Report of the Environment Committee

Petition of Karli Thomas, on behalf of the Deep Sea Conservation Coalition and its member groups: Save deep sea corals—ban bottom trawling on seamounts

June 2022

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Petition of Karli Thomas, on behalf of the Deep Sea Conservation Coalition

Recommendation

The Environment Committee has considered the petition of Karli Thomas, on behalf of the Deep Sea Conservation Coalition (Save deep sea corals—ban bottom trawling on seamounts), and recommends that the House take note of its report.

About the petition and our process

The petition was presented to the House on 26 November 2020. It requests:

> That the House of Representatives pass legislation to ban bottom trawl fishing on seamounts and similar deep sea features and stop the issuing of permits for bottom trawling in international waters; and note that 52,443 people have signed online petitions to this effect.

The Deep Sea Conservation Coalition (DSCC) is an alliance of over 90 international organisations that promote the conservation of biodiversity on the high seas. It told us that, in New Zealand, it is collaborating with member organisations that are concerned about bottom trawl fishing. The organisations include Greenpeace Aotearoa, WWF-New Zealand, Forest and Bird, LegaSea, New Zealand Sport Fishing Council, Our Seas Our Future, and Environment and Conservation Organisations of Aotearoa New Zealand (ECO).

We considered written and oral submissions from:

- the Deep Sea Conservation Coalition (DSCC), the petitioner
- the Deepwater Group, a representative body for quota owners of New Zealand deepwater fisheries
- Te Papa Atawhai Department of Conservation and Tini a Tangaroa Fisheries New Zealand[1] (the government agencies), which both have marine management and protection responsibilities.

We note that the Deep Sea Conservation Coalition and the Deepwater Group disagree over a number of points raised by each other. Various parts of our report set out descriptions of what we heard in submissions, and our report should be read with that in mind.

Background information

Overview of seamounts and similar features

The petitioner described seamounts as “undersea mountains that introduce irregularities into the pelagic environment, such as hard substrates” and referred to definitions in the scientific literature of a seamount as “any geographically isolated topographic feature on the seafloor

[1] Tini a Tangaroa Fisheries New Zealand is a business unit within Manatū Ahu Matua Ministry for Primary Industries.

taller than 100 m, including ones whose summit regions may temporarily emerge above sea level, but not including features that are located on continental shelves or part of other major land masses".[2]

Government agencies told us that there is no universally-agreed definition for the term "seamount".[3] This was reflected in the submissions we received. Some define seamounts as rising 1,000 metres or more above the sea floor. Others suggest a wider definition where the rise is 100 metres or more above the sea floor, which would include seamount-like features such as hills and knolls. The agencies noted that research suggests the physical characteristics of smaller seamount-like features less than 1,000 metres above the seafloor affect biology in very similar ways to large seamounts greater than 1,000 metres. The agencies referred to seamounts and seamount-like structures collectively as underwater "features" in their submissions to us. A focus on a strict definition of a "seamount" may detract from the discussion about the nature of the organisms that are occurring on the different types of features and how bottom trawling affects those organisms. We note, however, that if a ban were to be pursued, consideration would need to be given to how to define what areas are protected.

Underwater features that project above the seafloor cause eddies and upwellings, bring nutrients from deeper waters, and trap and support high levels of plankton productivity. This creates conditions that support benthic communities (such as deepwater sponges and corals), byrozoans, and fish populations that are often highly diverse biologically.

The agencies told us that a full biodiversity inventory of New Zealand's underwater features has not been completed. However, available data shows that the features host taxa (groups of organisms) that are endemic to the region, such as protected cup corals and sponges. Seamounts in New Zealand waters are commonly inhabited by animals protected under the Wildlife Act 1953, including stony corals, black corals, gorgonian corals, and hydrocorals. In turn, corals can provide habitats for other species including fish. We heard that there are more than 1,300 indigenous coral species in New Zealand waters, 300 of which are protected.

The agencies told us that there are about 820 underwater features in New Zealand waters. We note that the data presented in submissions was the best available data at the time. We discuss later a project that is updating the database of underwater features. The agencies told us that the number of seamount-like features (of 100 to 1,000 metres elevation) identified through current research work underway exceeds that indicated by the existing data.[4]

The agencies indicated that some studies indicate a high level of endemism for features, but further research is needed to confirm this. Some recent research has shown previously-

[2] DSCC "Save deep sea corals - ban bottom trawling on seamounts". Evidence in support of the petition signed by 52,443 people, at page 3

[3] Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 6.

[4] Supplementary submission 3 from Department of Conservation and Fisheries New Zealand (15 February 2022), page 10.

undocumented high levels of biodiversity of corals caught as bycatch.[5] The main commercial fish species known to associate with features are orange roughy and oreos.

Bottom trawl fishing and its effect on underwater features

The agencies told us that bottom trawling is a common fishing method used in New Zealand fisheries.[6] Bottom trawling consists of a vessel towing a net along a seafloor, often using steel doors either side of the net to hold it open. Bottom trawl gear designed for fishing on underwater features are modified to include "rock-hopper" ground gear, which are discs or balls that are attached to the bottom of the net to enable it to roll over rough terrain that would otherwise snag conventional nets. The overall width of trawl doors varies from about 70 to 200 metres. During a bottom trawl, the gear can damage the seabed—the doors can dig into the seabed by 5–10 centimetres and the ground gear by 1–8 centimetres.

Deepwater fish caught by bottom trawling include hoki, squid, ling, orange roughy, silver warehou, and oreo. Some of the species are caught by other means as well (such as midwater trawling and bottom longlining), while some species are caught almost entirely by bottom trawling.

The agencies told us that the annual trawl footprint ranges from 1.3 percent to 2.4 percent of New Zealand's territorial sea and exclusive economic zone. We heard that 40 percent of the underwater features in the New Zealand exclusive economic zone were contacted by trawl gear before 2008.[7] We heard also that 11 percent of the territorial sea and exclusive economic zone is estimated to have been contacted by bottom trawling since 1989/90, which is 33 percent of the fishable area.[8]

The agencies told us that coral bycatch has been reported on 33 percent of fished seamounts. They said that, of surveyed seamounts within the exclusive economic zone, there is clear evidence that lack of corals and biogenic structures in some areas results directly from trawling damage due to past fishing activity, with trawl tracks clearly visible. They said that, conversely, there appear to be "large areas that support dense coral patches and other areas that are naturally devoid of corals".[9]

The agencies noted that bottom trawling can remove most of the animals living on the surface of the seabed in the trawl path, resulting in declines in species richness, diversity, cover, and abundance.[10] Sediment plumes can also affect animals in surrounding areas. Some benthic taxa on seamounts are not well adapted to disturbance, and recovery potential can be limited. Some corals can live for hundreds or thousands of years.[11] One study suggested that it can take over 20 years before signs of recovery are evident on an

5 Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), paras 17–18.

6 Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), paras 23–29.

7 Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 30.

8 Supplementary submission 3 from Department of Conservation and Fisheries New Zealand (15 February 2022), page 15.

9 Supplementary submission 3 from Department of Conservation and Fisheries New Zealand (15 February 2022), page 11.

10 Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 36.

11 Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), paras 43.

underwater feature. We heard that recovery can be expected to take decades or centuries after fishing has ceased, if it occurs at all.

Current management approaches in New Zealand waters

The agencies noted that, in 2001, seamount closures to all trawling were implemented in 17 areas, covering about 106,000 square kilometres, approximately 2.6 percent of New Zealand's territorial sea and exclusive economic zone. We heard that this was to protect a representative range of biodiversity and habitats on seamounts.

In 2007, 17 benthic protection areas (BPAs) were established, covering about 1.13 million square kilometres or 27.4 percent of New Zealand's territorial sea and exclusive economic zone. BPAs were proposed by the fishing industry and we heard that they were based on four criteria: they were large, relatively unfished, have simple boundaries, and were broadly representative of the marine environment.[12] About 82 percent of the BPAs are deeper than the depths at which most protected corals and gorgonians vulnerable to the impacts of bottom trawling are found.[13]

The agencies told us that, together, these closures represent about 30 percent of New Zealand waters, and 13 percent of the fishable area (areas shallower than 1,600 metres).

The purpose of the Fisheries Act 1996 is to provide for the utilisation of fisheries while ensuring sustainability. Sustainability is defined as maintaining the potential of fisheries resources to meet the reasonable foreseeable needs of future generations, and avoiding, remedying, or mitigating any adverse effects on the marine environment. Utilisation is defined to include conserving, using, enhancing, and developing fisheries. The Act enables the Minister for Oceans and Fisheries to set or vary any sustainability measure through regulations, such as setting catch limits of the areas from which any fish may be taken or the fishing methods to be used. Environmental principles are set out in section 9 and information principles in section 10.

The Wildlife Act 1953 includes several benthic species as protected species. These include black corals, gorgonian corals, stony corals, and hydrocorals. The Act allows accidental or incidental killing or injuring of protected species during fishing, but the event must be recorded and reported to the Department of Conservation.

Current management approaches in the high seas

New Zealand is required to act in accordance with its United Nations obligations relating to the law of the sea. Regimes for fishing on the high seas are based on cooperation between states, usually through regional fisheries management organisations (RFMOs). New Zealand is a member of a number of RFMOs, but the agencies noted that, for the purposes of bottom trawling, the most relevant is the South Pacific Regional Fisheries Management Organisation (SPRFMO).[14] New Zealand implements its commitments to RFMOs mainly through the Fisheries Act.

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[12] Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 46.

[13] Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 47.

[14] The SPRFMO was established by the Convention on the Conservation and Management of the High Seas Fisheries Resources in the South Pacific Ocean.

The agencies said that the current management measures under the SPRFMO allow trawling in 12 percent of the fishable area within its evaluated area. Proposals to fish in the bottom trawling management areas are subject to impact assessments.[15] Fishing proposals that proceed must have an observer.

The agencies told us that, each year, between 9 and 11 New Zealand vessels fish in the SPRFMO area, using bottom longline and trawl gear. About 4 to 6 vessels use bottom trawling, accounting for around $5 million to $10 million in catch, primarily orange roughy and alfonsinos.

Comments from the petitioner, the Deep Sea Conservation Coalition

The petitioner explained the petition as follows:[16]

> We call on the New Zealand Government to protect all seamounts in Aotearoa New Zealand's exclusive economic zone (EEZ), and to stop issuing high seas permits to New Zealand bottom trawl vessels, which almost exclusively target seamounts and similar deep-sea features when they fish in international waters of the South Pacific and Tasman Sea regulated by the South Pacific Regional Fisheries Management Organisation (SPRFMO).

The petition contains two related requests:

- a ban on bottom trawl fishing on seamounts and similar deep sea features in New Zealand waters
- a stop to the issuing of permits for bottom-trawling in international waters.

Seamounts and the reasons to protect them

The petitioner said that seamounts are widely defined as "undersea mountains" that rise more than 100 metres above the seafloor, the features of which make them biodiversity "hotspots" in the ocean.[17] The petitioner acknowledged that some people support a narrower definition that requires a higher rise above the seafloor. The petitioner considers that a 100 metre height better reflects biological considerations.

Seamounts are important in providing the conditions for corals to thrive, which in turn provide habitats for other species. The ecosystems associated with seamounts and other similar features such as hydrothermal vents are frequently described as "vulnerable marine ecosystems" because of the diverse and unique species often associated with them. We heard many of these species, such as corals and sponges, are easily damaged by fishing gear due to their fragility. The petitioner said that a lot is still to be learnt about these ecosystems. For example, they noted that in the past three years in New Zealand, scientists identified 135 undescribed taxa new to science from fisheries bycatch. They also told us that

[15] Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 63.

[16] Supplementary submission 3 from the DSCC (July 2021), page 2.

[17] Supplementary submission 3 from the DSCC (July 2021), page 6.

observations of seamounts in New Zealand suggest that there are vulnerable marine ecosystems attached to them.

The petitioner told us that that there are 800 known seamounts in New Zealand's exclusive economic zone. We heard that New Zealand's seamounts are home to some globally-unique cold water corals. Deep sea corals are slow growing, but show longevity, with some being hundreds to thousands of years old. The petitioner noted that most corals are protected under the Wildlife Act.

The petitioner told us that international assessments concluded that, of marine-based human activities, bottom-trawling poses one of the highest environmental threats to the ocean. The petitioner said that the effects of bottom trawling are well understood—they called it an "incredibly destructive way of fishing". We heard that as few as ten bottom trawls can reduce deep-sea coral forests to "rubble", and that recovery can take decades to centuries.[18] The petitioner said that 14 tonnes of coral was caught in trawl nets during the 2018/19 year. They said that figure only represents what was caught, and put forward estimates that in 2018/19, between 1,515 tonnes and 4,769 tonnes of coral on the seabed was destroyed by trawl fleet.[19]

The petitioner said that destruction to benthic environments affects the ocean's role as a carbon store, and therefore potentially worsens climate change.[20] The petitioner told us that bottom trawling methods use fuel inefficiently, and contribute to carbon emissions. We heard that the annual carbon cost of bottom trawling around the world is higher than pre-pandemic annual global aviation emissions.

The petitioner said that in New Zealand's exclusive economic zone, 21 percent of the fishable area was bottom trawled between 2007 and 2018, and that in the 2017/18 season, 455 square kilometres was trawled for the first time.[21]

Adequacy of existing protections within the exclusive economic zone

The petitioner said that, depending on the target fish and seasons, bottom trawling within the exclusive economic zone can target seamount structures and the surrounding seafloor. In some years, they said, up to 50 percent of bottom trawling for orange roughy was caught off seamounts, knolls, and hills.

The petitioner considers that the existing protections for seamounts in New Zealand waters are inadequate.[22] They said earlier efforts had resulted in the protection of 19 seamounts over 17 seamount areas in 2001. A draft Seamount Management Strategy was developed that envisaged further protections. However, this had not proceeded. The petitioner told us that, later on in 2007, benthic protection areas (BPAs) were established by the Government in collaboration with the fishing industry. BPAs led to 17 more areas being closed to bottom trawling. However, the petitioner said BPAs were ineffective, as 72 percent of the area covered by BPAs were in places that trawlers could not reach anyway. Further, the petitioner

[18] Supplementary submission 3 from the DSCC (July 2021), pages 13-14.

[19] Supplementary submission 3 from the DSCC (July 2021), pages 15-16.

[20] Supplementary submission 3 from the DSCC (July 2021), page 22.

[21] Supplementary submission 3 from the DSCC (July 2021), page 15.

[22] Supplementary submission 3 from the DSCC (July 2021), pages 24-25.

said that BPA areas lack a scientific basis for their biodiversity value—they suggested that if the BPA areas were instead chosen at random, they would be statistically more likely to result in better biodiversity protection.

Most corals in New Zealand waters are protected under the Wildlife Act. However, if a coral is damaged during fishing, the only consequence is that it must be reported. The petitioner considers that the level of self-reporting by vessels that do not have on-board observers is poor. They noted that New Zealand trawlers in the exclusive economic zone had observer coverage of about 20 percent. Observer rates are as low as 15 percent in some offshore trawl fisheries, and only 4 percent of inshore trawlers had observers—compared with 100 percent coverage on the high seas.[23]

Bottom trawling on the high seas in the South Pacific

The petitioner said that New Zealand is the only country that is bottom trawling every year in the South Pacific. They told us that in other oceans around the world, little or no bottom trawling occurs on seamounts in the high seas, as some regional fisheries management organisations (RFMOs) protect seamounts from fishing. The petitioner noted an example of the North Atlantic Regional Fisheries Management Organization, which completed closing all seamounts to bottom trawling in 2019.

The petitioner considers that the South Pacific Regional Fisheries Management Organisation (SPRFMO) does not have sufficient protections for seamounts.[24] They noted that it offered some protections, including 100 percent observer coverage on vessels, and “move-on rules” that require vessels to move a nautical mile away from an area if a certain amount of vulnerable indicator species are observed in catches. However, the petitioner said that none of the seamounts in fishable depths in the South Pacific high seas have been permanently closed to fishing, and there is no provision to do so. The petitioner considers that efforts to strengthen the protections have been prevented by New Zealand, and suggested that New Zealand’s tolerance for damage to the benthic environment is too high.

Agencies told us that between 9 and 11 New Zealand vessels fish annually in the SPRFMO using bottom longline and trawl gear, catching around 1,800 tonnes each year. Four to six vessels bottom trawl, catching largely orange roughy and alfonsino worth between $5 million and $10 million annually.[25]

Economic impacts of a ban

The petitioner suggested that the economic impact of a ban on bottom trawling on seamounts and similar underwater features would be tolerable. They noted that around 95 percent of the deepwater catch is exported.[26] They consider that a ban would affect about 1.3 percent of the total tonnage of seafood exports, which they said is worth around 2.1 percent of the total seafood export value.

[23] Supplementary submission 3 from the DSCC (July 2021), pages 17-18.

[24] Supplementary submission 3 from the DSCC (July 2021), pages 19-20, and 29-30.

[25] Submission from Department of Conservation and Fisheries New Zealand (24 June 2021), para 59.

[26] Supplementary submission 3 from the DSCC (July 2021), pages 35-36.

The petitioner said that some species' populations, such as orange roughy, have been significantly affected by bottom trawling. They consider that a ban on seamount bottom trawling could lead to population recovery.

How the petition request could be implemented under existing legislation

The petitioner said that their requests could be carried out under existing legislation.[27] They said that the Minister could implement a ban on bottom trawling on seamounts and similar features in the exclusive economic zone using existing provisions under the Fisheries Act 1996. As for stopping bottom trawling in the high seas by New Zealand vessels, the petitioner said that the Government could stop issuing high seas fishing permits for trawl vessels fishing on seamounts.

As we discuss later in our report, the petitioner also raised concerns about whether recent permitting decisions have been correctly made by the responsible agency.

The petitioner does not support a "freeze" on the bottom trawl footprint, which would allow bottom trawling to continue in areas it currently occurs in. The petitioner said this would "lock in" the damage that is being done to biodiversity hotspots that have been targeted for decades.

The petitioner said that action cannot be delayed until there is "perfect data", and indicated that a precautionary approach needs to be taken. They consider that sufficient evidence exists about important biodiversity on seamounts and the adverse impacts of bottom trawling to support action being taken.

Comments from the Deepwater Group

The Deepwater Group is a representative body for owners of 92 percent of deepwater fisheries quota. The Group states that "the New Zealand deepwater fisheries sector involves more than 50 seafood companies, which between them operate more than 100 commercial vessels and collectively employ around 6,000 people".[28]

The Deepwater Group told us that the management of New Zealand's exclusive economic zone, in terms of regulation and industry practice, is comprehensive and recognised internationally as one of the best in the world.[29] It said that bottom trawling does not provide an existential threat to coral populations or benthic diversity.

Deepwater Group's definition of seamounts

The Deepwater Group disagreed with the petitioner's definition of seamounts.[30] It told us the definition was expansive, and it believed it conflated seamounts with other underwater features such as knolls, hills, and other slope features. It said that seamounts, knolls, and hills differ in their scale, habitats, and size, and their abilities to create micro-niches by

[27] Supplementary submission 3 from the DSCC (July 2021), page 40.

[28] Deepwater Group website (accessed May 2022): https://deepwatergroup.org/about/who-we-are/

[29] Submission from Deepwater Group (September 2021), page 12

[30] Submission from Deepwater Group (September 2021), page 13

influencing oceanographic conditions. On its analysis of data, it said that a seamount covers 120 times more area than a hill, on average.

The Deepwater Group preferred to define seamounts using the definition for underwater typographical features used by the International Oceanographic Commission, the International Hydrographic Organisation, and the New Zealand Geographic Board. This is:

> A distinct generally equidimensional elevation greater than 1,000 meters above the surrounding relief as measured from the deepest isobath that surrounds most of the feature.
>
> An elevation rising generally more than 1,000 meters and of limited extent across the summit.

The Deepwater Group made the following points based on its view that seamounts only included features over 1,000 metres in elevation, rather than 100 metres:

- Overall, 91 percent of New Zealand's exclusive economic zone has never been trawled.
- Each year, about 1.1 percent of the exclusive economic zone is subject to bottom-trawling—most of the grounds have been fished for decades.
- There are 142 known[31] seamounts in New Zealand's exclusive economic zone, and of those, 127 are either closed to trawling or have never been trawled.
- Over the past decade, bottom trawling has occurred on 9 seamounts in New Zealand's exclusive economic zone.
- About 33 percent of seamounts that have been fished are known to support coral.
- In addition to seamounts, 561 known smaller underwater topographical features—such as hills and knolls—are also managed, with 93 of them being closed to bottom trawling.

We suggested to the group that its definition and considerations tended to focus on geoscience factors at the expense of biological factors, and did not take into account biodiversity values. The group responded that it has supported the measures to protect biodiversity, and was a proponent of closing 30 percent of the exclusive economic zone to fishing for this reason. It said that more work can be done, and is open to discussing this.

Effects of bottom trawling on seamounts

The Deepwater Group considers that fishing does not pose a great threat to the biogenic habitats on seamounts within the exclusive economic zone. It told us that seamounts in New Zealand vary greatly in their type and biodiversity, and their coral-supporting capacity.[32] The group noted that corals are found across habitat types, not just on seamounts.

[31] The Group noted that the figures are subject to review, and that NIWA has provided a preliminary report that there are 152 known seamounts of or above 1,000 metres in elevation.

[32] Submission from Deepwater Group (September 2021), page 19.

The Deepwater Group questioned the view that there is a high level of endemism of coral species to New Zealand waters. It considers that there is insufficient data to make such a conclusion.[33]

The group said that, based on modelling, it considers the overlap of suitable coral habitats and areas that are bottom trawled to be less than one percent. It reiterated its call for the Government to fund research to establish the locations, extent, and nature of deepwater corals in New Zealand's exclusive economic zone.

The Deepwater Group does not accept the petitioner's analysis about the amount of coral caught in trawl nets. It said that the fishing-related risk to corals within the exclusive economic zone is "very low".[34] It told us that, based on observer records, the estimated amount of coral captured annually by bottom trawling off seamounts, knolls, and hills in the exclusive economic zone was 572 kilograms—it said this amount "could fit into the back of a ute".[35] It considers that corals and other benthic organisms can be protected through other marine protection and spatial management tools, such as Benthic Protection Areas (BPAs) and Closed Seamount Areas (CSAs). It said these closed areas represent 31 percent of the exclusive economic zone, which is one of the highest proportions of marine protection in the world.[36]

The Deepwater Group said that more research is needed to establish the propensity or "catchability" of corals when in the path of trawl gear. It said that current estimates put forward by the petitioner cannot be relied on due to the uncertainty of estimates.[37] It acknowledged that some coral is captured, but considers that fishing methods are improving through the use of developing technology, better equipment, and the experience of skippers.[38]

The Deepwater Group said that bottom trawling is important for food production. It estimates that 80 percent of wild seafood harvested in New Zealand is from bottom trawling. About 95 percent of the deepwater fishery catch is exported. It said that the Fisheries Act implicitly recognises that fishing activities will cause impacts, and that the responsibility is to manage those impacts if they create adverse effects.

The Deepwater Group told us that:

> DWG strongly disagrees with the need to ban bottom trawling on seamounts, not only because of a low risk to corals and seabed habitats as a result of careful and balanced management but doing so would be disproportional to the balance that is both intended and required by the Fisheries Act 1996.

The Deepwater Group said it is committed to further improving the management of bottom trawling and its impacts on marine benthic habitats, where it may be required. It considers

33 Submission from Deepwater Group (September 2021), page 21.

34 Submission from Deepwater Group (September 2021), page 31.

35 Submission from Deepwater Group (September 2021), page 35.

36 Submission from Deepwater Group (September 2021), page 57.

37 Submission from Deepwater Group (September 2021), page 39.

38 Submission from Deepwater Group (September 2021), page 42.

that as only about 10 percent of the exclusive economic zone is fished, both environmental considerations and food production needs can be accommodated together.

Matters discussed with government agencies

The submissions from the Deep Sea Conservation Coalition and the Deepwater Group demonstrated two very different perspectives on the effects of bottom trawling on underwater features. This included differing presentations of some statistics. We discussed different aspects with the agencies—Te Papa Atawhai Department of Conservation and Tini a Tangaroa Fisheries New Zealand—and sought information from them about what actions are being taken to address the concerns raised.

Additional protections for seamounts?

The agencies told us that:[39]

> DOC and MPI are of the view that the impacts of bottom trawling on protected species and other seafloor taxa are of sufficient environmental concern to warrant consideration of additional management.

We asked the agencies whether current spatial management—such as seamount closures and BPAs—provides sufficient protection from the effects of bottom trawling. We heard that new spatial management planning software in development could help design better spatial management measures, but work was at an early stage. The agencies said that spatial management of bottom trawling could be more effective through a better design and planning process to ensure that spatial measures avoid, remedy, or mitigate the impacts of bottom trawling.[40] A project to develop a spatial decision support tool for managing the impacts of bottom trawling was supported by a multi-stakeholder Benthic Science Working Group.

We heard that agencies have also commissioned another project that will:

- update the database of all known seamounts and seamount-like features exceeding 100 metres above the seafloor
- develop geographic information system (GIS) mapping layers delineating all known seamounts and seamount-like features
- estimate the extent and intensity of trawl effort on or near the seafloor of seamounts and seamount-like features for the years between 1989/90 and 2019/20.

At the time of our hearings, we were informed that agencies were making progress in establishing a stakeholder forum to discuss and make recommendations on potential spatial management measures to avoid, remedy, or mitigate adverse effects of bottom trawling on the benthic environment. At that time, terms of reference were being developed. However, at our hearing in 2021, the petitioner expressed concern that the draft terms of reference for the stakeholder forum were too narrow. The draft terms of reference aimed for initial

[39] Supplementary submission 3 from the Department of Conservation and Fisheries New Zealand (15 February 2022), page 1.

[40] Supplementary submission 3 from the Department of Conservation and Fisheries New Zealand (15 February 2022), page 6.

recommendations by the forum to be available in mid-2022. The agencies told us that, subject to Ministerial decisions, the recommendations could form part of a public consultation process on potential management measures later in 2022.

The agencies also noted that the Government plans to reform conservation laws, including the Wildlife Act 1953. We heard that this could include addressing coral bycatch. The agencies said that, given the preliminary stage of that process, they could not provide more definitive answers as to what solutions might be considered and adopted.

The agencies said that bottom trawling remains a commonly used method of fishing globally, although they acknowledged that some countries are taking steps to ban bottom trawling on seamounts in their jurisdictions. For example, Chile has banned bottom trawling in 98 percent of its exclusive economic zone.

Issuing of permits for bottom trawling on the high seas

The petitioner raised concerns with us about the issuing of high seas fishing permits to vessels that have connections to convictions for illegal fishing. As a parliamentary committee, we are mindful that it is not our place to make judgments about criminal liability in individual cases—that is the responsibility of the courts. However, the general policy for issuing fishing permits, and the relevance that prior convictions should play in those assessments, is a relevant consideration under the Fisheries Act.

The agencies said that a number of considerations are taken into account when determining applications for high seas fishing permits. We heard that the roll-out of electronic reporting has meant that more information about fishing vessels' activities is collected—such as their positions at sea. That has meant that it has been easier to identify when illegal fishing has occurred, and has resulted in some convictions.

The agencies told us that Manatū Ahu Matua Ministry for Primary Industries is currently considering potential amendments to the Fisheries Act. The aim is to strengthen controls relating to the issuance of high seas fishing permits to better meet international obligations to control fishing activities on the high seas. We heard that feedback on consultation from the sector had been supportive, and the ministry is assessing feedback and concluding its regulatory impact analysis. We heard that this work will inform advice to the Minister in the coming months.[41]

Our response to the petition

We thank the petitioner for raising their concerns with us through the petition, and we acknowledge the public support the petition received. We also thank submitters for their contributions to our understanding of the issues raised by the petition.

The submissions of the Deep Sea Conservation Coalition and the Deepwater Group set out very differing views, and in some aspects were diametrically opposite to each other. Submissions from government agencies confirmed that the issue of bottom trawling is a

[41] Supplementary submission 3 from the Department of Conservation and Fisheries New Zealand (15 February 2022), page 20.

complex matter. Government agencies said that there is a gap in the information and data available to properly inform decision-making.

We acknowledge the work that is being done by government agencies and the sector as a whole to better understand seamounts and seamount-like features. Through this report, the majority of us do not claim to have reached a conclusion as to the scientific necessity and economic suitability of a ban on bottom trawling on seamount and seamount-like features. However, we encourage parties to work collaboratively and without delay to address the concerns raised by the petition. We would like to see progress on the issue as soon as practicable.

We note the Government has established the stakeholder forum discussed in agencies' submissions to us. We understand that the stakeholder forum is in progress, and intends to make recommendations on potential spatial management measures to avoid, remedy, or mitigate adverse effects of bottom trawling on the benthic environment. We also note the improvements in technology that can lead to better fishing practices and better monitoring and compliance of fishing activities.

We encourage parties to continue their work and promptly report on this. We look forward to seeing the progress of this work.

Green Party of Aotearoa New Zealand differing view

The Green Party believes Government needs to take urgent action to protect seamounts, deep water corals, and other vulnerable and biological diverse marine ecosystems in our Exclusive Economic Zone (EEZ) and on the South Pacific high seas by banning bottom trawling. There is no certainty that the benthic impacts stakeholder working group established by Government to consider spatial management tools will act promptly or adequately, given the months that it took to finalise its terms of reference.

Aotearoa New Zealand is known as a biodiversity hotspot for many cold water corals, and some are only found in our waters. Individual seamounts can have their own unique coral assemblage, some of them centuries old. These slow growing and fragile corals are like the kauri forests of the oceans and deserve equivalent recognition and protection.

Commercial fishers target seamounts because of the aggregations of species such as oreo, cardinal fish, and orange roughy, including spawning fish, found there. In some years up to 50 percent of the commercial orange roughy catch has been taken from seamounts, including knolls and hills.

Bottom trawling can reduce living corals, benthic species, and habitats on seamounts to rubble. Fisheries observers recorded 29 different species of coral being caught as bycatch in trawl nets within New Zealand's EEZ for the 2018/19 fishing year and 8.88 tonnes of coral being dragged up in trawl nets. The Deep Sea Conservation Coalition calculated that this meant an estimated 1,515 to 4,679 tonnes of coral on the seabed was destroyed. These impacts are extensive and long-lasting.

A ban on bottom trawling on seamounts, deep sea corals, and similar underwater features in our EEZ would be consistent with the 2006 United Nations Resolution 61/105, which calls on States, "to take action immediately… to protect vulnerable marine ecosystems… from

destructive fishing practices". It would help meet our international responsibilities under the United Nations Convention on the Law of the Sea by implementing articles which require States to protect or preserve rare or fragile ecosystems and the habitat of depleted, threatened or endangered species.

It would recognise the severity of the global biodiversity crisis, the unique assemblages of life on individual seamounts, and the inadequacy of current protections which leave 48 percent of seamounts and 82 percent of seamounts, hills and knolls open to damage from heavy bottom trawling gear.

Closing seamounts and similar features such as knolls and hills to bottom trawling should help with the recovery of overfished stocks such as black cardinalfish and the slow growing orange roughy which have been fished to below their "soft limit". It would recognise the inadequacy of Benthic Protection Areas (BPAs) as a marine protection tool because there was no scientific basis for their establishment in terms of biodiversity values, they have limited overlap with seamounts, and 72 percent of BPAs are in areas that are too deep to fish because they are in water deeper than two kilometres. Trawlers generally do not fish at depths greater than 1600 metres.

Protecting seamounts would also help compensate for the fact that no marine protected areas have been established in our EEZ for more than 20 years.

Protecting seamounts and similar features would help limit an ever increasing area of seabed being damaged by the heavy nets of bottom trawlers as the fishing industry targets new areas and increases its benthic "footprint". Fisheries NZ reported that in the 2017/18 fishing season for example, 485 square kilometres within Aotearoa New Zealand's EEZ was trawled for the first time; and in the 10 years from 2009 to 2019, some 3,280 square kilometres, an area three times the size of Tāmaki Makaurau/Auckland, was bottom trawled for the first time.[42]

A bottom trawling ban would see Aotearoa New Zealand follow the lead of other countries which have protected seamounts and other vulnerable marine ecosystems. Palau has banned all bottom trawling in its EEZ; Chile has banned it on all 117 seamounts within its waters; the European Union has closed seamounts in the Spanish and Portuguese EEZs to bottom trawling and in European Union waters below a depth of 600 metres; the North Atlantic Fisheries Organisation has closed its last remaining seamount fishery; and the Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR) has banned all bottom trawling in high seas waters covered by the CCAMLR Convention.

The Government does not need to change the law to protect seamounts and similar features in the EEZ. The Minister for Oceans and Fisheries could use section 11 of the Fisheries Act to set a sustainability measure and make regulations to prohibit bottom trawling as a fishing method on them.

The Government should also stop issuing permits for New Zealand flagged commercial fishing vessels to bottom trawl on the high seas. New Zealand is the only country with commercial fishing vessels which still bottom trawl on sea mounts in the South Pacific.

[42] "Save deep sea corals ban bottom trawling on seamounts" Evidence of Deep Sea Conservation Coalition.

According to the Deep Sea Conservation Coalition, the New Zealand bottom trawl fishery for orange roughy in the South Pacific has had the “highest bycatch of deep-water Vulnerable Marine Ecosystem indicator species reported in high seas fisheries worldwide” over the past 12 years. Aotearoa New Zealand has a responsibility to protect deep water corals, and end the ongoing damage to seamounts in the South Pacific. Not issuing these high seas permits would help do that.

Appendix

Committee procedure

The petition was referred to us on 9 December 2020 by the Petitions Committee. We met between 11 February 2021 and 2 June 2022 to consider it. We considered written and oral submissions from:

- Deep Sea Conservation Coalition (the petitioner)
- Deepwater Group
- Te Papa Atawhai Department of Conservation and Tini a Tangaroa Fisheries New Zealand (part of Manatū Ahu Matua Ministry for Primary Industries).

Committee members

Hon Eugenie Sage (Chairperson)
Rachel Brooking
Tāmati Coffey
Simon Court
Anahila Kanongata'a-Suisuiki
Hon Scott Simpson
Stuart Smith
Lemauga Lydia Sosene (from 4 May 2022)
Tangi Utikere (until 4 May 2022)
Angie Warren-Clark

Evidence received

The documents we received as evidence in relation to this petition are available on the Parliament website, www.parliament.nz.