SPRFMO
South Pacific Regional Fisheries Management Organisation

7th MEETING OF THE SCIENTIFIC COMMITTEE

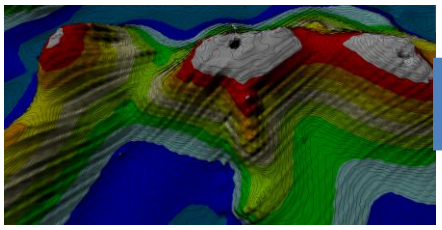
La Havana, Cuba, 7 to 12 October 2019

SC7-Obs01

High Seas Fisheries Group Information Paper to the SPRFMO SC

HSFG

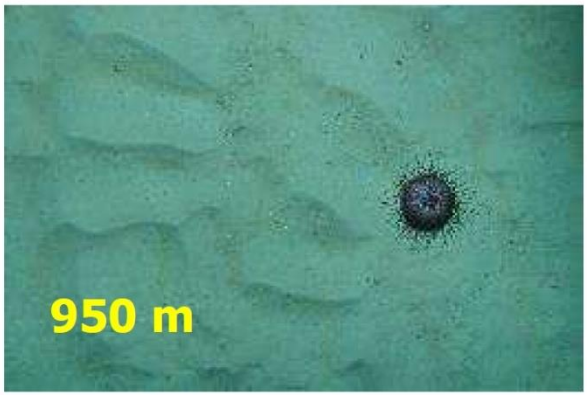
PO Box 3797, Wellington 6140, New Zealand
P: +64 4 499 9889 – F: +64 4 473 9579 – E: secretariat@sprfmo.int
www.sprfmo.int

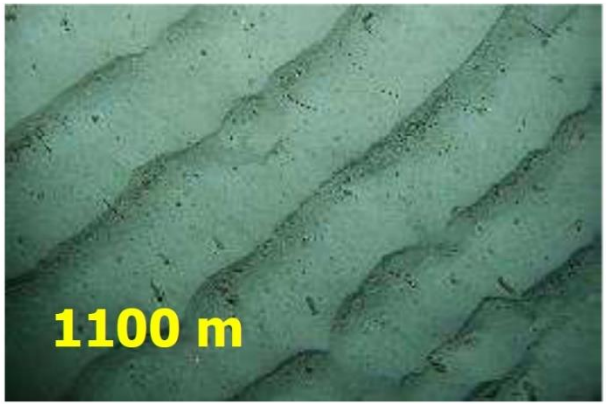


High Seas Fisheries Group Incorporated

Information paper for SPRFMO Scientific Committee - Cuba 2019

Seabed Images also recorded during the trip TAN1402.





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1. Concerns around terminology

We are deeply concerned that the rapid changes in ocean governance is dictating how fisheries policy and law is formulated and applied through RFMOs.

We are facing a barrage of poorly defined terms such as “ecosystem based management”, “VMEs”; “SAIs” and others that have been manipulated by lobbyists and flag states to be hyper-precautionary and to assume effects were significant/adverse if there is no data, minimal data, or if it could be inferred that the fishery lacking data resembled another fishery where there was some data. The consequence of the vigorous application of these terms is to limit or preclude sustainable access to fisheries by HSFG members. The HSFG has commented previously on this hyper precautionary approach which continues to be reflected in some of the papers that are being considered at this SC. All science is subject to interpretation and can be conducted and evaluated to achieve any desired result.

By way of example the HSFG introduced a paper in 2010 on spatial management on the high seas in the SPRFMO area which has been utilised to regulate access, but at the same time access was made more onerous through the inappropriate application of move on rules.

The HSFG have contributed to the science and management of the high seas managed by SPRFMO for many years through proactive involvement in Scientific Committee and Commission Meetings, and through its many papers which are publicly available on the SPRFMO website. We fully support the long-term conservation and sustainable use of fisheries resources within the SPRFMO area and note that this is embedded into the language of the SPRFMO Convention.

Our Fisheries Act 1996 requires a decision maker to take into account "best available information" when imposing conditions on our High Seas permits. These conditions are normally formulated after input from the Scientific Committee. Sadly, we have come to the conclusion that the Scientific Committee has been provided information by NZ officials that has been groomed to reflect political rather than scientific outcomes and cannot be regarded as "best available information".

As an industry we have fished across all of the SPRFMO area (Fig 1) between Australia and South America for the past 30 + years, carrying out precision trawling which is a highly skilled operation that targets a particular species. We have been driven to the conclusion that much of the information that we have provided to our officials has not been effectively considered, and other material information has been ignored by New Zealand (NZ) government scientists. This has resulted in further limitation of access.

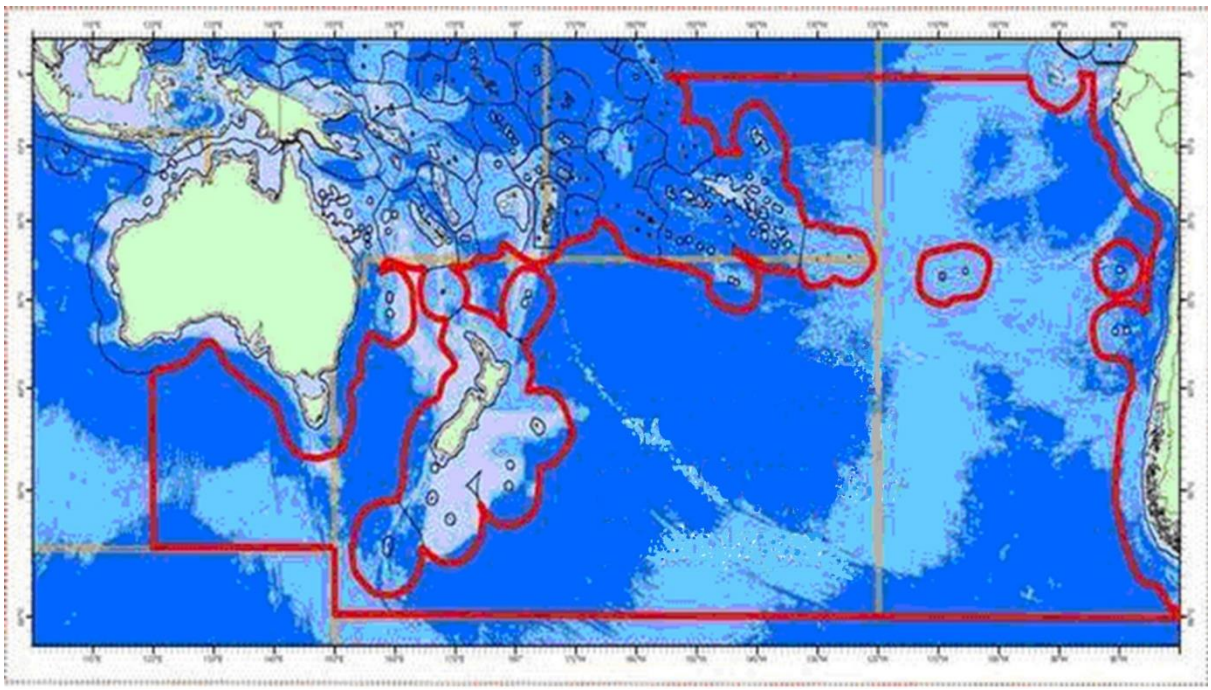


Figure 1 SPRFMO covers roughly 49,000,000 Km²

There are clear historical records of previous NZ fishing activity, and we note that extensive fishing was also conducted by various Contracting Party Research Vessels in the late 1990s. (Fig. 2) HSFG have long argued that this data should have been used and to our knowledge, this information has not formed part of the data on which decisions are made. We would like to see this change.

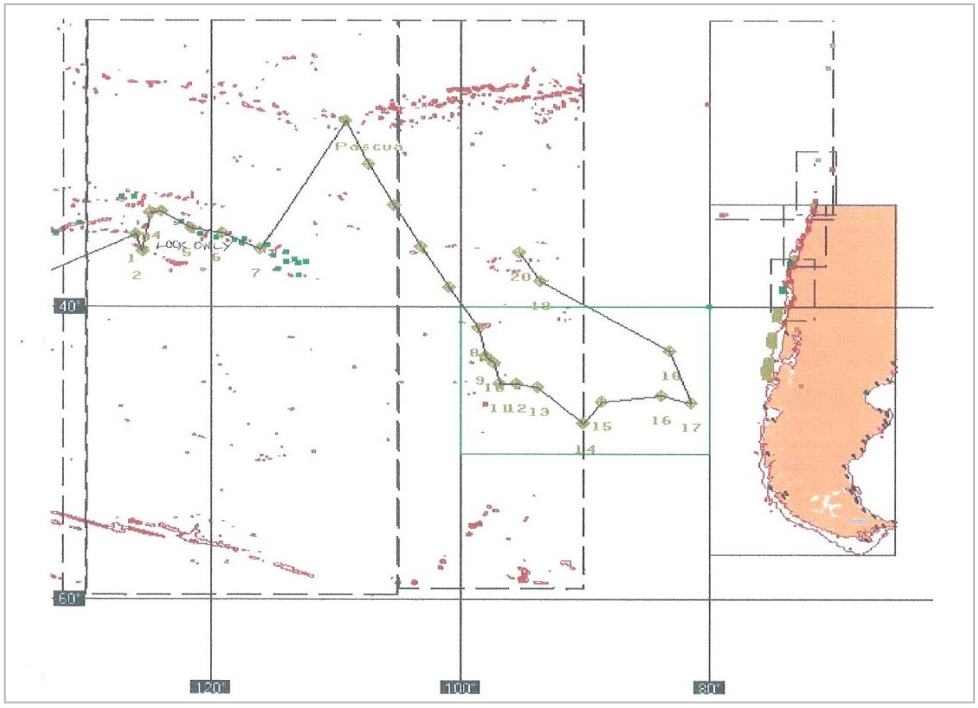
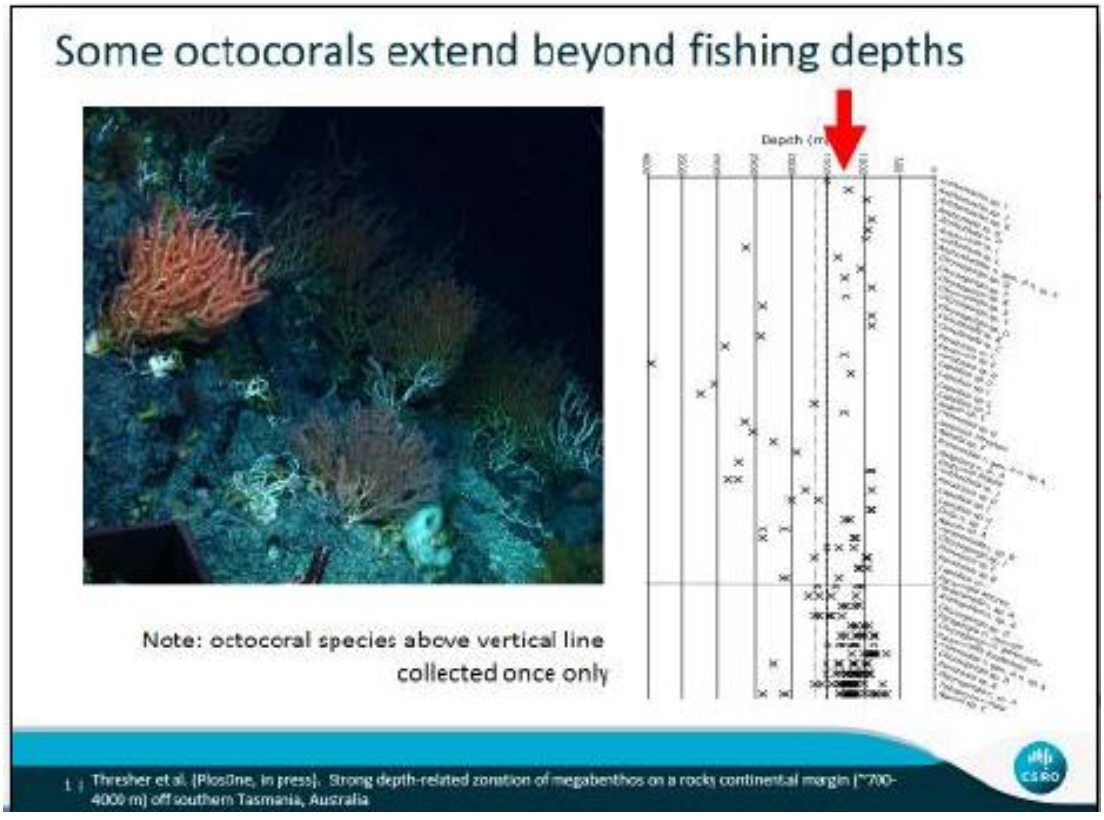


Figure 2 – The area above has been fished by many nations over decades , there are within this area many hundreds of thousand Km² of features that have been fished . New Zealand and SPRFMO ignored this information in favour of the 2002 – 2006 footprint . We ask SC to carefully consider with this huge area closed totally, is this not 100% protection?

The original footprint dictating the open and closed areas was determined by an arbitrary management decision made without reference to then available best available information, namely the information held by our members. We are disappointed that our decades of knowledge have been undervalued. The metrics used to determine the footprint were based on a poor study of fishing footprint that vastly overestimated the impact of fishing. Many deep-water coral species have a depth distribution that includes areas much deeper than the fishery, areas that are effectively protected from fishing by their depth, including such areas within management blocks open to fishing. This is represented in the slide below:



Our rights under the Convention for the Law of the Sea (UNCLOS) to fish sustainably on the high seas have been progressively eroded to the extent that the small area where we are permitted to fish is less than 1% of the fishable habitat in SPRFMO. Further, our vessels only trawl less than 10% of the 1% that is open to fishing[1], and this is subject to move on rules. By incorporating the definition of mid water trawling (with no scientific basis for this) into the definition of bottom trawling, this precluded access to any trawling outside the open areas. So once again we have to state the obvious, over 99.98% of the SPRFMO area is effectively closed to trawling which represents the biggest bottom fishing marine closure in the world.

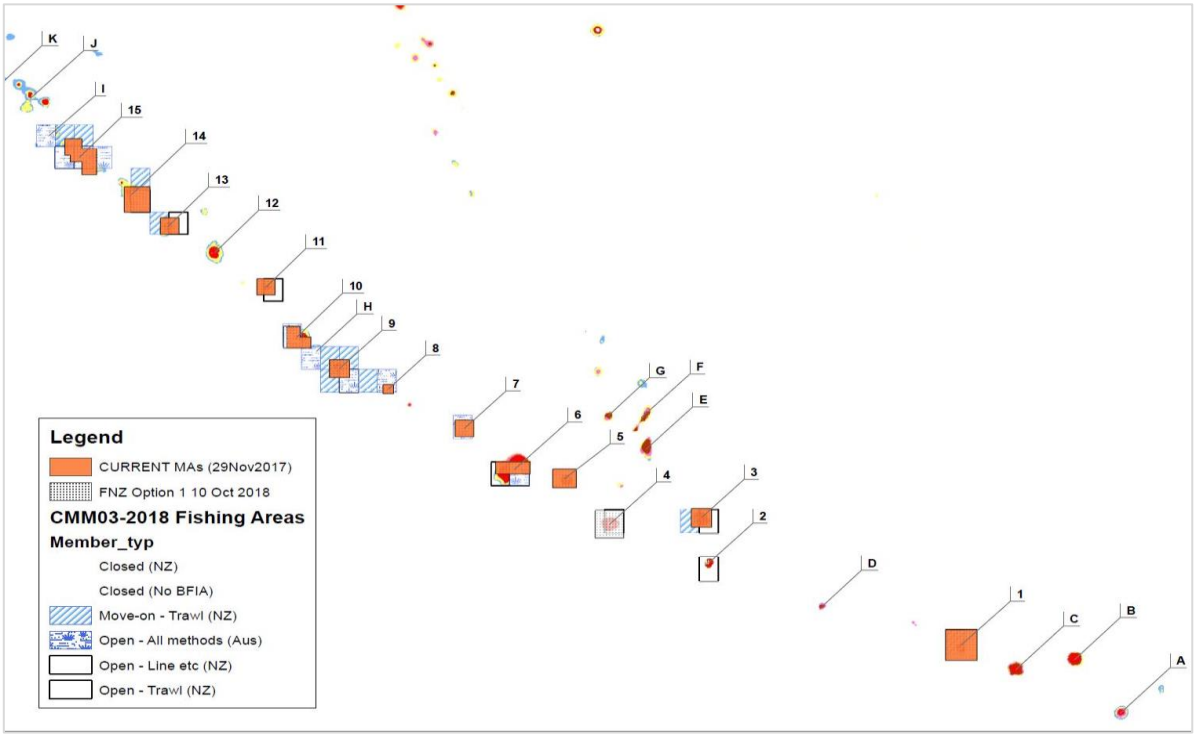


Figure 3 - The black solid lines and orange boxes form the new open areas. Shaded areas show the extent of the old boxes with current areas we are allowed to fish. New Zealand accepts that the new boxes reduce the areas open to vessels by an additional 50%. And within those open boxes there is now a "move on rule ". The total area within the new boxes with depths of less than 1600 m is approx 1141 Km² and within that area we actually fish less than 10%!

We have challenged the science and management measures in SPRFMO with sustainable fishing at the forefront of our minds. **Ensuring sustainability** is defined in our Fisheries Act and means "*Maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations and avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment*". A balance must be achieved in the management measures to allow our members to continue to fish sustainably.

We urge members again to review some of the HSFG papers as they show that our approach is to use quality science to inform management measures that lead to sustainable utilisation and maintenance of biodiversity.

[1] We have calculated of the approximately 49million Km² of the SPRFMO area, the revised open boxes comprise 57,788 km², being 0.1179% of the total SPRFMO area. Of this area, we fish less than 10% of the open boxes thus the total area impacted is approximately 0.01179%!

The following links lead to all the relevant HSFG papers:

- → Objection to proposed New Zealand and Australian Encounter protocols
- → Competing Narratives
- → Management by Seafloor Feature of Deepwater Fisheries in the South Pacific Ocean
- → Alternative Proposal for the Management of Deepwater Fisheries of the South Pacific.
- → Objection by the High Seas Fisheries Group to the Proposed SPRFMO Draft – Bottom Fishing CMM
- → Rational Use…What have we missed?

We ask that all the astute science people involved in the SPRFMO process to really consider what HSFG is saying in this document, as you have the livelihoods of many fisherman/women in your hands. Applying unnecessary measures that are hyper precautionary is plainly incorrect. The founding articles of the SPRFMO Convention and the terms of UNCLOS demand that sustainable utilisation must be taken into account, and a hyper precautionary approach should not extinguish the ability to fish sustainably.

We have been driven to the conclusion that fishermen have been ignored and side-lined in this process. Our officials will detail numbers of stakeholder meetings; however, tick box meetings do not comprise adequate consultation particularly where fishermen's views on key issues have been ignored. A good example of this is the imposition of the move on rules under the bottom fishing CMM. This was unsupported by science and was imposed as political consideration despite our objections at the various stakeholder meetings and workshops.

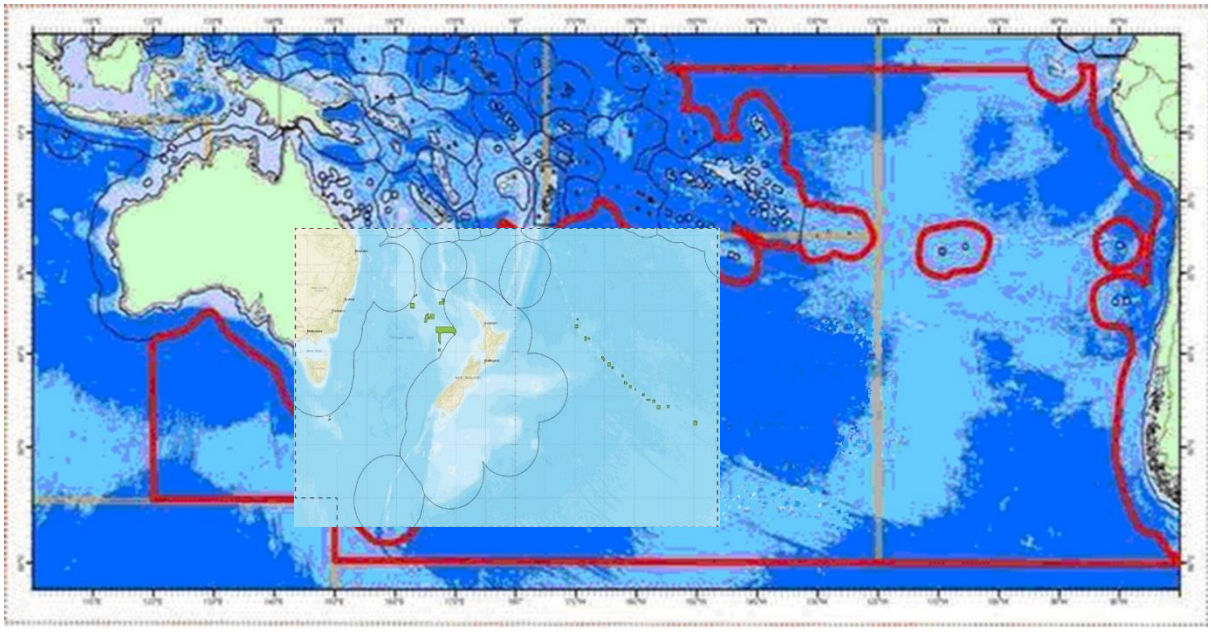
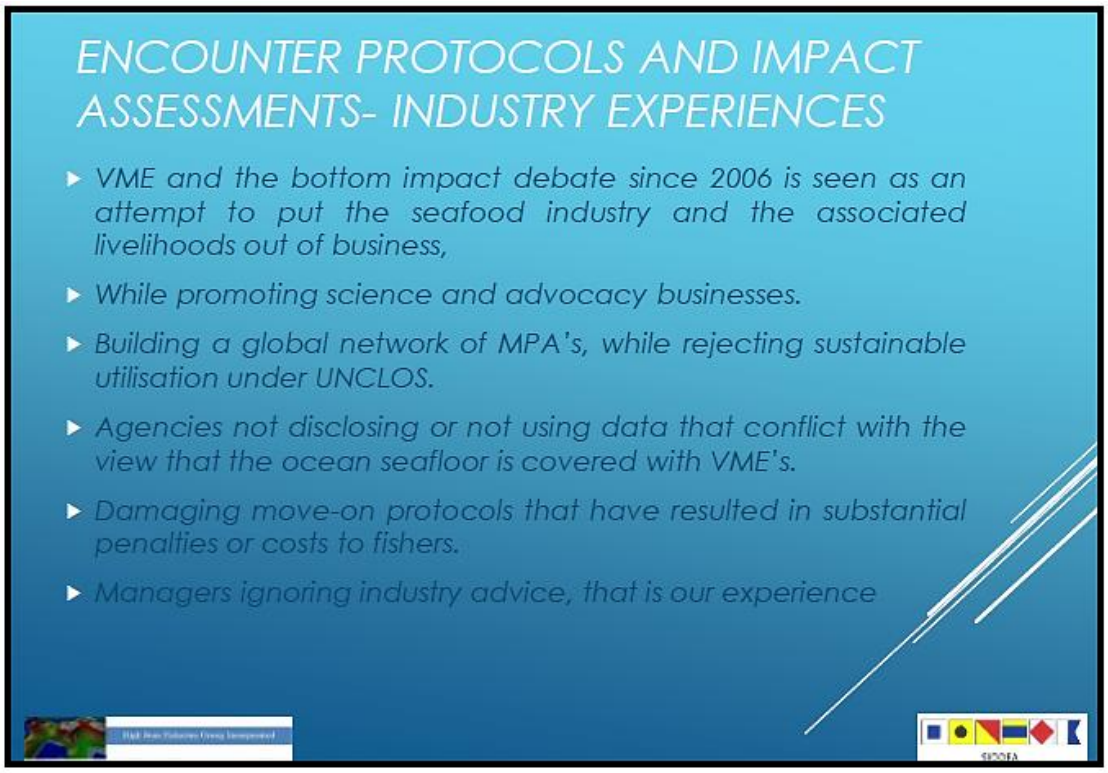
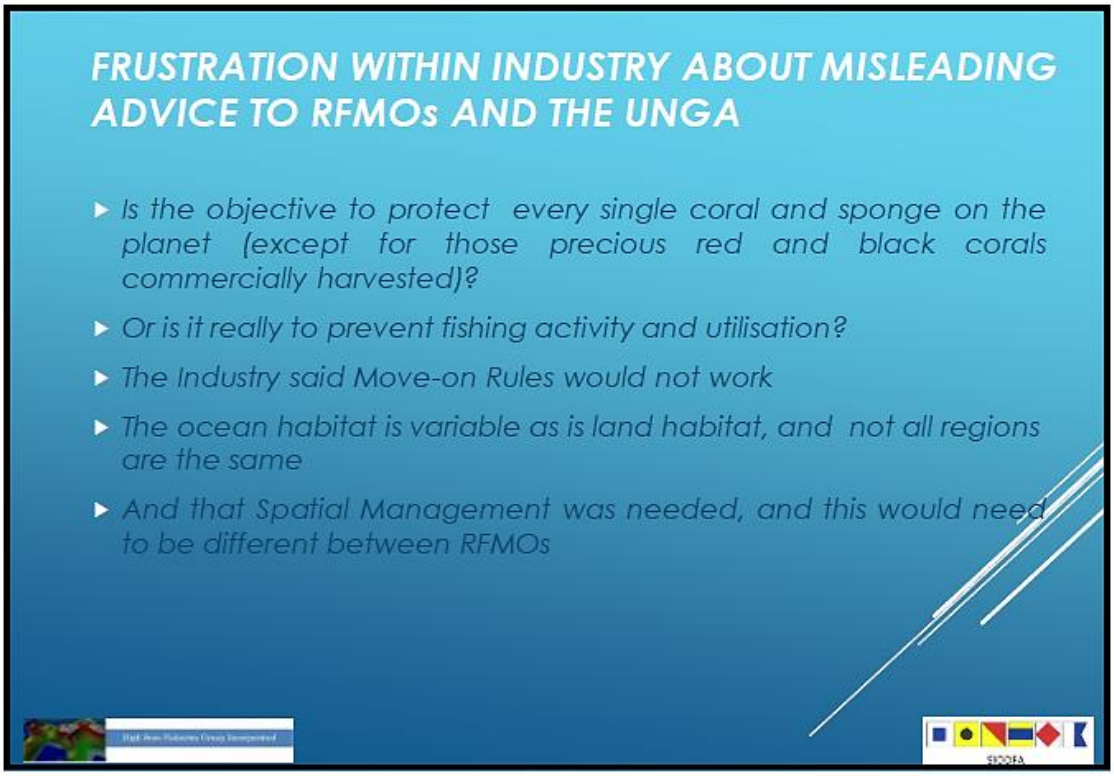


Figure 4 - This slide shows what New Zealand refers to as the "evaluated area". We remind members that inside the evaluated area a fraction of the area is actually fished. So please recall when you are talking about protection of VMEs over 99.9 % is already protected. We suggest strongly this is already highly precautionary. We believe the term " evaluated area" is a misleading construct as the area has not been scientifically evaluated , as the area that is now open to fishing within this "evaluated area" is a fraction of the overall area. What has been "evaluated" and to what standard?

As an industry group we are confronted by, and must deal with, the realities that we face when undertaking our business on the high seas. It is built into our business models and values to protect our environment and fish sustainably.

What we fear is happening now is that those who should be helping to understand and facilitate our business, consistent with the objectives as articulated in the SPRFMO convention have captured the process for objectives more appropriate for other ends. This is not only an issue that we are facing in SPRFMO and is being faced in other RFMOs including SIOFA as the slides below show.





2. Concerns over poor science.

We are also concerned that that some of what we see being done under the banner of science scarcely seems to be useful or robust science. A scientific method simply means that it is based on or characterized by the methods and principles of science. We have seen presentations claiming to show the probabilities of encountering particular types of habitat – no doubt estimated following a scientific method. But because the results presented depend explicitly on the arbitrarily chosen scale, the results have no valid scientific meaning. Change the scale – change the results – this cannot be described as robust science!

A clear example of misapplied science is found when a number of heavily trawled areas were closed to fishing and also scientific research, and this closed access to several significant Orange Roughy stocks which were then excluded from the stock assessments, and is a major reason why the SPRFMO stock assessments for Orange Roughy are not scientifically credible. This is a particularly New Zealand science advocacy approach that is well documented in the literature for the MSC Assessment of Orange Roughy. Simply put, there were two aggregation areas on the Northwest Chatham Rise, with one closed to all fishing. The closed area aggregation increased rapidly in biomass, but was excluded from the stock assessment, which then said the stock had collapsed. With the adoption of new research technology by the fishing industry, the other aggregation could be surveyed. The 2014 result from assessment concluded the stock had never collapsed.

Further, since 2012 both New Zealand and Australian scientific advice to SPRFMO has been consistent that; with appropriate spatial management (as is now proposed), move-on-rules are not necessary to provide for managing the impacts of bottom fishing on benthic habitats and vulnerable marine ecosystems VMEs. This has been accepted by the SPRFMO Scientific Committee. The open areas proposed in the CMM submitted to SPRFMO in January 2019, represent only about half of the historic (pre-2002) footprint.

The methods that have been used to establish threshold and trigger values, while evaluated quantitatively and so may be described as 'scientific' have no ecological or zoological meaning. They are in our view arbitrary constructs, and those insisting on using these should clearly acknowledge the limitations when using these for fisheries management purposes. If we wish to gain useful information that can be used to interpret what may be found on the seafloor, then the common sense thing to do would be to take a second sample - indeed it should be insisted upon that a second tow is undertaken, even if the skipper wishes to move elsewhere. This is what is applied in some other RFMO's.

Yet, having followed the UNGA and FAO Guidelines to develop a spatial management approach, and after establishing there is low risk of Significant Adverse Impact to VMEs in SPRFMO with the current bottom trawl fishery, we now have the view being promoted that if the risk is low, then the definition of VMEs needs to be changed to ensure the risk of fishing is seen as higher. Our perception is that this methodology is what appears to be promoted to this Scientific Committee and should not be accepted.

Why do we say the risk of SAI is low? Because a NIWA research programme undertaken by the Tangaroa (TAN1402) was undertaken to ground truth a predicted model and discover the habitat which had been destroyed by bottom trawling (as reported to SPRFMO in 2014) and

very little was found. Most of the benthic material is below trawl depth, and of course with aimed trawling we would not go near rocks or we risk breaking nets or loss of fishing gear.

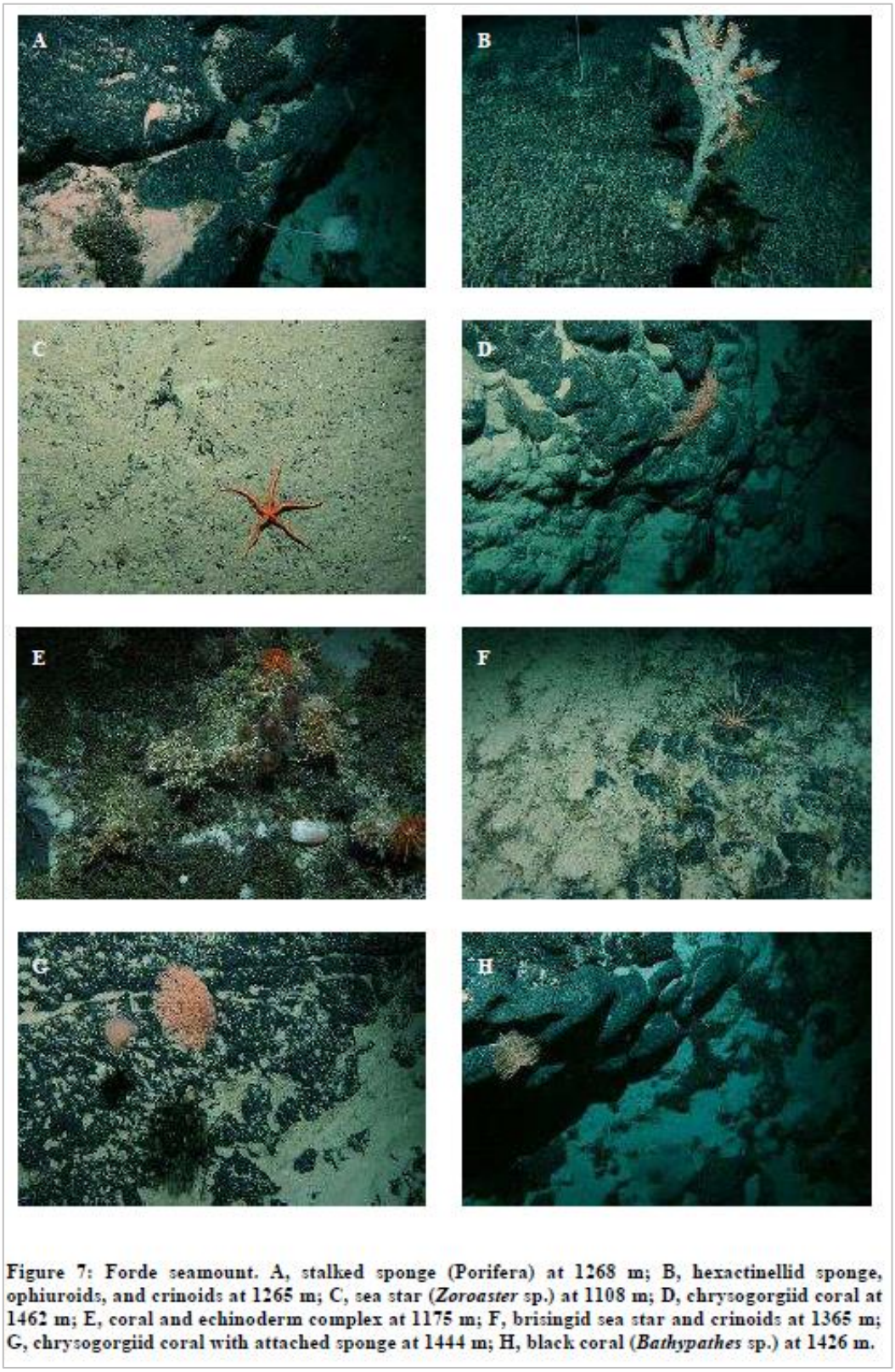


Figure 7: Forde seamount. A, stalked sponge (Porifera) at 1268 m; B, hexactinellid sponge, ophiuroids, and crinoids at 1265 m; C, sea star (*Zoroaster* sp.) at 1108 m; D, chrysogorgiid coral at 1462 m; E, coral and echinoderm complex at 1175 m; F, brisingid sea star and crinoids at 1365 m; G, chrysogorgiid coral with attached sponge at 1444 m; H, black coral (*Bathypathes* sp.) at 1426 m.

Figure 5 – Showing images taken where depth was deeper then where we trawl.

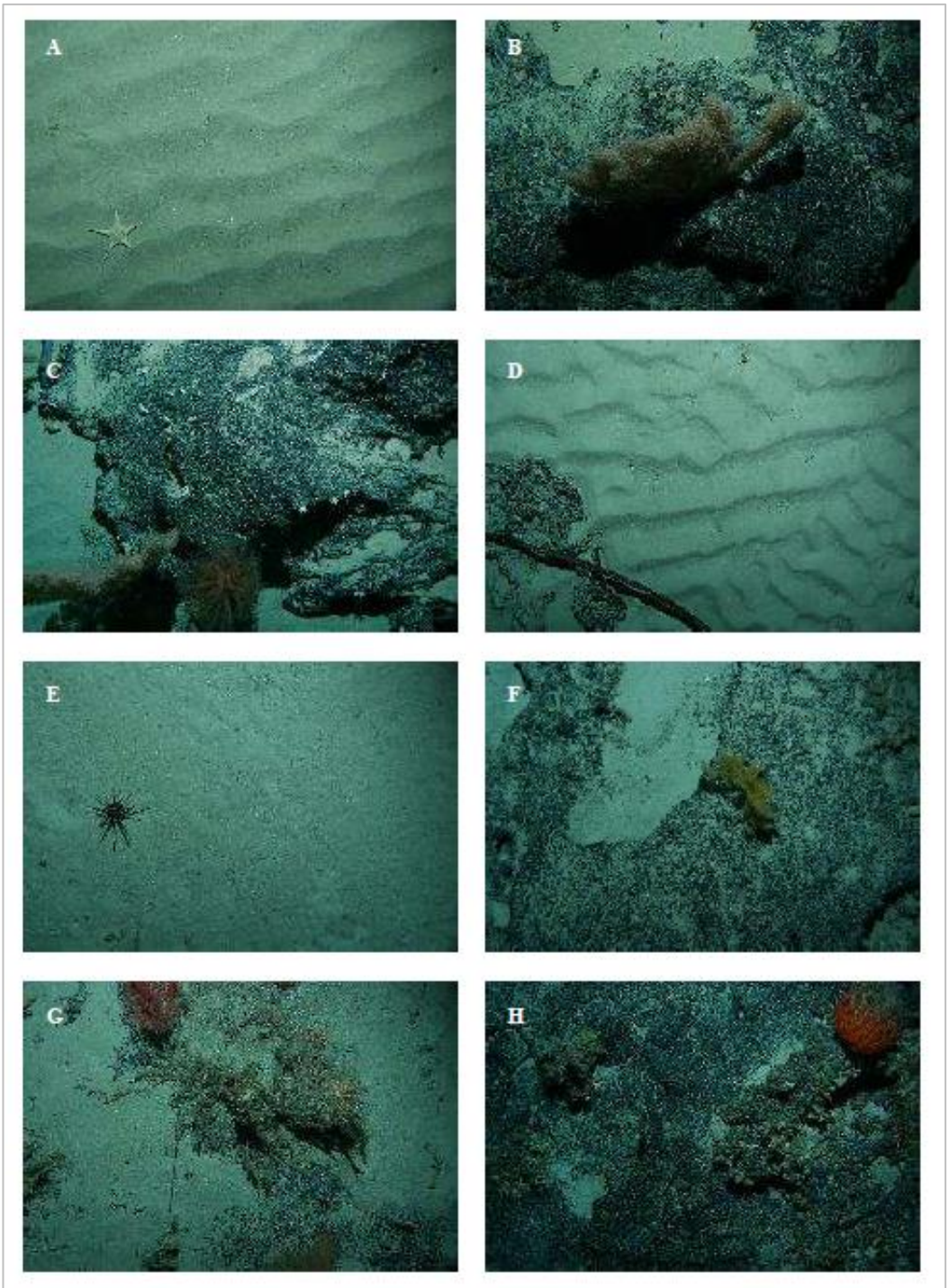


Figure 31: 39 South seamount. A, goniasterid asteroid at 959 m; B, primnoid coral at 920 m; C, primnoid gorgonian coral, alcyonacean soft coral, and stylasterid corals at 905 m; D, trawl warp at 1071 m; E, cidarid sea urchin (*Poriocidaris purpurata*) at 901 m; F, gorgonian coral at 900 m; G, species complex including a gastropod mollusc, plexaurid, scleractinian, and alcyonacean corals at 901 m; H, brisingid asteroid and small corals including scleractinian cup corals at 904 m.

Figure 6 - Showing images taken where depth where trawling could take place.

The only conclusion that could be scientifically reached from this, is that the 40 years of a bottom impact fishery on Louisville Ridge have had no Significant Adverse Impact on VMEs. It was shown that much of the coral habitat was below the actual trawl depth so was in fact totally protected.

We are still unsure of what comprises a VME. The same question has circulated within FAO for nearly 15 years on this issue. Vulnerability was a term already used by IUCN but it was clearly not the meaning that the UNGA had in mind when formulating the bottom fishing measures. The UNGA was concerned with a mix that included protecting sea mounts, vents and cold-water corals – a mix that has troubled those who inherited addressing the problems raised by the UN resolution. The FAO dealt with much of the poorly informed language of the UNGA, such as geological structures being wrongly defined as VMEs, and the UNGA accepted these corrections as produced in the Guidelines. The question that challenged the drafters then and which is exercising the HSFG now is ***vulnerability*** *to what?*

The obvious conclusion was that the 'vulnerability' referred to the ecosystem. But again, vulnerable to what result?

- Wiping out of the ecosystem? Or some other form of extinction? But clearly this cannot be the case.
- Vulnerability to modification? Self-evidently bottom fishing removes biomass from seafloor features or underwater topographic features. Clearly yes but this seems to be a limited conclusion as few others have expressed this concern.
- Could it be destruction of sessile fragile benthos along trawl tracks? Fragile benthos in contact with the footrope of a trawl will be knocked over if not completely destroyed. But we know, and it is now well documented in SPRFMO, that bottom fishing is undertaken over only a small fraction of the seafloor, even when considered only in terms of the depth range in which fishing occurs.
- Further, on those seafloor features where fishing is undertaken, Captains fish along highly defined trawl tracks – to do otherwise invites the vessel coming fast and delays to fishing, and possibly even losing the gear and incurring a $100,000 replacement bill, if not an instantly curtailed fishing trip.

Because of the highly spatially restricted nature of the fishing in SPRFMO it is difficult to conceive that populations, communities or species would be wiped out or even depleted to the point that the entire population or community would be *vulnerable* in the sense of community. But how often have scientific studies addressed that particular question? We know of none.

This has left the sole conclusion that the term *vulnerable* could only refer to the removal, damage or destruction of ***any*** benthos impacted by a trawl footrope no matter the ecological triviality of the consequences. This conclusion doesn't make any sense in the context of the UN resolution, nor the deliberations of the FAO.

We are aware that there is still no list of known VME's areas in SPRFMO other than predictions from models. FAO have requested all RFMOs to provided them with a list and positions of known VME's, and we would enquire whether SPRFMO supplied these to FAO?
Some questions I would ask you to consider:

- Who identified the VME criteria that are attributed to FAO? I am aware that some of authors of the guidelines were not staff at FAO. The HSFG wishes to revisit these guidelines and the qualifications of those who wrote them.
- Are there any species that can be excluded from consideration within the context of the current definition of VME?

You may remember the comments of the EU participant, Andrew Kenny, at the last SIOFA Scientific Committee meeting in which he commented on the five criteria endlessly repeated for identifying "VME" taxa (well, potential of). He claimed that of the five, four of them cannot be usefully operationalized. Something we have been asserting for over a decade and is reflected in HSFG.

The purpose of fishing is not to provide raw data to develop so-called predictive models, it is to provide food, provide livelihoods. I also encourage the SC to have regard to data that may conflict with the commonly held view that the seafloor is covered with VMEs.

The HSFG notes further that it is past time to revisit the International Guidelines for the Management of Deep-sea Fisheries in the High Seas and FAO has recognised the need for this. We have come a long way in how we manage bottom trawling, and our understanding of the benthic environment in the last 15 years. Could SPRFMO lead or encourage this review? Possibly, but the HSFG suggests that SPRFMO avoid using trite terminology and apply pure science and the "best available information "in their decision making.

3. The new proposed BFIAS produced by Australia and co-authored by New Zealand.

HSFG has commented on the proposed draft BFIAS text, which was no easy task and some of our comments are repeated below. Our overall impression is that this document was 'not fit for purpose' for the reasons we set out in the document.

The HSFG was an early proponent for the spatial management approach and it appears that this is now an acceptable way to manage bottom fishing the SPRFMO area. This includes a detailed consideration of what areas should be opened and what should be closed to balance the economic interests of the fishermen and the conservation of VMEs.

We are deeply alarmed that even though the majority of the areas that can be fished are now closed to bottom fishing under the spatial management model, that the BFIAS seems to ignore this, and attempts to set an unrealistic standard which we suggest is out of step with the intent and purpose of the Convention. We suggest that the BFIAS, is out of step with the Objective of SPRFMO (Art 2) which states that:

"The objective of this Convention is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation

and sustainable use of fishery resources and, in so doing, to safeguard the marine ecosystems in which these resources occur."

This anticipates a balance must be sought between conservation of fishery resources and the sustainable use of fisheries resources. However, the work done around the review of the BFIAS, which ultimately sets the standard against which bottom fishing (which includes mid water trawling) is measured will have the inevitable effect of shutting out bottom fishing from the remaining open areas.

Nowhere in the preamble to, and the content of the BFIAS is recognition given to the fact that there are more than sufficient representative areas closed to protect the full range of benthos and bycatch. We suggest that given that fishing has occurred in the open areas for decades recognition should be given to the fact these areas would have already been altered significantly by bottom fishing if there were fragile benthos present.

Put differently, a correct application of the ecosystem approach to fisheries management, (which should be reflected in the BFIAS) would consider and recognize the ecosystem as a whole and put in place standards against which impacts can be assessed across the whole ecosystem. What we see in the BFIAS, is a myopic focus on the open areas themselves, with no recognition given to the wider closures and the wider impact of the closures on the ecosystem. We are alarmed at the increasingly detailed and prescriptive standards that are being set, which will PRECLUDE the sustainable use of fisheries resources. We suggest that this is out of step with UNCLOS (which anticipates a balance between sustainable use and conservation), and the Fisheries Act 1996, under which the permits are conditioned.

Art 3(2)(b) of the SPRFMO convention states as follows:

An ecosystem approach shall be applied widely to the conservation and management of fishery resources through an integrated approach under which decisions in relation to the management of fishery resources are considered in the context of the ***functioning of the wider marine ecosystems*** *in which they occur to ensure the long term conservation and sustainable use of those resources and in so doing, safeguard those marine ecosystems.*

You will see that decisions in relation to the management of fishery resources must be considered "in the context of the functioning of the wider marine ecosystems". We do not see this reflected in the preamble to, or in the text of the BFIAS, which we suggest reduces the value of the standard as it does not promote the balance between sustainable use and conservation, and places a greater value on conservation metrics to the exclusion of fishing.

Further, we do not see in the preamble to or language of the BFIAS, a balanced consideration of the economic values of fishing and how those should be weighed against conservation values.

Put differently, the BFIAS, imposes a purely scientific approach to determining impacts on the resource, and completely ignores fishing value layers. The focus of the impact assessments (and this Standard) have to be widened geographically and include economic effects on fishing.'

We realize that Australia (and New Zealand) have had a long involvement with preparing texts to deal with these marine fisheries issues and that the FAO Guidelines (and probably the texts

involved at the UN negotiations) were very much the product of our two governments. Not surprisingly, institutional attachments remain strong and our experience with government departments is that they are usually reluctant to change course especially if it may not reflect well on past actions. For our part, we believe that we have learnt a lot over the past decade and this experience should be properly applied through a balanced consideration of utilization and conservation.

We are deeply concerned at what seems to us to be the continued politicization of science. The UNGA is the world's peak political body. We are dealing with scientific/technical issues in the Scientific Committee. Our impression is that the BFIAS cannot decide if it is a scientific text or not, and our comments and changes to the document reflect this. Certainly, much of the text does not relate to providing a standard.

When citations are copied and pasted into a paper (several of the papers referred to are long past their use-by-date,) the reader is often forced to go back to the original reference, where we have found that the contents of the paper have been misrepresented or incorrectly interpreted. A standard should be precise and accurate, not a ramble through what seem to be haphazardly selected papers, several of which should now be well into retirement, or now shown to be incorrect or using invalid assumptions.

It will be no news to you that we still cling to the view that the term 'ecosystem' had (and has) a useful and widely accepted understanding in science, and confusion arises when the conventional meaning is twisted or ignored which appears to occur frequently in this document.

Our fishing (with some exceptions) is along well-defined tow lines, and as long as the fishery is permitted, then there will never be recovery of epifauna on those tow lines. This is the brutal honest truth and it is unrealistic to suggest otherwise. To increasingly regulate access through move on rules and other restrictions (e.g. presence/absence sheets) in these areas is out of step with the ecosystem approach (look at the ecosystem as a whole) and out of step with the Convention and UNCLOS.

In summary, the draft BFIAS has more than an acceptable level of *non sequiturs*. There are too many logical leaps and too many inconsistencies in use of words in both technical and common senses. These concerns must be addressed in a substantial re write.

4. Conclusion

There is a long history of HSFG objections to the manner in which this fishery is managed. This is reflected in a decade of correspondence with NZ officials. These objections include:

a. The conditioning of the High Seas Permits by restricting the operation of the vessels to a footprint made up of squares of 20 degrees of latitude and 20 degrees of longitude that has reference to the **2002 to 2006 historical catch years**. MFAT has acknowledged that these years were chosen arbitrarily with the aim of controlling the High Seas South Pacific mackerel fishery off Chile / Peru.

b. The previous categorisation of certain areas within the footprint as heavily trawled, lightly trawled and medium trawled with certain "move on" rules which are triggered

when benthos is caught. Some of the previously heavily trawled areas were open to fishing without restrictions, the medium trawled were defined as open, but vessels were to "move on" subject to a presence/absence of benthos caught, and previously lightly trawled areas were closed to trawling.

c. Contrary to scientific advice, the introduction of move on rules to augment the spatial controls in the 2019 Bottom Fishing Measure. We are driven to conclude that there is an agenda to completely exclude bottom fishing on the high seas and we fear that the same language and flawed science will be brought to bear on fishing within the EEZs.

d. The manner in which NZ implemented the Interim Measures to regulate bottom trawling, through the permit conditions. Where an area had not been fished for 10 years as it was closed and could only be opened through the mechanism of an exploratory permit. The manner in which the areas were categorised (closed/open/move on) in the interim measures caused fisherman to change their habits and fish elsewhere and target other species through midwater trawl. (such as Alfonsino). This led to a contrived definition change to include mid water trawling under the definition of bottom trawling, notwithstanding that midwater trawl nets rarely contact the bottom. By way of a comparison, purse seining in shallow water is likely to have a greater bottom impact than the alfonsino midwater trawl contact (as the trawl generally breaks on bottom contact if there is any rocky habitat). New Zealand officials know that purse seine nets touch the bottom. I urge readers to again recall the first paragraph where the 2002 – 2006 arbitrary years chosen actually excluded a huge area of bottom that had already been fished extensively so that has never even been considered! This supports our strongly held view that "all best available information "was not used!

e. The regulation of mid water trawling by the amendment of the definition of "bottom fishing' to include mid water trawling. HSFG objected to this strongly. We see now, some years later that that Australia and NZ proposed 3 bottom fishing categories which has been agreed – something we suggested and were ignored.

f. The proposal for and the subsequent introduction of catch limits for Orange Roughy on the basis of predictive models and the subsequent exclusion of any new entrants.

In conclusion, we ask that the Scientific Committee give due consideration to the matters raised in this document and ensure that a fair balance is struck between sustainable use of the marine environment and protection of the environment. The hyper-precautionary approach currently being adopted in this and other forums is in our view out of step with UNCLOS, the UNGA Resolutions and the SPRFMO convention texts, and the global fishing industry is becoming aware of this fact.

Regards

ANDY SMITH
Chair

High Seas Fisheries Group Incorporated