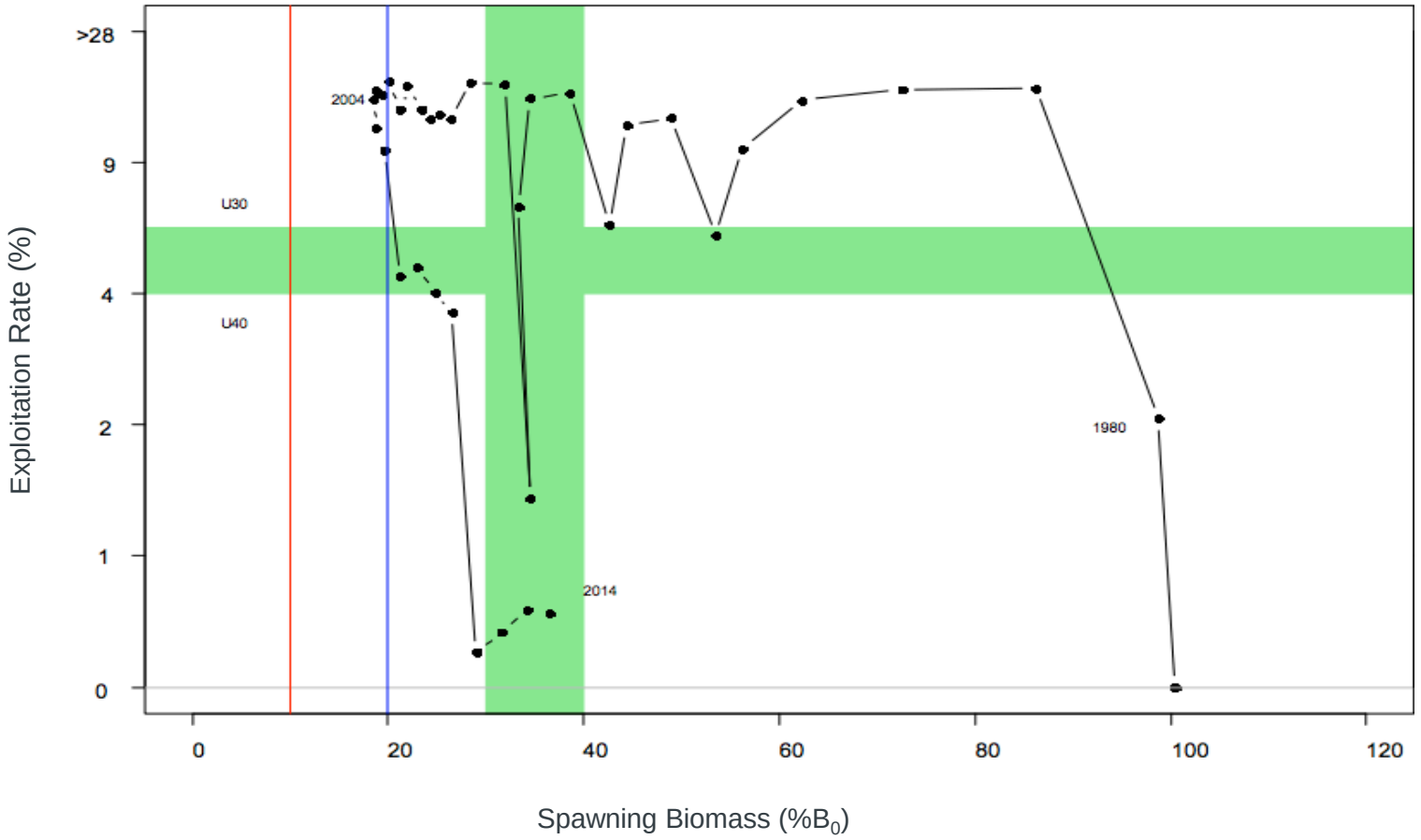
Yield from 40% B_0 = 1,250 t

Current Catch Limit = 1,043 t



Stock Sustainability

Northwest Chatham Rise (ORH3B NWCR)

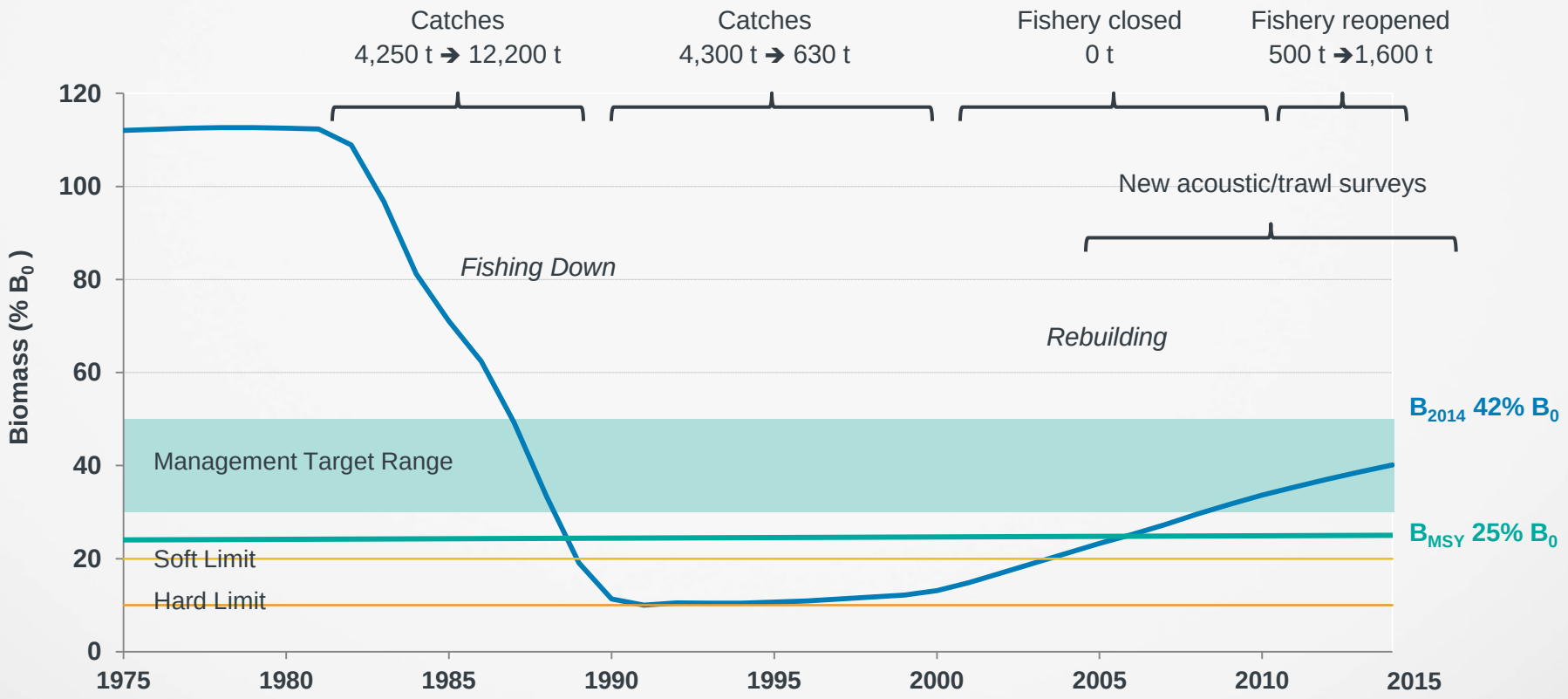


Stock Sustainability

Challenger Plateau (ORH7A)

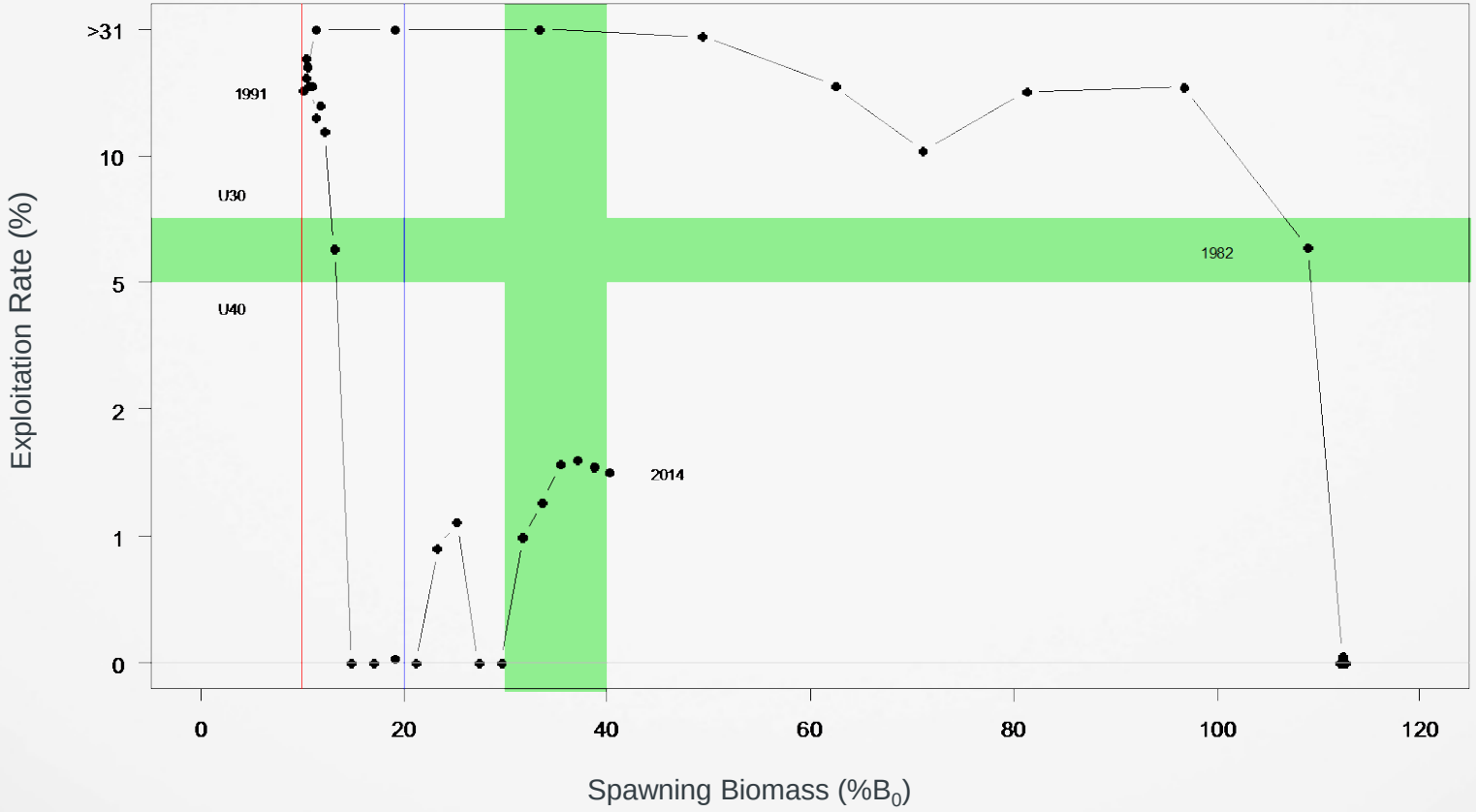
Yield from 40% B_0 = 1,650 t

Current Catch Limit = 1,600 t



Stock Sustainability

Challenger Plateau (ORH7A)




REST
REBUILD
REOPEN

Stock Sustainability

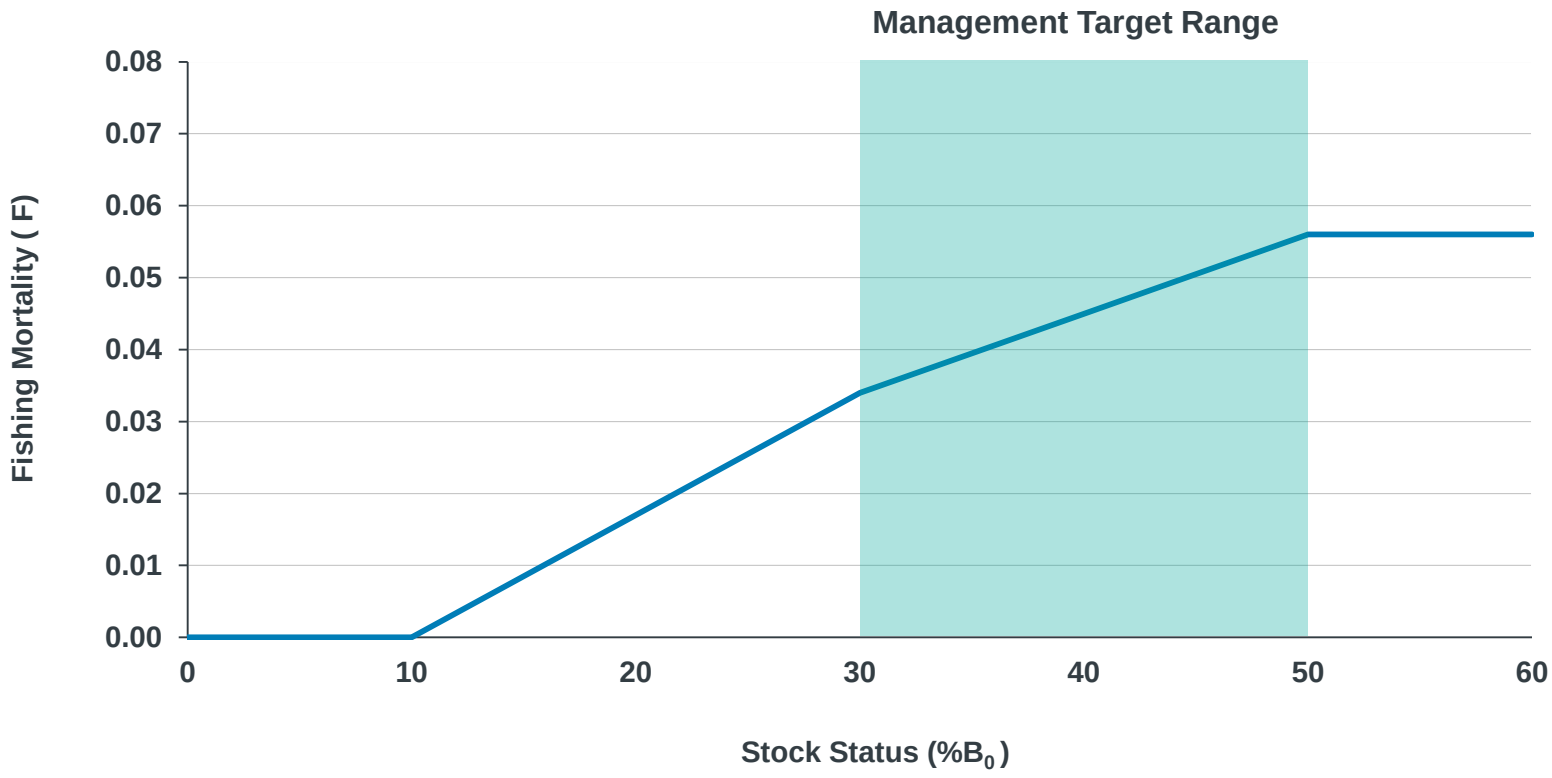
The New Zealand Harvest Strategy Standard provides Management Reference Points to ensure stocks remain healthy and productive

Reference Points	Management Response
Management Target of 30-50% B_0	Catch limits used to maintain stocks within target range
Soft Limit of 20% B_0	Below this threshold, a ***formal time-constrained rebuilding plan*** will be implemented to rebuild stock size to within target range
Hard Limit of 10% B_0	Below this threshold, fisheries will be considered for ***closure***
Rebuild Strategy	Catch limit set that enables stock to rebuild to within target range in ***not more than 2x the time it would take in the absence of fishing***
Harvest Control Rule	A specific HCR developed for ORH fisheries

Stock Sustainability

Management Strategy Evaluation to inform the ORH Harvest Strategy

Harvest Control Rules provide 97% probability ORH stocks are within Target Range



For every **100**,

We leave **96** for the future…

We take **4**

Innovation

Industry has invested in a world leading ***Acoustic Optical System*** which is providing more accurate estimates of orange roughy numbers

Are there adverse environmental effects?

By-catch

New Zealand's orange roughy fisheries take very low quantities by-catch.

Catch Reporting

Detailed reporting and catch balancing procedures required by law for all QMS species

Fisheries Act

Requires stocks/species to be added to QMS if existing management does not ensure *sustainability* nor provides for *utilisation*

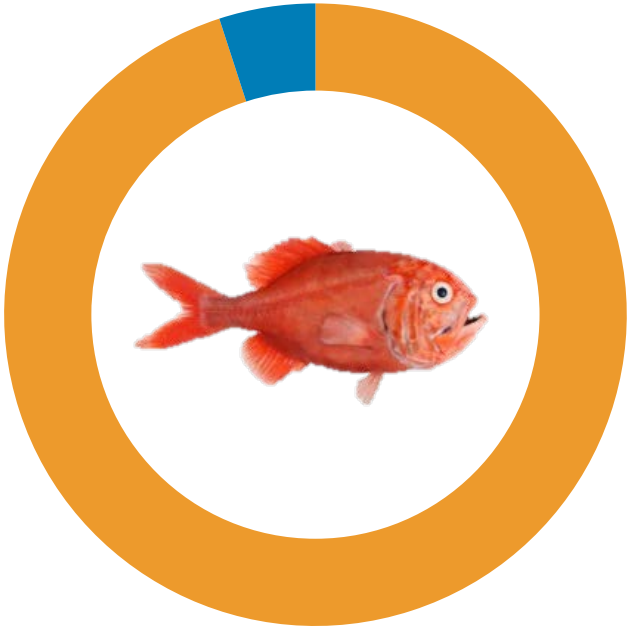
NPOA Sharks

Management of shark species driven by the National Plan of Action for the Conservation and Management of Sharks 2013

Over last five years:

5%

Non-QMS species



95%

ORH or other QMS species

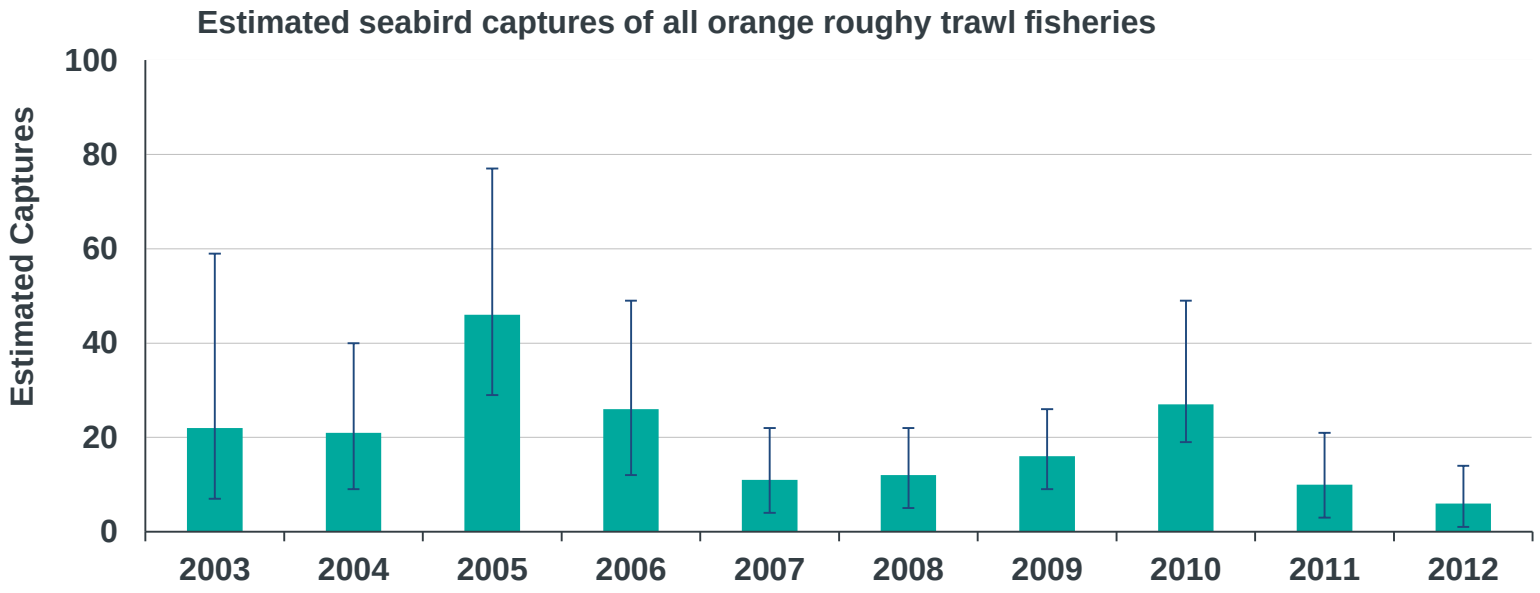
More species of seabirds breed in New Zealand than anywhere else in the world

All seabirds and marine mammals, four coral groups, and several shark species are protected by law in New Zealand

Seabirds

Seabirds are at times attracted to fishing vessels as an opportunistic source of food.

Patterns of 'at risk' behavior vary seasonally and between species.



Interaction information reviewed annually → **Captures decreasing** across all deepwater fisheries since 2005 → Experts have determined **no risk to seabird populations** and good info to support this (ORH AEEF)

Seabirds

Low levels of seabird captures can be attributed to the success of our management measures

Seabird Mitigation
Mandatory use of seabird mitigation devices during fishing

Real Time Reporting
Incidents are reported in real time to DWG and MPI to address why it occurred and how to prevent in future

Vessel-specific Plans
Each vessel has their own tailored plan for how to minimise interactions and manage offal

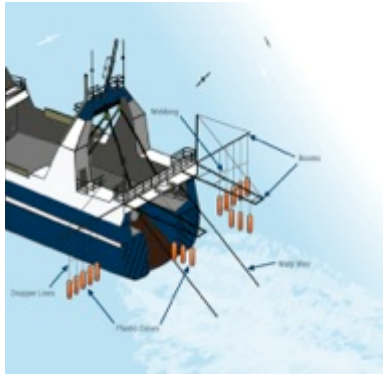
Observer Audits
Observers audit performance and provide feedback on trip-by-trip basis

Education & Training
Crews undergo regular environmental risk management training

Mitigation Research
Research is being undertaken to refine and complement existing mitigation further

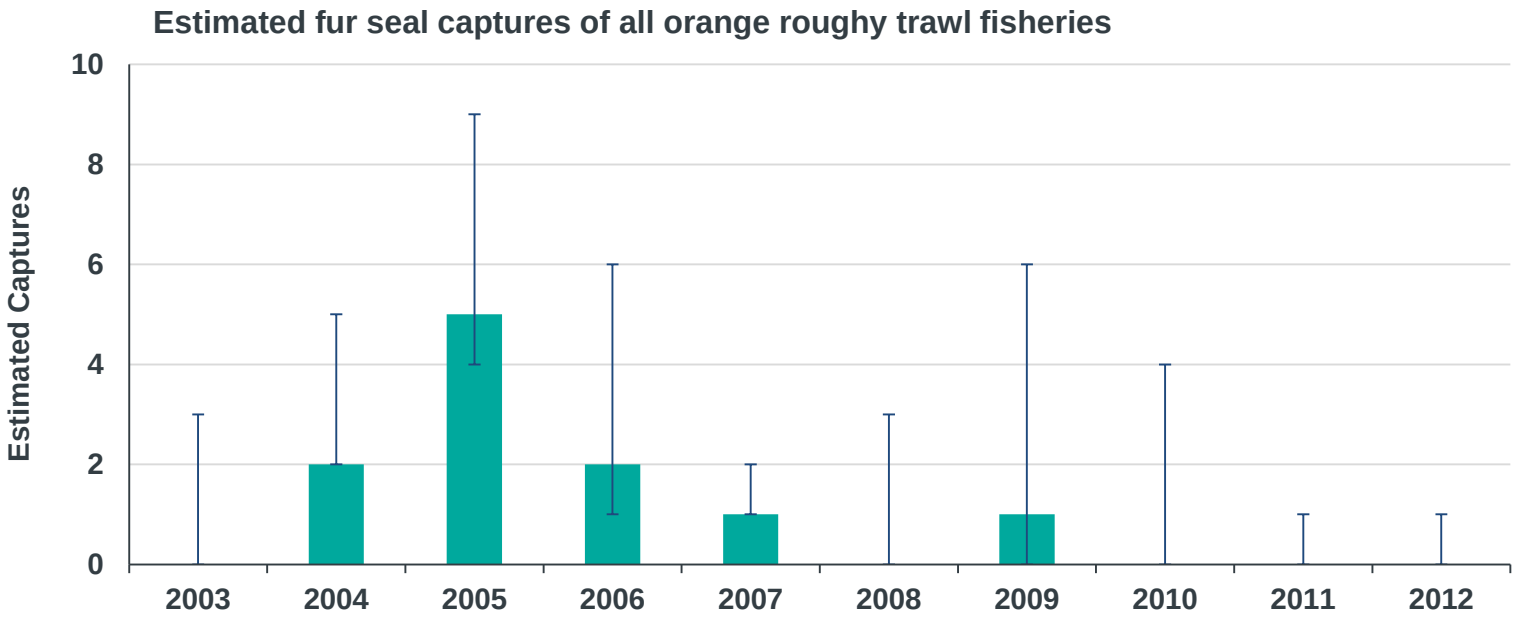
Tori lines

Bird bafflers



Marine Mammals

Few marine mammal captures

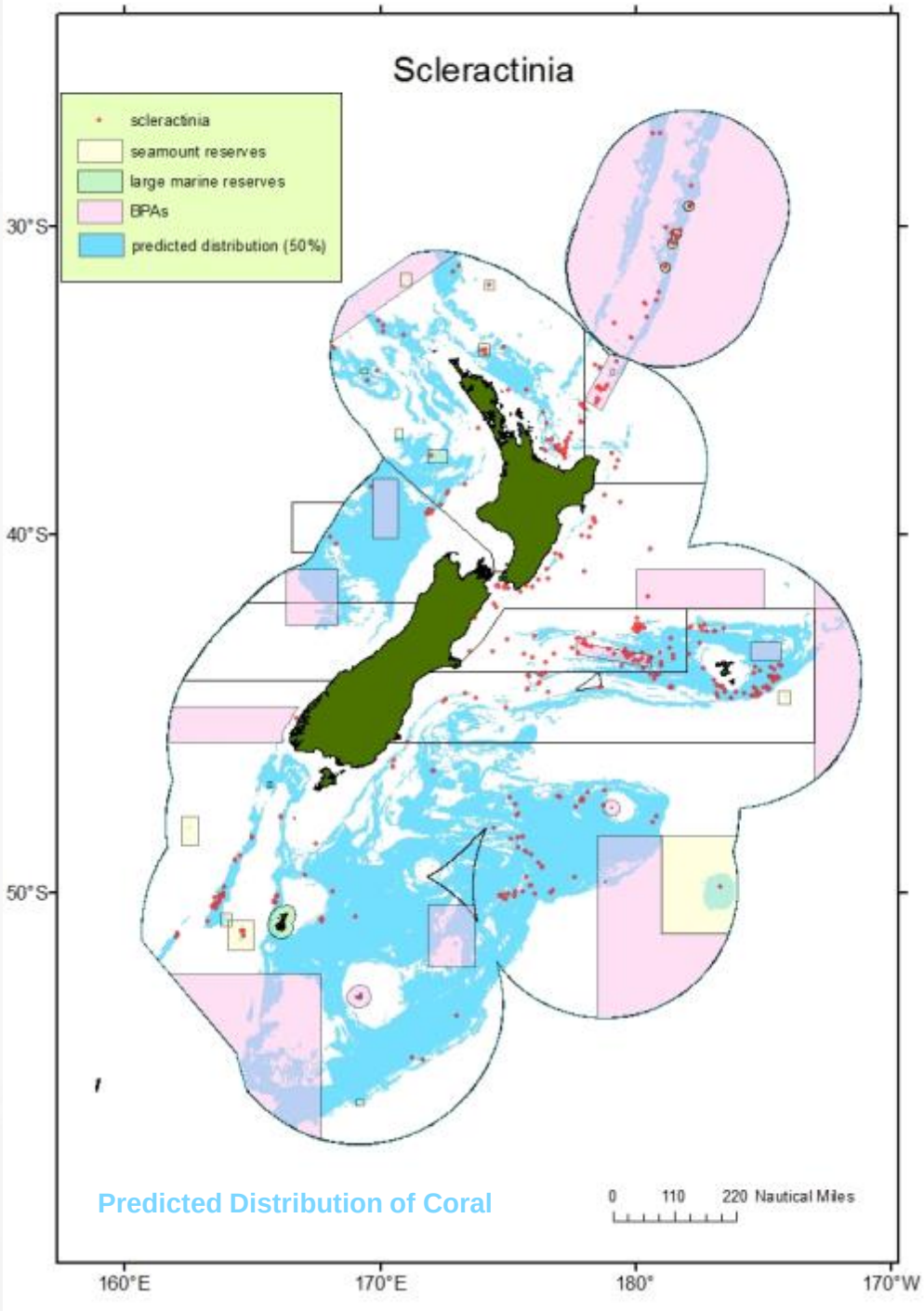


Interaction information reviewed annually → Only other marine mammal captures recorded are 2 sea lions, both released alive in 1997 and 1998 → Experts have determined **no risk to marine mammal populations** and good info to support this (ORH AEEF)

Stony Corals

- ***Protected by law***
- ***By-catch recorded & reported***
- ***Widespread distribution***
- ***Most occur deeper than fishing***
- ***Protected Areas***

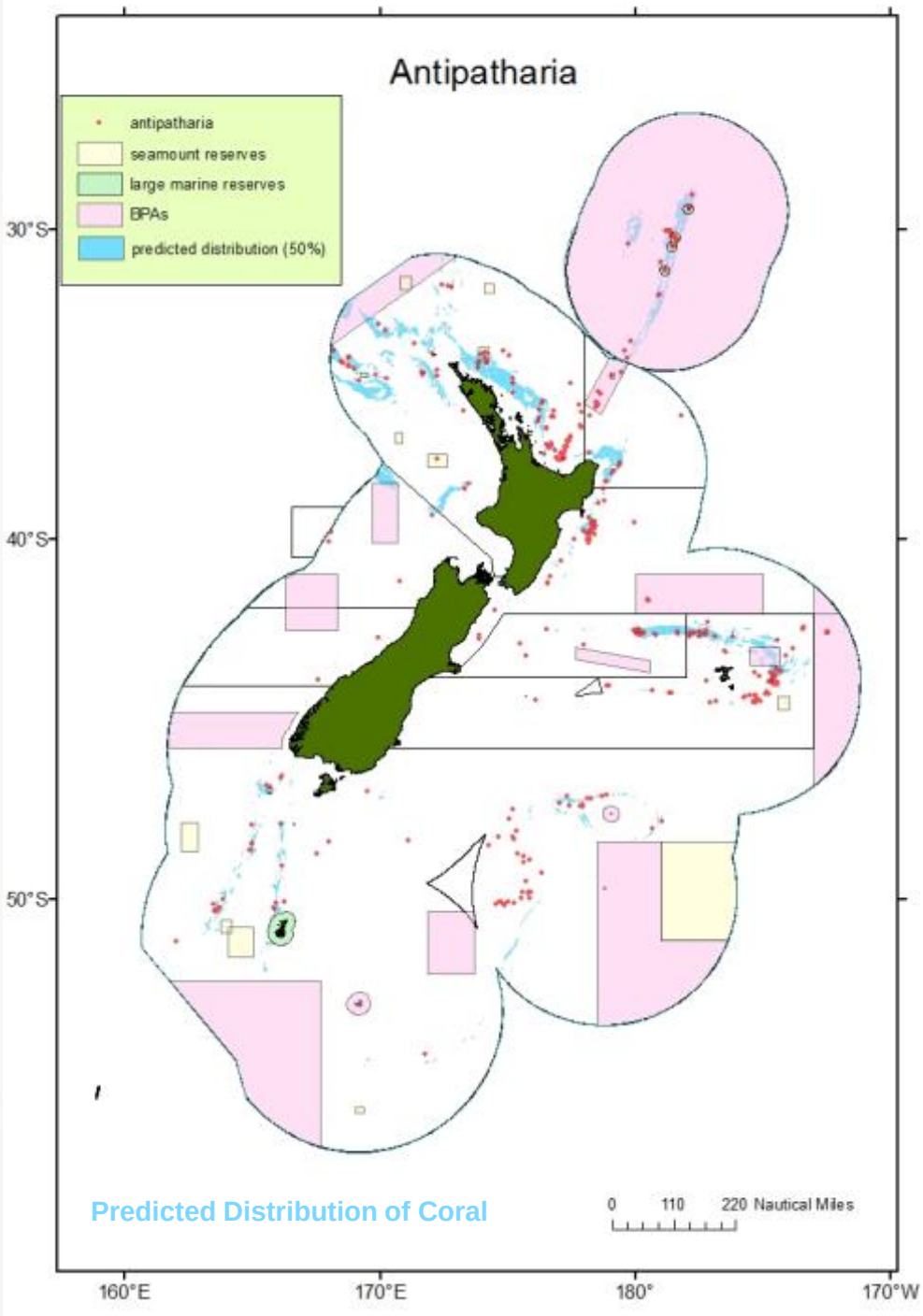
Analysis by NIWA



Black Corals

- ***Protected by law***
- ***By-catch recorded & reported***
- ***Widespread distribution***
- ***Most occur deeper than fishing***
- ***Protected Areas***

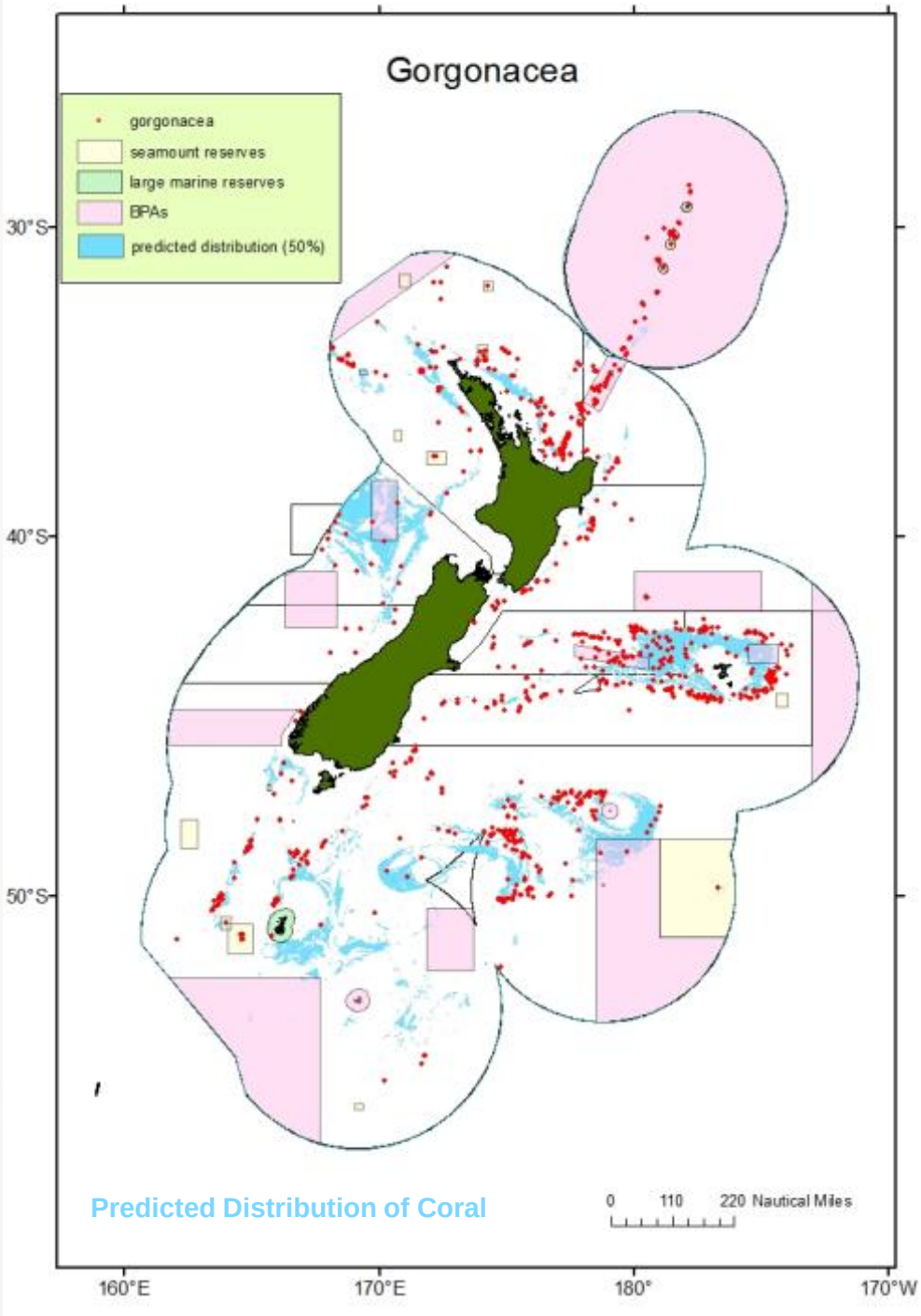
Analysis by NIWA



Gorgonian Corals

- ***Protected by law***
- ***By-catch recorded & reported***
- ***Widespread distribution***
- ***Most occur deeper than fishing***
- ***Protected Areas***

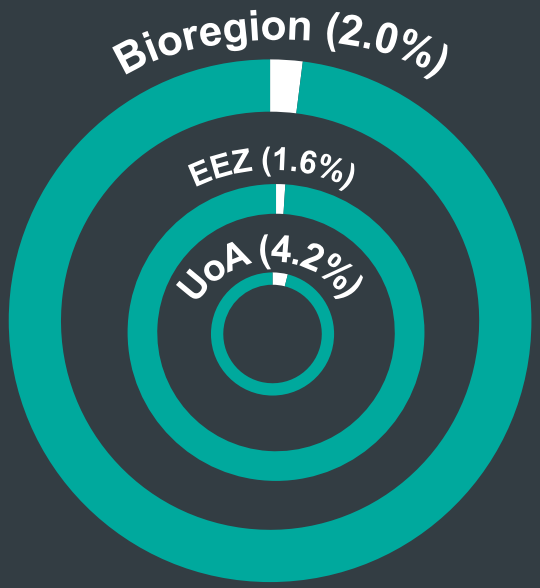
Analysis by NIWA



Corals - Overlap with ORH trawl footprint

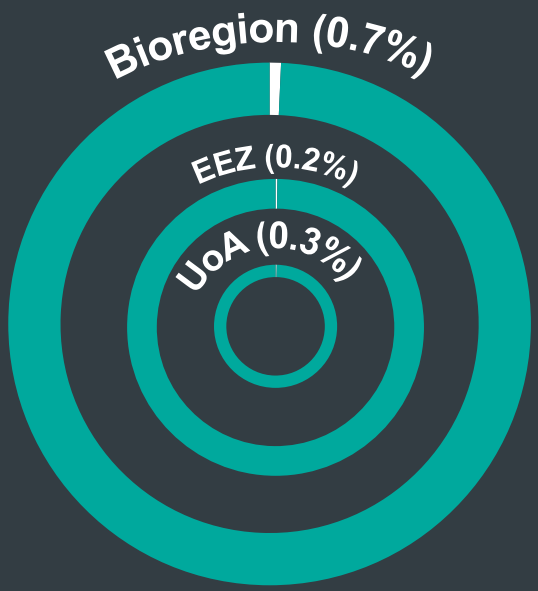
Protected, wide-spread, most occur deeper than we fish

Black Corals



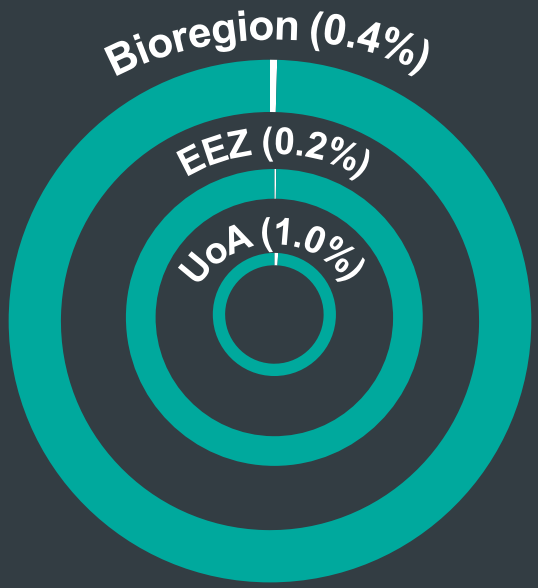
96% closed or not fished

Gorgonian Corals



99% closed or not fished

Stony Corals



99% closed or not fished

Untouched Touched

Analysis by NIWA

Protected Areas

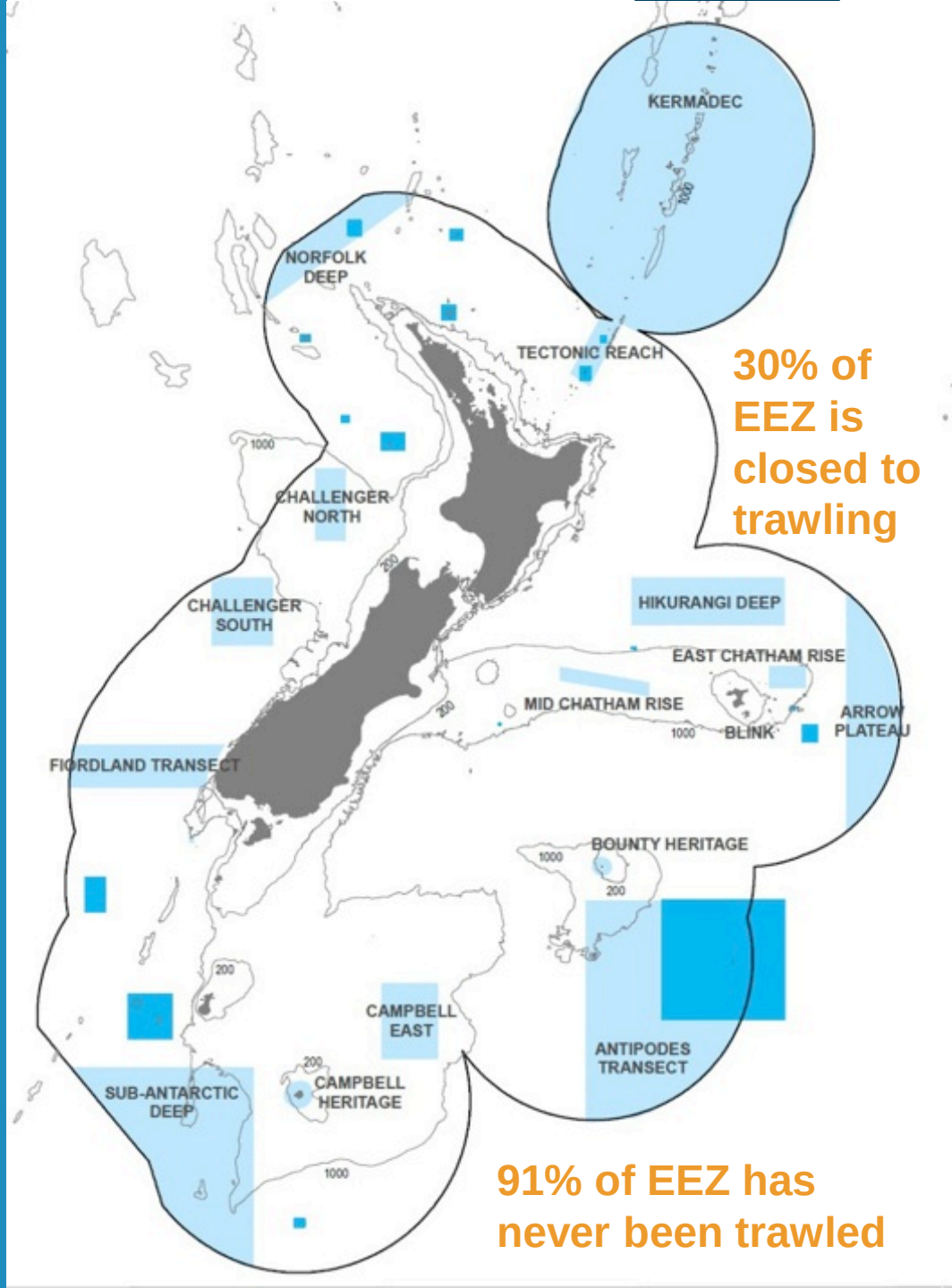
30% of EEZ closed by law to trawling

- Benthic Protection Areas
- ‘Seamount’ Closures

What are protected?

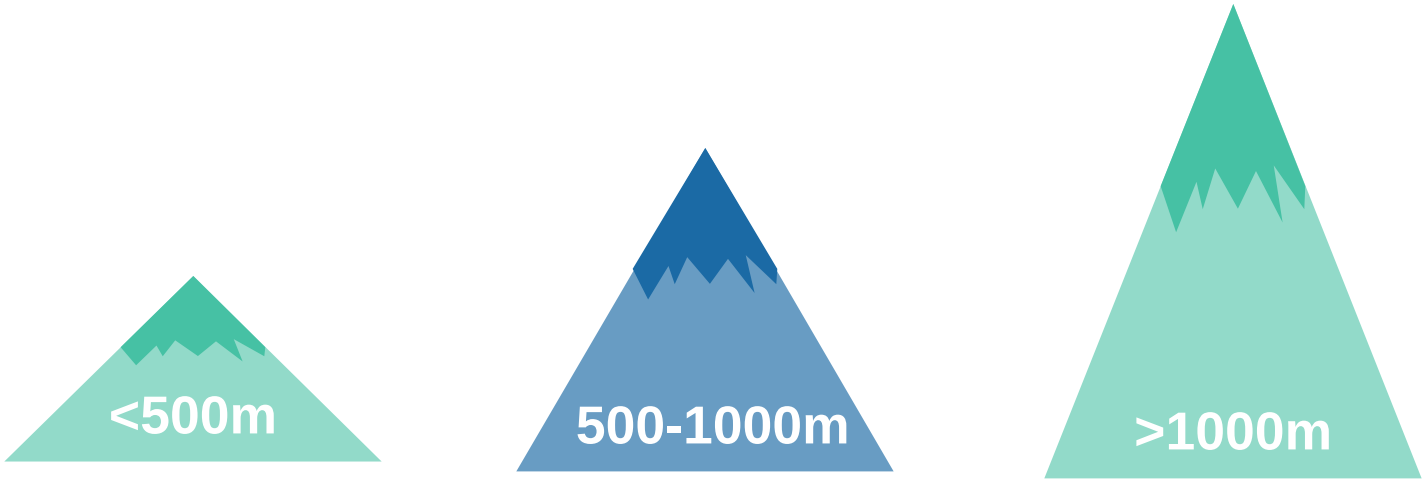
- 10% each Marine Environment Category
- Closures spread east to west and Sub-Tropic to Sub-Antarctic
- Transects from land to EEZ boundary
- Known areas of corals
- 28% of known UTFs
- 52% of seamounts
- 88% of hydrothermal vents
- Total area 4 x New Zealand landmass

Only 1% of EEZ is trawled each year by all fisheries



ORH Habitats - UTFs

Bottom trawling for orange roughy occurs year round over flat ground and on portions of some Underwater Topographic Features* (UTFs)

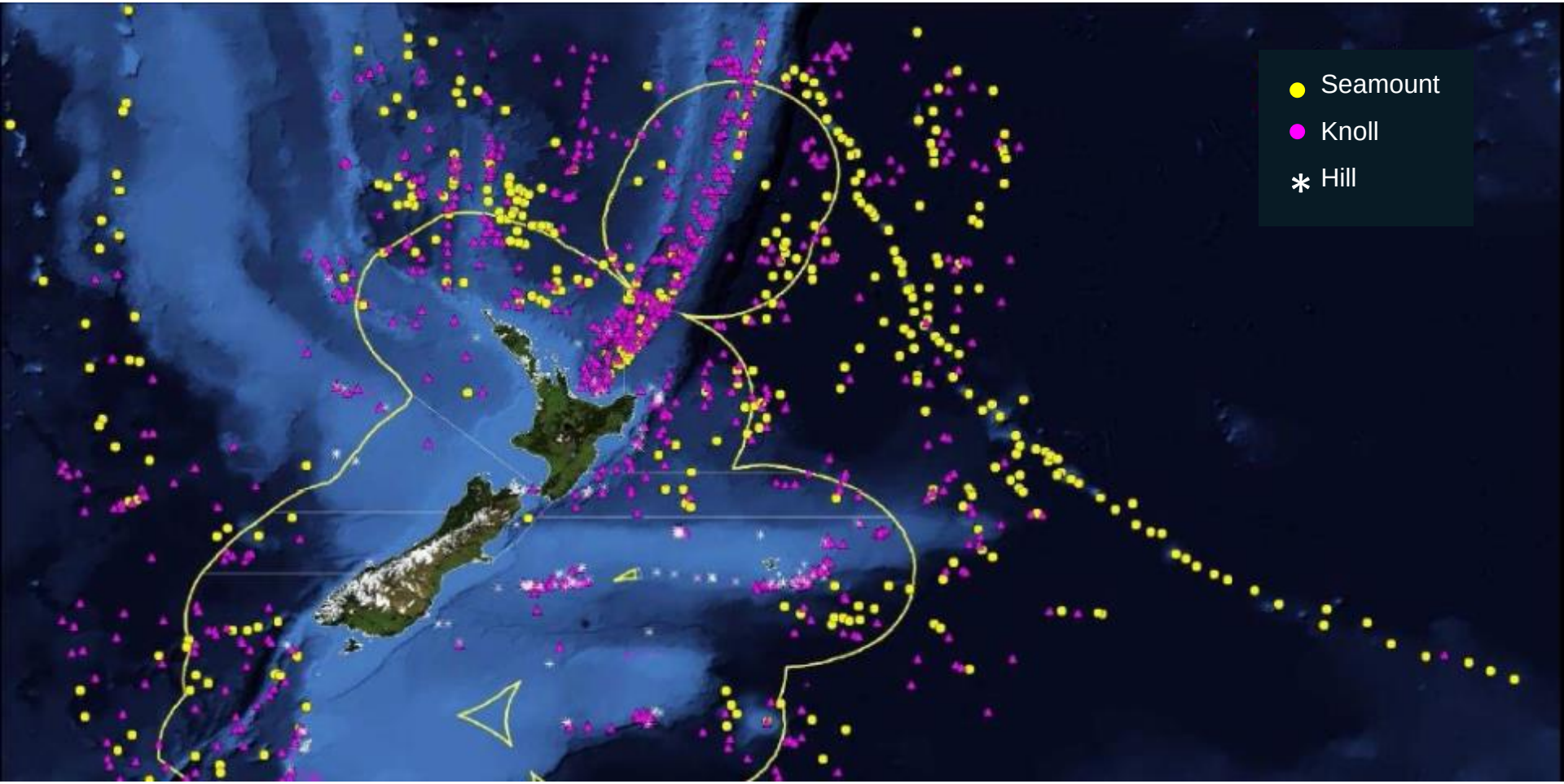


New Zealand's 'Seamount' Closures include both knolls and true seamounts

* As defined by the USA Board on Geographic Names

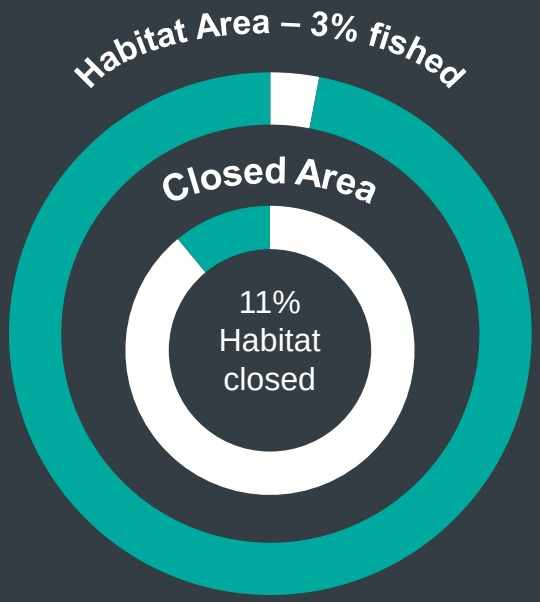
ORH Habitats - UTFs

Known seamounts, knolls and hills within and around NZ EEZ



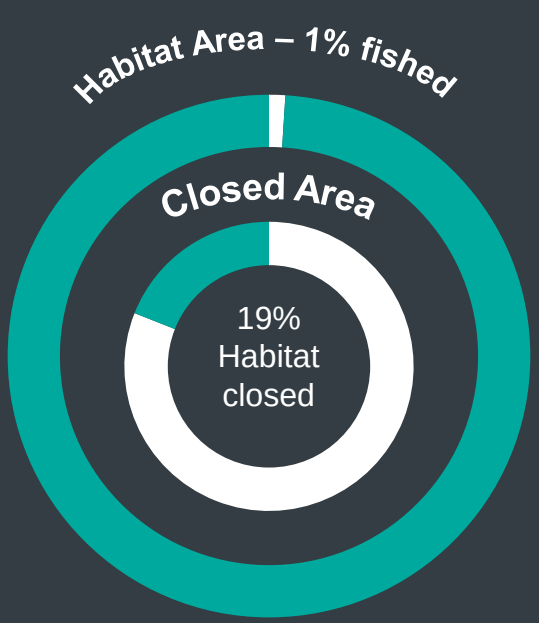
ORH Slope Habitats – 800 m to 1,600 m

Units of Assessment:



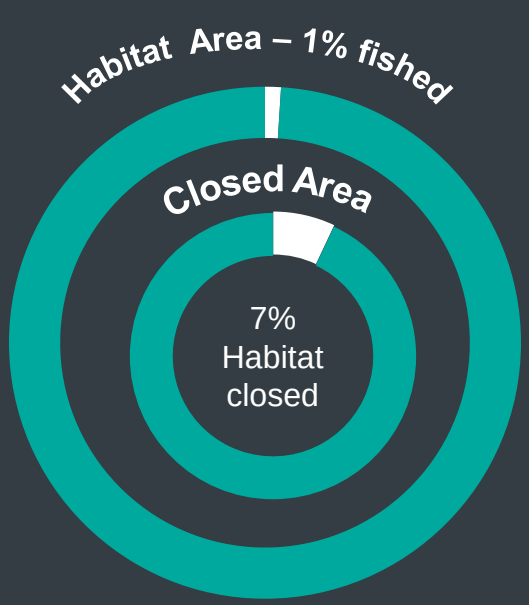
97% closed or not fished

New Zealand EEZ:



99% closed or not fished

Bioregion:



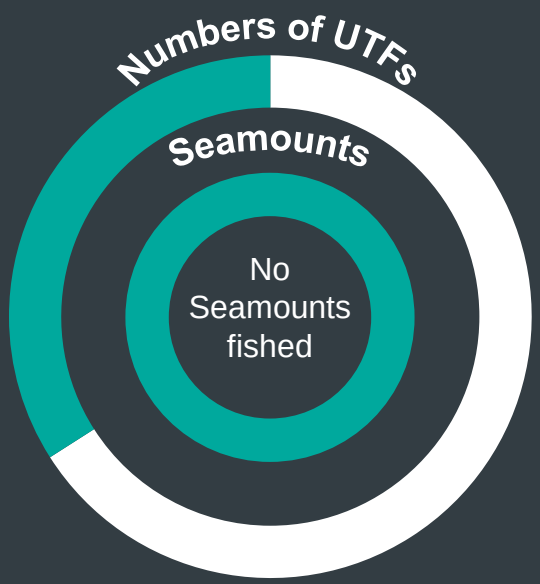
99% closed or not fished

Unfished Fished

Analysis by GNS Science

ORH UTF Habitats – Numbers of UTFs

Units of Assessment:

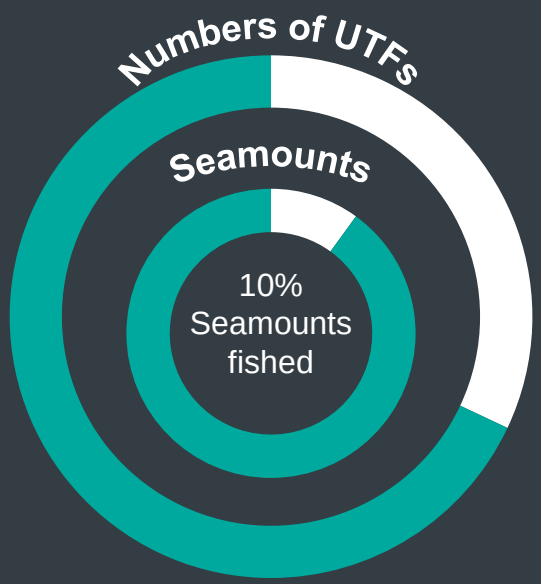


Hills: 112 / 69

Knolls: 3 / 3

Seamounts: 1 / 0

New Zealand EEZ:

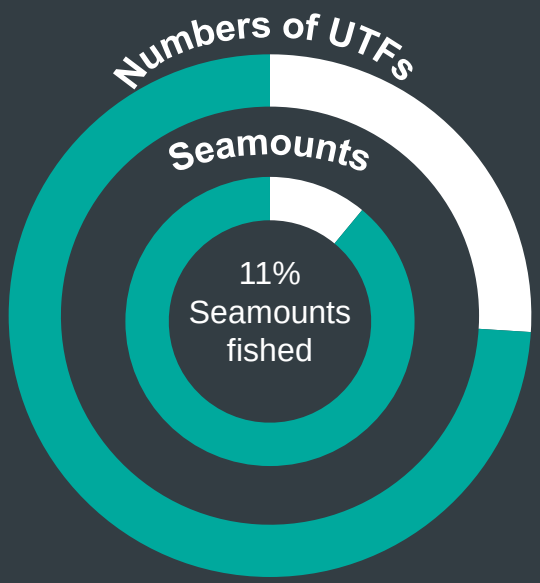


Hills: 287 / 124

Knolls: 106 / 14

Seamounts: 58 / 6

Bioregion:



Hills: 307 / 124

Knolls: 129 / 12

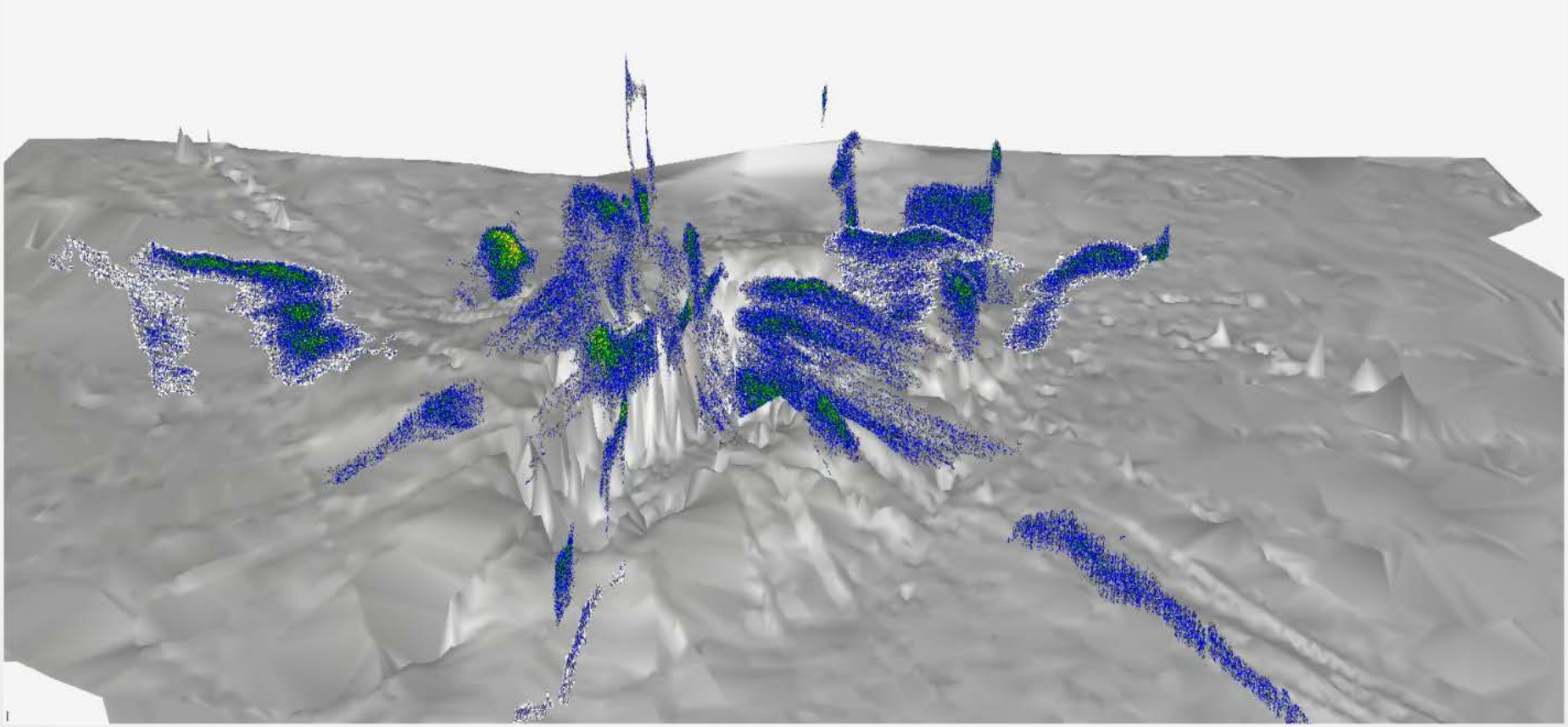
Seamounts: 137 / 15

Unfished Parts Fished

Data and analysis by NIWA

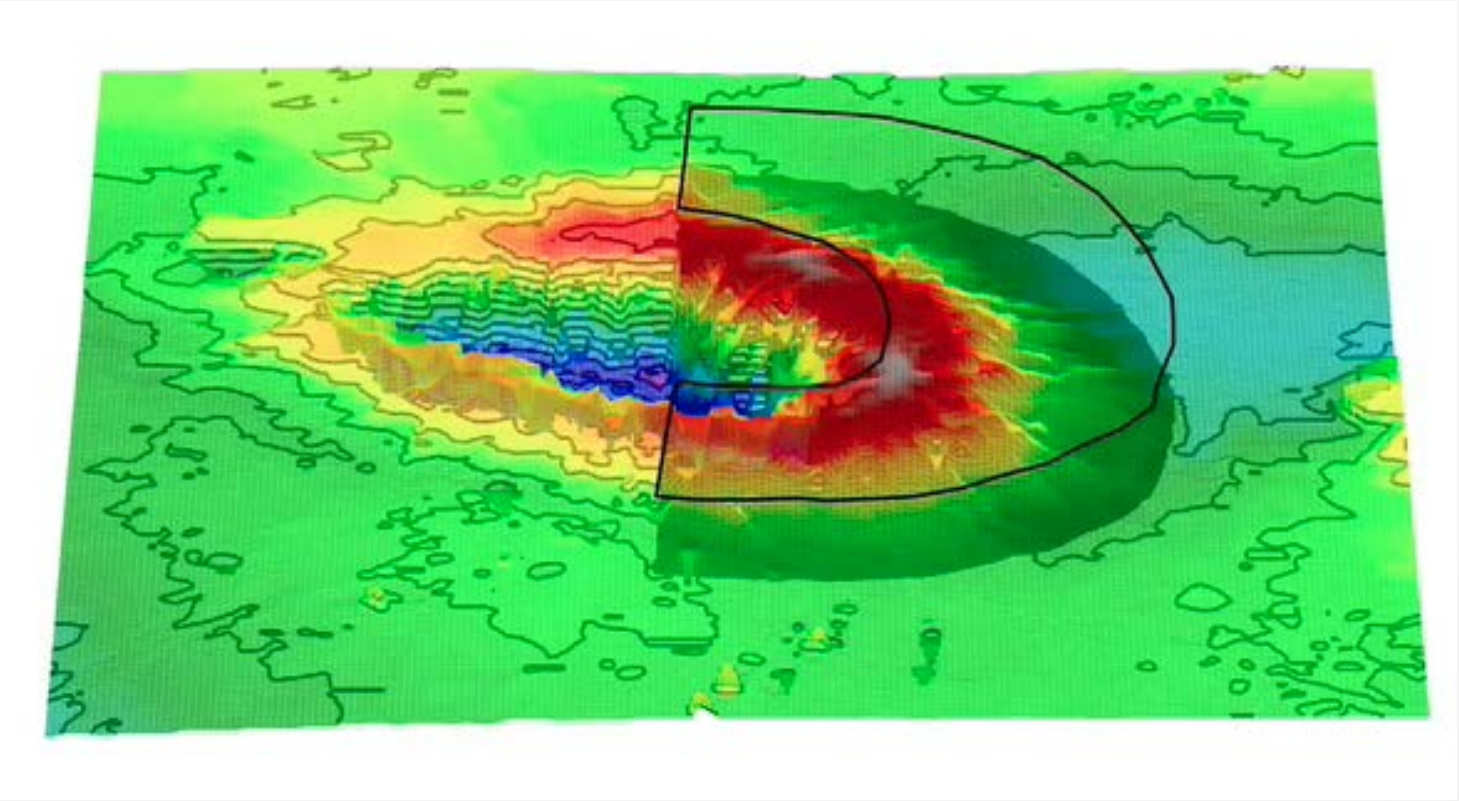
ORH UTF Habitats

Orange roughy spawning aggregations - acoustic survey on 'Volcano'



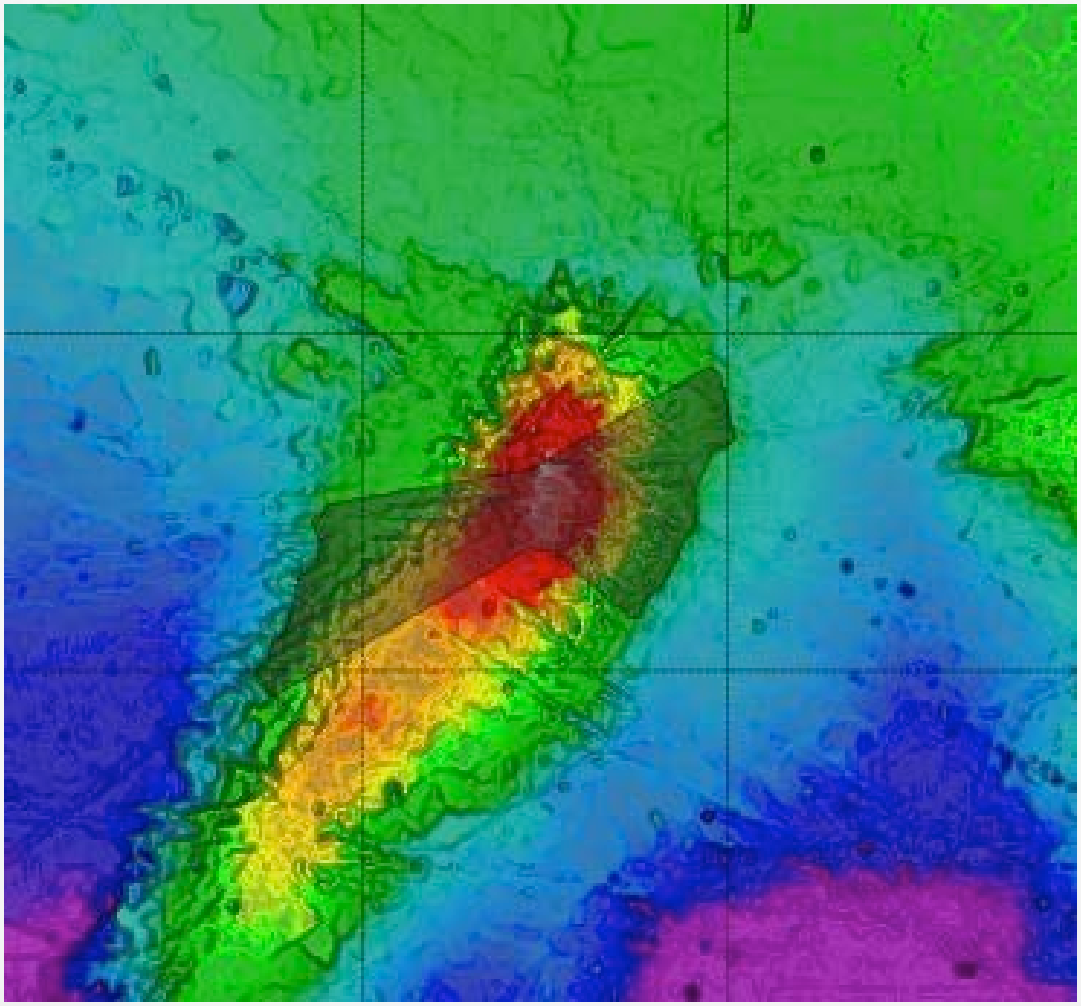
ORH UTF Habitats

Shaded area represents fishing grounds on 'Volcano'



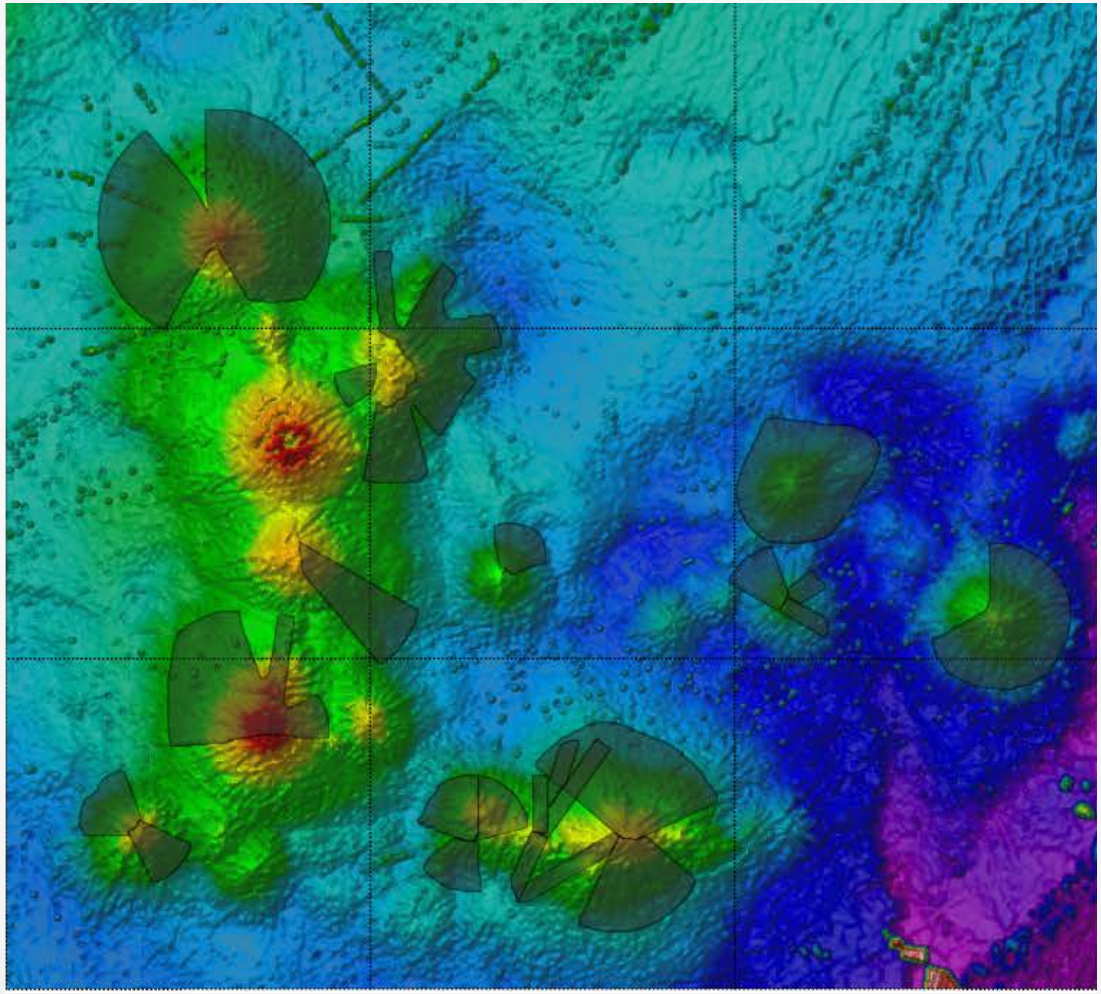
ORH UTF Habitats

Shaded areas represents fishing grounds on 'Mt Kiso'



ORH UTF Habitats

Shaded area represents fishing grounds on 'Andes'



Is there ongoing effective management?

Quota Management System

New Zealand's fisheries management centered on QMS since 1986

Quota is an asset that encourages stewardship

Based on:

- Total Allowable Catch
- Individual Transferable Quota

Fisheries Act

QMS administered through the Fisheries Act by Government (MPI)

Purpose of the Act is:

"To provide for the **utilisation** of fisheries resources while ensuring **sustainability**"

utilisation
asset
perpetuity
science
sustainability
incentives

Best Available Science

Management measures are based on the best available science.

Surveys & Stock Assessments

Carried out by independent scientists

Research Standard

All science must meet MPI Research & Science Information Standard before used to inform management

Public Peer Review

Working Groups provide public peer-review of the science. They evaluate:

- Relevant information and research
- Status of fisheries and stocks
- Stock projection models under different catch assumptions
- Do not make management recommendations

Partnerships

In 2006 DWG and MPI formed a formal collaborative partnership
Partnership with Department of Conservation in progress

Improved management through:

- Integrating best of public & private expertise
- Aligning strategic goals & operational plans
- Sharing resources
- Open & trust based relationships
- Enhancing management & commercial outcomes

collaboration
trust
efficiencies
open
aligned

World leading and unique

Compliance

Compliance is high
Enforcement is effective

Reporting & Balancing
All QMS catch is reported & balanced against ACE

Vessel Monitoring
Satellite monitoring on all vessels (VMS)
50% observer coverage across deep water fleet

Licensed Fish Receivers
Catch must be landed at designated ports and sold to Licensed Fish Receivers

Strict Reporting Requirements
Fishing location, catch, bycatch

Severe Penalties
Automatic quota & vessel forfeiture upon conviction, deemed values on over catch


THANK YOU
www.deepwatergroup.org