

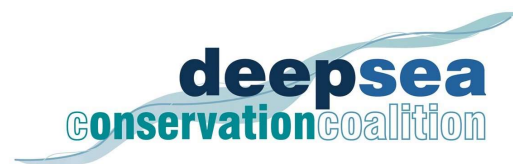
8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

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Information paper from the DSCC to the SPRFMO Commission

DSCC



Briefing for the Eighth Meeting of the Commission of the South Pacific Regional Fisheries Management Organisation

Port Vila, Vanuatu
14 – 18 February 2020

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Introduction and Recommendations

The Deep Sea Conservation Coalition (DSCC) respectfully submits this briefing for the Eighth Meeting of the Commission of the South Pacific RFMO (SPRFMO). The DSCC thanks the Vanuatu government for hosting this Commission meeting.

This briefing will address agenda item 3: Scientific Committee; item 6: Conservation and Management Measures (CMM), with respect to bottom fisheries; and item 8: Performance Review Recommendations.

The United Nations General Assembly (UNGA) will carry out a review of bottom fishing measures on 5-6 August 2020. SPRFMO should apply the UNGA resolutions 61/105 (2006) and later resolutions as well as the UN Food and Agriculture Organisation (FAO) [Deep Sea Guidelines](#),¹ to avoid significant adverse impacts (SAIs) on vulnerable marine ecosystems (VMEs). Only then can it and its Member States report that they are doing so.

The DSCC has been working to protect deep-sea VMEs from SAIs for over 15 years, working primarily CCAMLR, NEAFC, NAFO, SPRFMO and SIOFA as well as with the relevant fishing States. Based on its work and the accumulated scientific findings, the DSCC holds that bottom trawling on seamounts is unsustainable, that the past 13 years shows that SAIs require their closure and that bottom trawling on them should cease.

The DSCC makes the following recommendations, elaborated further in the text below the recommendations:

1. While welcoming the European Union (EU) proposal [COMM8-Prop07](#) to amend [CMM 03-2019](#) on bottom fishing by amending the encounter protocol to less extreme levels, we note that it is based on an application of the 95th percentile,² and recommend that the Commission adopt the 70th percentile as the appropriate trigger level which would be more consistent with the precautionary approach underlying the intent of the proposal. But as calculations are only available for the 80th, the Commission may wish to adopt the 80th until the Scientific Committee (SC) provides calculations for lower percentiles.
2. The DSCC also welcomes the suggestion of a workshop to precede SC-8.
3. The Commission should instruct the SC to prioritize stock assessments for all target species as a matter of urgency and no later than by the 2020 SC meeting. This is a fundamental requirement for sustainable fisheries management. Further fishing should not take place without stock assessments and a determination of sustainable levels of catch for target species.
4. The Commission should instruct the SC to provide advice on assessments and minimizing impacts on non-target species, in order for measures to be established to minimize, prevent, or eliminate the catch of deep-sea (low productivity) species, in particular species listed as endangered, threatened, vulnerable or near threatened on the IUCN Red List or otherwise likely to qualify as such under IUCN Red List criteria.
5. As a precautionary measure pending the CMM 03-2019 review in 2021, the Commission should agree to close all areas where the habitat suitability modelling done to date (without the naturalness or fishing layers) has indicated the likely presence of VME indicator species, as well as rare species, even where fishing has previously occurred.
6. The Commission should instruct the SC to develop an encounter protocol for longline fisheries. CCAMLR's measures for controlling bottom longline fishing could be used as a model (e.g. CM22-07).
7. The DSCC welcomes the proposal of the EU to increase the level of observer coverage in longline fisheries to 30% and recommends that it be adopted.
8. The New Zealand and Australian proposal [COMM8-Prop08](#) recommending that Members Cooperating Non-Contracting Parties (CNCs) be able to underfish and carry forward up to 10% of their catch limit to the next year or overfish in any year without restriction, and have the excess deducted in the following year, should not be accepted as it is uncertain, contrary to good enforcement and scientific practice, can potentially impact further on small stocks, and without scientific basis and difficult to implement effectively.
9. [CMM 03-2019](#) adopted in The Hague in January 2019 and due for review next year, requires extensive amendments, as it is inconsistent with the provisions related to the protection of VMEs in UNGA [resolutions 71/123](#) (2016), [64/72](#) (2009) particularly paragraphs 119³ and 120,⁴ and [resolution 66/68](#) (2011), as well as [resolution 61/105](#)⁵ (2006) and the 2008 United Nations FAO Deep-Sea Guidelines and the provisions of the SPRFMO Convention as well as the UN Fish Stocks Agreement. We recommend that a transparent process be agreed to review the CMM from the starting point of the objective of preventing significant adverse impacts on vulnerable marine ecosystems.
10. The DSCC recommends implementation of the SC-7 suggestion for a measure prohibiting directed fishing on chondrichthyans (sharks, rays, skates etc).
11. The Commission should amend the list of "other species of concern" in Annex 14 of CMM [03-2018](#) (data) to include deep-sea sharks in the SPRFMO Convention Area which are categorized as critically endangered, endangered, vulnerable or near threatened on the

- IUCN Red List. It should further include CITES appendix II relevant species as recommended by SC-4 in Annex 5 of the SC-4 report.⁶
12. The Commission should require the collection of information that will provide for assessments in non-orange roughy target fisheries. These fisheries should be closed if it is not likely that the information collected will lead to a robust stock assessment in a short timeframe.
 13. In the context of the Review Committee's commentary on increasing transparency, the DSCC notes that it was not informed of the proposal apparently made late in 2019 to convene an extraordinary meeting. We recommend that the Secretariat be instructed to ensure that that observers be notified on all non-confidential communications between the Secretariat and Member States.
 14. The SC should follow its work plan to study the effects of fishing on ecologically or biologically sensitive areas (EBSAs) identified in the Commission area and to identify appropriate responses, including protected areas.
 15. In its consideration of the Performance Review [Comm7-Doc06](#), the Commission should apply the recommendations as a matter of urgency, including with respect to matters to be considered in this Commission meeting. Our suggestions are included in Table 2.

Amendment of the Encounter Protocol

We welcome the EU proposal [COMM8-Prop07](#) to amend [CMM 03-2019](#) on bottom fishing by amending the encounter protocol to less extreme levels. However, it is said to be based on the 95th percentile, whereas the 70th percentile would be more consistent with the precautionary approach underlying the intent of the proposal. The DSCC recommends adopting the 70th percentile as the appropriate trigger level, but the table only lists the 80th percentile, so the Commission may wish to adopt that in the interim until the SC advises on taxa for lower percentiles. We note that the proposed thresholds are slightly higher than those in Table 4 from [SC6-DW-09](#).

The SC [SC-7](#) reported that: “The SC agreed that, if the Commission wanted to be more precautionary in the meantime, the management areas or thresholds could be adjusted to achieve this.” (page 122 para. 143) (‘In the meantime’ meaning pending next year’s review of CMM 03-2019).

Table 1 below includes the range of uncertainty that is included in Table 4 from [SC6-DW-09](#) for the different taxa. At 90%, for instance, 10 kg of stony corals can be caught; at 80%, the figure is 5 kg. The most precautionary figure should be chosen, given the recommendations of SC-7. NAFO research trawl surveys use 75%, for instance.

Table 1

10 Aug 2018

SC6-DW09

Table 4: The number of bottom trawl tows including bycatch (n), range in bycatch weight (kg), and percentiles in bycatch weight per VME indicator taxon. Percentiles are calculated using ordered values. Bycatch data is from all New Zealand bottom trawls within the western SPRFMO Convention Area between 2008 and 2018.

FAO Code	Taxon	n	Range	Percentiles (kg)						
				0.8	0.9	1	0.97	0.98	0.99	0.995
PFR	Porifera (Phylum) <i>Sponges</i>	811	0 — 1091.2	3.3	7.8	13.9	20	25	50	95
GGW	Gorgonacea (Order) <i>Sea fans</i>	235	0 — 42.7	0.6	1	2	5	7.2	15	21.3
AXT	Stylasteridae (Subclass) <i>Hydrocorals</i>	22	0 — 8.0	1	1.7	2				
CSS	Scleractinia (Order) <i>Stony corals</i>	1257	0 — 5000.0	5	10	20	40	60	250	700
AQZ	Antipatharia (Order) <i>Black corals</i>	636	0 — 10.4	1	2	2.9	3.9	4.8	5.5	7.6
ATX	Actiniaria (Order) <i>Anemones</i>	774	0.02 — 77.0	7.24	12	20	24.5	30	38	41
AJZ	Alcyonacea (Order) <i>Soft corals</i>	383	0 — 200.0	1	2.3	13.2	24.1	30	60	125.1
NTW	Pennatulacea (Order) <i>Sea pens</i>	78	0 — 3.6	1	1	1	1	1		
CWD	Crinoidea (Class) <i>Sea fillies</i>	31	0-2.0	0.2	1	1				
BHZ	Brisingida (Order) <i>‘Armless’ stars</i>	28	0.02 — 5.0	1	2	3				

As indicated by [SC7-DW21](#), Pitcher *et al* 2019,⁷ the impacts of bottom fishing on VME indicator species are much greater than the quantity that ends up in the nets. SC-7 agreed.⁸ “[A] trawl catch of 250 kg of corals could scale to a seabed contact of more than 33-104 t of corals on the seabed”. The DSCC presented a paper [SC7-Obs04](#) to SC-7 showing that the 99% threshold is arbitrary and extreme and that the policy choice of a percentile threshold is ultimately one for the Commission, applying the precautionary approach and other provisions of the SPRFMO Convention and following the applicable UNGA Resolutions and the FAO Deep Sea Guidelines.

[SC-7](#) “Agreed that work in progress suggests that uncertainty in the predictions of the habitat suitability models for VME taxa may be higher than previously thought and this leads to increased uncertainty in estimates of the proportion of stony coral protected across the modelled region. Specifically, the new results might indicate that CMM03-2019 may provide less protection than previously thought.”⁹

SC-7 also “Agreed that the VME indicator taxa thresholds outlined in CMM 03-2019 are likely to correspond to high coverage and biomass of VME taxa on the seabed and further work is required to establish whether current thresholds are consistent with the objectives of CMM 03-2019 to prevent significant adverse impacts on VMEs, and that it is important to evaluate whether bycatch of VME indicator taxa that correspond to these thresholds would result in significant adverse impacts” and “Agreed that given these increased uncertainties, lower encounter thresholds for VME indicator taxa would help to mitigate risks of significant adverse impacts on VMEs until key uncertainties with the performance of the spatial management measures can be resolved.”¹⁰

It is clear that based on these scientific recommendations of the SC, the thresholds need to be reduced significantly to take account of the agreed uncertainties. Previously, [SC-6](#) observed that “the selection of a particular threshold from the list of candidate thresholds identified by the analysis is somewhat arbitrary”.¹¹

That the Commission needs to act is clear. Article 2 of the Convention requires a precautionary approach and safeguarding the marine ecosystems.¹² The precautionary approach is spelled out in Article 3¹³ of the SPRMFO Convention. Specifically, when the Commission is deliberating, it must be more cautious when information is uncertain, unreliable, or inadequate; and must not use the absence of adequate scientific information as a reason for postponing - or failing to take - conservation and management measures. While the percentile choice needs to be precautionary, the 99% percentile is extreme and thus extremely non-precautionary.

We also suggest that the SC be tasked with developing an encounter protocol for longline fisheries. SIOFA has done that in its interim bottom fishing [measure](#) and CCAMLR has had one in place for over 10 years.¹⁴

In addition, as a precautionary measure pending the CMM 03-2019 review in 2021, the Commission should agree to close all areas where the habitat suitability modelling done to date (without the naturalness layer and fishing layer) has indicated the likely presence of VME indicator species, as well as rare species, even where fishing has previously occurred. This is because UNGA resolution 61/105 provided that:

- (c) In respect of areas where vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, are known to occur or are **likely to occur** based on the best available scientific information, to close such areas to bottom fishing and ensure that such activities do not proceed unless it has established conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems.

The Australian paper [SC7-DW21 rev1](#) identified that the model may over-predict the likelihood of occurrence of VME indicator taxa, meaning that there are not effective measures in place to prevent SAIs on the VMEs.

In addition, as a precautionary measure pending the CMM 03-2019 review in 2021, the Commission should agree to close all areas where the habitat suitability modelling done to date (without the naturalness layer) has indicated the likely presence of VME indicator species, as well as rare species, even where fishing has previously occurred. This is because UNGA resolution 61/105 provided (para 83) that:

- (c) In respect of areas where vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, are known to occur or are **likely to occur** based on the best available scientific information, to close such areas to bottom fishing and ensure that such activities do not proceed unless it has established conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems.

This would be in compliance with UNGA resolution 61/105 paragraph 83(c) which calls on States and RFMO/As, in respect of areas where VMEs, including seamounts, hydrothermal vents and cold water corals, are known to occur or are likely to occur based on the best available scientific information, to close such areas to bottom fishing and ensure that such activities do not proceed unless it has established conservation and management measures to prevent SAIs on VMEs.

“Unders and Overs”

The New Zealand and Australian proposal to permit overfishing (without limit) on the basis that fishing will be commensurately reduced the following year, and to compensate for underfishing (to 10%) by allowing overfishing the following year should not be implemented. It is a proposal that would, firstly, legitimize unlimited overfishing, and secondly, legitimize overfishing in the following year, in the second case, regardless of any scientific advice to the contrary. It is an approach more suitable to an RFMO without an adequate enforcement mechanism. It would introduce uncertainty: if one or more fishing States or companies are overfishing, then the others should reduce theirs to avoid more overfishing – and it is unlikely they would even be aware that some are overfishing. Conversely, allocation for years following underfishing would be complex, and in need of further scientific advice to avoid overfishing on stocks which are already under pressure.

New Zealand manages in its own national waters two orange roughy quota areas (ORH2B and ORH3A) with catch limits under 200 tonnes (60 tonnes and 177 tonnes respectively) which are less than the current interim SPRFMO catch limits. These fisheries are not managed using ‘unders and overs’ but rather by a deemed value penalty regime where fishers pay a deemed value for catches above their allocated annual catch entitlement (ACE): in other words, they are penalized for overfishing, rather than rewarded with an additional quota for the following year.

Most of the current orange roughy catch limits apply to broad geographic regions and lump specific stocks in these limits which is not precautionary. The Louisville Ridge has three identified stocks and the Tasman Sea (excluding Tasman Rise and Westpac Bank) consists of three stocks (Lord Howe, NW Challenger and West Norfolk).¹⁵

A 10% over-run is not a small amount. It would represent 114 tonnes on Louisville stocks and 35 tonnes for Tasman sea stocks, which is, for example, nearly 60% of the precautionary catch limit suggested for the West Norfolk Ridge¹⁶ and about 45% of the median yield for South and North Louisville.¹⁷ Catch limits should be set for each stock prior to any decision about under-

runs and over-runs. The approach suggested in [COMM8-Prop08.1](#) is not precautionary and thus breaches the SPRFMO Convention. See further commentary in the stock assessments section below.¹⁸

The Bottom Fishing Measure

Deepwater Spatial Management

[CMM 03-2019](#) is to be reviewed next year. It is in need of major revision, including its fundamental basis being its approach of taking the Zonation model and turning it in effect into the main management measure itself, rather than using it as a tool for management, and rather than starting from the requirement to avoid SAIs on VMEs. The Australian paper [SC7-DW21_rev1](#) has shown it is not precautionary and that there are not effective measures in place to prevent SAIs on the VME. This is discussed further below under the section “Spatial Management”.

The UNGA will again review the implementation of the UNGA resolutions on bottom fisheries in areas beyond national jurisdiction on 5-6 August 2020. It is unfortunate that the CMM will not be revised in time for that, as it is important for New Zealand and Australia, and for SPRFMO, that the measures in place for the South Pacific high seas bottom fisheries to be managed consistent with the commitments established in the UN resolutions and obligations under international law.

Stock Assessments

SC-7 reported that “the current stock status for each of the stocks is quite uncertain” and “the estimates of unfished and current biomass for the Louisville stocks remain uncertain”.¹⁹ In fact input data did not include any biomass estimates at all.²⁰ The SC noted that there is a possibility that Louisville South is below 20% B_0 ²¹ and that the current stock status for Louisville Central and North is likely above 30% B_0 .

Much uncertainty surrounds the recommendations of 1,140 tonnes per year until 2022 on the three stocks combined on the Louisville Ridge.²² In addition, the SC noted in both areas that “[a] significantly more precautionary approach is recommended if insufficient advancement is made in data collection to support stock assessments for the relevant stocks.”²³ Already over two years have passed since these recommendations. The DSCC notes that orange roughy from the Louisville have been aged at up to 230 years which are the oldest fish aged in the New Zealand region so far.²⁴

The DSCC recommends that, at a minimum, the allowable catch be limited to the average annual catch over the previous 2-4 years until a more reliable determination of sustainable levels of catch can be made.

SC-5 in 2017 called on Members to develop biological reference points and harvest control rules.²⁵ Yet in 2020, neither have been done. SC-7 requested the Commission to consider whether a Deepwater Workshop could provide the opportunity to do so,²⁶ to include further topics in need of deliberation, such as developing appropriate biological reference points for deepwater stocks within SPRFMO. It is high time this was done. If it is not, fishing on the stocks should be stopped until it is, consistent with UNGA resolution 64/72 para. 121.²⁷

Non-Orange Roughy Target Species

The lack of recommendations on measures for target non-orange roughy catches (e.g. alfonsino, bluenose/blue-eye trevalla, and wreckfish) and bycatch falls short of the commitments to take action established in UNGA resolutions including resolution UNGA

74/18, adopted in December 2019, to the long-term sustainability of deep-sea fish stocks and non-target species and the rebuilding of depleted stocks, consistent with the Guidelines and, where scientific information is uncertain, unreliable or inadequate, to ensure that conservation and management measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species.²⁸

Alfonsino or bluenose are both targeted fisheries. As the New Zealand 2019 [annual report](#) notes, in the last year New Zealand undertook bottom trawling for alfonsinos (bottom trawling 57 tonnes and midwater trawling 211 tonnes)²⁹, and bottom line fishery for bluenose (34 tonnes) and for wreckfish (27 tonnes). These are significant catches and most of the bluenose catch came from the Challenger Plateau. Australia [reported](#) 145 tonnes of catch from its longline fishery in the SPRFMO area, including 18 tonnes of morwong, 24 tonnes of yellowfish kingtail, 5 tonnes of redthroat emperor and 66 tonnes of other species.

These species can be long-lived: the maximum age for bluenose is reported at 71 years.³⁰ The risk that catches can impact on these species is highlighted in the decline in bluenose in the adjacent New Zealand EEZ where bluenose abundance “could have declined by more than 50%”³¹ and was estimated as low as 17%.³² SC-4 recognized that efforts should be undertaken to assess the impacts on trawl and bottom longline bycatch species, in particular on low productivity species as called for in paragraph 47 of the FAO Guidelines.³³ It is past time for this to be prioritized.

Chondrichthyans (Sharks, Rays, Skates etc)

SC-7 noted that other RFMO/As, such as [SIOFA](#), have implemented measures prohibiting targeted fishing for deepwater chondrichthyans, which could be similarly implemented by SPRFMO to discourage such practices in the absence of scientifically based assessment and management.³⁴ The DSCC supports this and calls on Member States to introduce such a measure.

SC-7 also agreed that reductions in shark bycatch, particularly for species assessed to be at high or extreme vulnerability, would assist in mitigating any potential risk of overexploitation and that in the absence of estimates of sustainable yields and improved assessments, measures to reduce shark bycatch (if implemented) should be informed by the precautionary approach.³⁵ The suggested measure could also achieve this.

SC-7, like SC-6, recommended that identification protocols and biological data collection for deepwater chondrichthyans be strengthened for SPRFMO demersal fisheries. The proposed increase of observer coverage in longline fisheries to 30% may improve reporting of shark interactions.³⁶

UNGA resolution 71/123 (2016) called for measures to ensure the long-term sustainability of non-target species.³⁷ In light of this and its concern with impacts on low productivity fishery resources, particularly where scientific information is uncertain, unreliable or inadequate, the SPRFMO Commission should heed the UNGA’s call to ensure that measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species.³⁸ This is consistent with the Independent Review recommendation 100(d).³⁹

The DSCC recommends that the Commission additionally:

1. Instructs the SC to prioritize further research and advice on conservation measures for non-target species, for a measure to be adopted in the next Commission, in order for a measure to be adopted to minimize, prevent, or eliminate the bycatch of deep-sea (low

productivity) species, in particular species as endangered, threatened, vulnerable or near threatened on the IUCN Red List or otherwise likely to qualify as such under IUCN Red List criteria and

2. Amend the list of “other species of concern” in Annex 14 of CMM [02-18](#) (data) to include deep-sea sharks in the SPRFMO Convention Area that are categorized as critically endangered, endangered, vulnerable or near threatened on the IUCN Red List and to also include CITES appendix II relevant species as recommended by SC-4 in Annex 5 of the [SC-4 report](#) including *Bathyraja griseocauda*, *Centrophorus harrissoni*, *Centrophorus squamosus*, *Dipturus trachydermus*, *Hydrolagus ogilbyi*, *Odontaspis ferox*, *Rhinoraja albomaculata*, *Squatina albipunctata* and *Zearaja chilensis*. This should be further informed by the updated ecological risk assessment.⁴⁰

Independent Performance Review Report

The DSCC welcomes the thorough [Independent Performance Review Report](#) and the transparent way in which the Panel was established and conducted. We particularly welcome the recommendations on the ecosystem approach, deepwater fishing and transparency, and highlight the following recommendations. In Table 2 we draw attention to the following based on [Annex 8](#) to the [2019 Commission Report](#):

Table 2

Recommendation	Text	Comm 7 Response	DSCC Comment
166 (d)	Recommends that the Commission take urgent action to update the management measures for bottom fisheries, adopt a precautionary approach to the conservation of all deepwater stocks, and implement a SPRFMO-wide approach to the management and protection of VMEs as a matter of priority.	Notes that the recommendation has been substantially addressed by the adoption of a revised bottom fishing measure at COMM7. Notes that the impact of any bottom fishing on VMEs outside the Evaluated Area in the revised bottom fishing measure will be assessed through the exploratory fisheries measure and notes that where there is no fishing there is no impact on VMEs from fishing.	As discussed, CMM 03-29 is due for review next year. DSCC considers that it requires significant amendment to prevent SAIs on VMEs and implement other requirements of the UNGA resolutions and SPRFMO Convention.
166(h)	Recommends that the Commission review current efforts to give effect to Article 3(1)(a)(ii) to ensure impacts on non-target and associated or dependent species are taken into account, and Article 3(1)(a)(vii) which requires marine	Endorses the recommendation and commits to keep under review the Commission's efforts to give effect to Articles 3(1)(a)(ii) and 3(1)(a)(vii).	The Commission should require the collection of information that will provide for assessments in non-orange roughly target fisheries or these fisheries should be closed if it is not likely that the information collected will lead to a

	ecosystems to be protected, in particular those ecosystems which have long recovery times following disturbance.		robust stock assessment in a short timeframe.
166 (i)	Recommends that the Commission develop conservation and management measures for species of concern, with particular priority to be given to measures to prevent adverse impacts of fishing activities on chondrichthyans.	Endorses the recommendation, noting its links with work on ecological risk assessments being led by Australia.	A measure should be introduced to prohibit targeted fishing on chondrichthyans (sharks, rays, skates etc). The Commission should amend the list of “other species of concern” in Annex 14 of CMM 03-2018 (data) to include deep-sea sharks in the SPRFMO Convention Area which are categorized as critically endangered, endangered, vulnerable or near threatened on the IUCN Red List and to also include CITES appendix II relevant species as recommended by SC-4 in Annex 5 of the SC-4 report.

Ecologically or Biologically Sensitive Areas (EBSAs)

One item in the Work Program is to evaluate the impacts of fishing activities in EBSAs⁴¹ in 2019.⁴² The DSCC supports this as at least five areas within the Convention Area may meet the Convention on Biological Diversity (CBD) criteria for EBSAs. In addition, there are significant areas in the Commission Area that have not been assessed,⁴³ including areas in the south-west Pacific south of 40° S east of New Zealand, which includes the southern part of the Louisville Ridge, and south of 46° S in the Tasman Sea.⁴⁴

We therefore repeat our proposal that the Commission should put into place a process to study the identified EBSAs and consider appropriate management responses, including marine protected areas. To this end, the Commission in its roadmap should make a specific request to the SC to assess the EBSAs in the Commission Area and make recommendations.

Deepwater Spatial Management

We addressed the spatial management issue in [last year’s briefing](#), and although the CMM is not for review until next year, will summarize the core issues, since it was discussed by SC-7 in paragraphs 155-161. The SC noted that there are a number of unresolved issues, particularly regarding the definitions of SAIs and VMEs, and relevant questions of scale, and that SPRFMO in isolation is currently unable to resolve these issues; and recommended that the SPRFMO Commission cooperate and coordinate with other RFMO/As and the FAO in refining or developing guidelines on the interpretation of appropriate scale of consideration and assessment of SAIs on VMEs, giving consideration to the FAO Deep-sea Guidelines and

relevant UNGA resolutions, and taking into account efforts by RFMO/As to meet their obligations in this regard.

Based on this advice from the SC, it seems there is little that SPRFMO should do to progress New Zealand's view expressed in [SC7-DW17](#). No other demersal RFMO takes this approach, and it is fundamentally at odds with core principles of resolution 61/105 and later resolutions which aim at preventing SAIs on VMEs. It is also at odds with the precautionary approach mandated by the Convention in light of the very real problems with the Zonation model identified by Australia in paper [SC7-DW21_rev1](#) in that it may over-predict the likelihood of occurrence of VME indicator taxa, particularly stony coral reef, thus necessitating a precautionary approach in light of the "considerable uncertainty" in CMM 03-2019.

Put simply, New Zealand's proposed "bioregional" or even ocean based approach has no support in international fora, law or practice, and is at odds with well-established international practice. Contrary to New Zealand's espoused approach, it is unacceptable that VMEs may be significantly degraded or destroyed in specific areas even if multiple separate populations occur within a bioregion. No other RFMO has taken New Zealand's suggested approach.

This approach underlines a fundamental disconnect with CMM [03-2019](#) in that it has taken the scientifically derived Zonation model, which is appropriate as a tool for management, and has turned it into the main management measure itself, rather than use it as a tool for management, without any explanation or discussion, and most importantly, without providing any measures for preventing SAIs on VMEs. In developing the final measure, the UNGA system of prior impact assessments, closure of areas or imposition of measures to prevent SAIs on VMEs and the move-on rule to catch any impacts on VMEs was not followed.⁴⁵ The UNGA is supportive of predictive modelling, seabed mapping and similar tools which are to be used, but as means of implementing the necessary responses to identification of, and encounter with, VMEs: either to close such areas to bottom fishing until conservation and management measures are adopted, to prevent significant adverse impacts from bottom fishing on such ecosystems.²⁵

New Zealand's proposed approach is at odds with the SPRFMO Convention. Article 20.1(d) provides for the CMMs of SPRFMO to:

protect the habitats and marine ecosystems in which fishery resources and non-target and associated or dependent species occur from the impacts of fishing, **including measures to prevent significant adverse impacts on vulnerable marine ecosystems and precautionary measures where it cannot adequately be determined whether vulnerable marine ecosystems are present or whether fishing would cause significant adverse impacts on vulnerable marine ecosystems.**" (emphasis added)

Articles 20, with Article 10, clearly represent an incorporation of the approach of resolution 61/105, the protection of VMEs and avoidance of SAIs on VMEs. The mandate in article 20.1(d) to 'protect' habitats and marine ecosystems, as well as measures to prevent SAIs on VMEs is a strong one.⁴⁶

Lest there be any doubt, the FAO Guidelines describe VMEs and SAIs.⁴⁷ New Zealand cannot sensibly argue that VMEs are to be defined on a regional or a global ocean scale: VMEs are described by the FAO in terms of structures.⁴⁸

Quite aside from the legal requirements underpinning SPRFMO, it is important for SPRFMO to deliver on the biodiversity commitments made through the UNGA resolutions in light of the current negotiations underway for a new implementing agreement under UNCLOS for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction (BBNJ) which are set to conclude in late March 2020.

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¹ FAO, 2008. International Guidelines for the Management of Deep-sea Fisheries in the High Seas. At <http://www.fao.org/in-action/vulnerable-marine-ecosystems/background/deep-sea-guidelines/en/>.

² See note below.

³ UNGA Resolution 64/72 (2009) paragraph 119(a): Conduct the assessments called for in paragraph 83 (a) of its resolution 61/105, consistent with the Guidelines, and to ensure that vessels do not engage in bottom fishing until such assessments have been carried out.

⁴ UNGA resolution 64/72 paragraph 120: "Calls upon flag States, members of regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries and States participating in negotiations to establish such organizations or arrangements to adopt and implement measures in accordance with paragraphs 83, 85 and 86 of its resolution 61/105, paragraph 119 of the present resolution, and international law, and consistent with the Guidelines, and not to authorize bottom fishing activities until such measures have been adopted and implemented."

⁵ At <http://www.un.org/Docs/journal/asp/ws.asp?m=A/RES/61/105>.

⁶ SC-4 at <https://www.sprfmo.int/assets/Meetings/Meetings-2013-plus/SC-Meetings/4th-SC-Meeting-2016/SC04-report/SC-04-FinalReport-Rev1-25Oct2016.pdf>. See SC-6 report para 204: The Secretariat clarified to DSCC that there are no benthic species on the list of 'other species of concern' at present, and that there has been some recent work considering expansion of the list. <https://www.sprfmo.int/assets/2018-SC6/SPRFMO-SC6-Report.pdf> ("SC-6 Report").

⁷ Roland Pitcher, Alan Williams and Lee Georgeson. Uncertainty in model predictions and VME thresholds for CMM 03-2019. SC7-DW21_rev1. At <https://www.sprfmo.int/assets/2019-SC7/Meeting-Docs/SC7-DW21-rev1-Uncertainty-in-model-predictions-and-VME-thresholds-for-CMM-03-2019.pdf>.

⁸ SC-7 Report, Page 22 para. 135.

⁹ SC-7 Report, Page 23.

¹⁰ SC-7 Report, Page 23.

¹¹ SC-7 Report, Para 75.

¹² Article 2: 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.

¹³ Article 3: 1. In giving effect to the objective of this Convention and carrying out decision making under this Convention, the Contracting Parties, the Commission and subsidiary bodies established under Article 6 paragraph 2 and Article 9 paragraph 1 shall: (b) apply the precautionary approach and an ecosystem approach in accordance with paragraph 2.

2. a) The precautionary approach as described in the 1995 Agreement and the Code of Conduct shall be applied widely to the conservation and management of fishery resources in order to protect those resources and to preserve the marine ecosystems in which they occur, and in particular the Contracting Parties, the Commission and subsidiary bodies shall:

(i) be more cautious when information is uncertain, unreliable, or inadequate;

(ii) not use the absence of adequate scientific information as a reason for postponing or failing to take conservation and management measures; and

(iii) take account of best international practices regarding the application of the precautionary approach, including Annex II of the 1995 Agreement and the Code of Conduct.

¹⁴ [CM22-07](#)

¹⁵ Clark, M.R.; McMillan, P.J.; Anderson, O.F.; Roux, M.-J. (2016). Stock management areas for orange roughy (*Hoplostethus atlanticus*) in the Tasman Sea and western South Pacific Ocean. New Zealand Fisheries Assessment Report 2016/19. 27 p.

¹⁶ Martin Cryer, Tiffany Bock & Simon Nicol. Potential scientific advice for Orange roughy stocks / management units within the Western SPRFMO Area (2017) SC5-DW15_rev2. At <https://www.sprfmo.int/assets/SC5-2017/SC5-DW15-rev2-ORY-assessment-summary.pdf>.

¹⁷ Patrick Cordue. A 2019 Orange Roughy Stock Assessment for Louisville Ridge New Zealand. SC7-DW05. At <https://www.sprfmo.int/assets/2019-SC7/Meeting-Docs/SC7-DW05-A-2019-Orange-Roughy-Stock-Assessment-for-Louisville-Ridge.pdf>.

¹⁸ We are aware that some tuna RFMOs apply an ‘unders and overs’ approach to some stocks. The WCPFC, for instance, allows compensation for overfishing “as an interim measure, and without prejudice to future decisions of the Commission relating to monitoring and responding to compliance with conservation and management measures” provides for compensating for overfishing (but not underfishing) for swordfish and similarly for yellowfin, skipjack and bigeye tuna and Pacific bluefin tuna. WCPFC Conservation and Management for Swordfish Conservation and Management Measure 2009-03, para. 9.

<https://www.wcpfc.int/system/files/booklets/31/CMM%20and%20Resolutions.pdf>, WCPFC 2018-01 Conservation and Management for Bigeye, Yellowfin and skipjack tuna in the Western and Central Pacific Ocean. paras. 30, 39, and see WCPFC Conservation and Management Measure for Pacific Bluefin Tuna CMM 2018-02 para. 2. Note that the maximum underage that a CCM may carry over in any given year shall not exceed 5% of its annual initial catch limit”. Para. 2 and 3.

<https://www.wcpfc.int/system/files/booklets/31/CMM%20and%20Resolutions.pdf>.

ICCAT likewise has implemented this approach. 16-01 TRO Recommendation by ICCAT on a Multi-Annual Conservation and Management Programme for Tropical Tunas.

https://www.iccat.int/Documents/Recs/COMPENDIUM_ACTIVE_ENG.pdf.

But we have been unable to find any implementation by a demersal RFMO, and for good reason: fishing for tuna and other mobile highly migratory species over a large geographic area cannot be extrapolated to fishing for multiple orange roughy stocks in specific locations.

¹⁹ SC-7 Report para. 76.

²⁰ SC-7 Report Para. 76.

²¹ SC-7 Report Para. 70.

²² SC-5 in 2017 said that “A significantly more precautionary approach is recommended if insufficient advancement is made in data collection and stock assessments for the relevant stocks within 2 years. The SC recommends that, within this group, the Louisville Central stock should be prioritised for improved data collection and stock assessment.”

SPRFMO. 2017 Scientific Committee: Report of the 5th Scientific Committee Meeting. Shanghai, China.

23-28 September 2017. At <https://www.sprfmo.int/assets/SC5-2017/SC05-Report-Final-4Oct2017.pdf>.

SC-5 Report, para. 100.

²³ SC-5 Report para. 100.

²⁴ Age data of orange roughy from the central Louisville Seamount Chain in 1995 and 2013-15. SC7-DW20. At <https://www.sprfmo.int/assets/2019-SC7/Meeting-Docs/SC7-DW20-Louisville-Orange-Roughy-Ageing.pdf>.

²⁵ SC-5 Report paras. 83-85.

²⁶ SC-7 Report para. 90.

²⁷ ... and not to authorize bottom fishing activities until such measures have been adopted and implemented.

²⁸ UNGA Resolution 74/18 (19 December 2019), at <https://undocs.org/en/A/RES/74/18>.

206. *Calls upon* States, individually and through regional fisheries management organizations and arrangements with the competence to regulate deep-sea fisheries, to adopt conservation and management measures, including monitoring, control and surveillance measures, on the basis of the best available scientific information, including stock assessments, to ensure the long-term sustainability of deep-sea fish stocks and non-target species and the rebuilding of depleted stocks, consistent with the Guidelines and, where scientific information is uncertain, unreliable or inadequate, to ensure that conservation and management measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species.

²⁹ <https://www.sprfmo.int/assets/2019-SC7/Meeting-Docs/SC7-Doc23-NZ-Annual-Report.pdf> Tables 3, 6.

³⁰ The reported age for wreckfish was over 70 years, and jackass morwong a maximum age of over 41 years for males. https://www.dpi.nsw.gov.au/data/assets/pdf_file/0011/375905/Jackass-Morwong.pdf

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- ³¹ Page 116. https://fs.fish.govt.nz/Doc/5400/BNS_FINAL%2008.pdf.ashx
- ³² Review of Management Controls for the Bluenose Fishery (BNS 1, 2, 3, 7 & 8) in 2016. MPI Discussion Paper No: 2016/16. Para. 3.1. At <file:///C:/Users/Duncan/Downloads/2016-16-Review-of-Management-Controls-for-the-Bluenose-Fishery-.pdf>.
- ³³ SC-4 Report. Page 12. At <https://www.sprfmo.int/assets/Meetings/Meetings-2013-plus/SC-Meetings/4th-SC-Meeting-2016/SC04-report/SC-04-FinalReport-Rev1-25Oct2016.pdf>
- ³⁴ SC-7 Report Para. 49.
- ³⁵ SC-7 Report Para. 49.
- ³⁶ European Union, COMM 8 – Prop 07. At <https://www.sprfmo.int/assets/0-2020-Annual-Meeting/COMM8-2020/Props/COMM8-Prop07-TC-Amendments-to-CMM-03-2019-bottom-fishing-EU.docx>.
- ³⁷ UNGA resolution 72/123 para. 190
- ³⁸ UNGA resolution 71/123 para. 186.
- ³⁹ Recommends that the Commission implement more effective and comprehensive bycatch data collection and reporting, particularly but not limited to dependent and associated species in each fishery and identified species of concern, the collection of sufficient biological data to support the development of reliable stock assessments for all fisheries, and the extension of data collection programmes to include environmental data and other data to assist in estimating potential impacts on non-target species. Recommendation 100(d). The Commission response was to instruct SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.
- ⁴⁰ SC7-DW10_rev1, Ecological Risk Assessment for SPRFMO Deepwater Chondrichthyans, Australia. and SC7-DW11, Ecological Risk Assessment for Teleosts in SPRFMO Demersal Trawl, Midwater Trawl and Demersal Longline Fisheries. Australia. At <https://www.sprfmo.int/assets/2019-SC7/Meeting-Docs/SC7-DW10-rev1-Ecological-risk-assessment-for-SPRFMO-deepwater-chondrichthyans.pdf>.
- ⁴¹ See overview by IDDRI, "Ecologically or biologically significant marine areas (EBSAs): the identification process under the Convention on Biological Diversity (CBD) and possible ways forward. At http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/WP1712_ED_EBSAs.pdf. See CBD Decision XI/17 (2012). Marine and coastal biodiversity: Ecologically or biologically significant marine areas. At <http://www.cbd.int/cop/cop-11/doc/2012-10-24-advanced-unedited-cop11-decisions-en.pdf>.
- ⁴² SC-6 Report, Annex 5, SC Proposed Multi-Annual Work Plan.
- ⁴³ At the third SC meeting, the Secretariat introduced information received from the Secretariat of the Convention on Biological Diversity (CBD) regarding five areas within the Convention Area that meet the CBD criteria for EBSAs.
- ⁴⁴ Secretariat of the Convention on Biological Diversity (2014) Ecologically or Biologically Significant Marine Areas (EBSAs). Special places in the world's oceans. Volume 1: Western South Pacific Region. 104 pages.
- ⁴⁵ The spatial management approach is clearly spelled out in the UNGA resolutions and the FAO Guidelines:
- (1) closing areas where VMEs are known or likely to occur on the basis of the best scientific information available unless bottom fisheries in such areas can be (and are) managed to prevent SAIs on VMEs; and
 - (2) only permitting bottom fishing to take place in an area after conducting a prior impact assessment to determine whether SAIs would occur and any mitigation measures needed, including closures, within the area to ensure that SAIs on VMEs would be prevented; and
- As a complement to these two key requirements, a move-on rule is required to cover those cases where encounters with VMEs occur in spite of the efforts of States and RFMOs to conduct impact assessments and to close areas where VMEs are likely to occur, so that fishing stops in the encounter area, and the area is assessed for closure or otherwise to prevent SAIs on any VMEs found.
- ⁴⁶ The provisions are also an implementation of the UN Fish Stocks Agreement, including its preambular recital that Parties are "[c]onscious of the need to avoid adverse impacts on the marine environment, preserve biodiversity, maintain the integrity of marine ecosystems and minimize the risk of long-term or irreversible effects of fishing operations", the principle in article 5(g) to "protect biodiversity in the marine environment" and to "apply the precautionary approach in accordance with article 6".
- ⁴⁷ Vulnerable marine ecosystems: 14. Vulnerability is related to the likelihood that a population, community, or habitat will experience substantial alteration from short-term or chronic disturbance, and the likelihood that it would recover and in what time frame. These are, in turn, related to the characteristics of the ecosystems

themselves, especially biological and structural aspects. VME features may be physically or functionally fragile. The most vulnerable ecosystems are those that are both easily disturbed and very slow to recover, or may never recover.

15. The vulnerability of populations, communities and habitats must be assessed relative to specific threats. Some features, particularly those that are physically fragile or inherently rare, may be vulnerable to most forms of disturbance, but the vulnerability of some populations, communities and habitats may vary greatly depending on the type of fishing gear used or the kind of disturbance experienced.

16. The risks to a marine ecosystem are determined by its vulnerability, the probability of a threat occurring and the mitigation means applied to the threat.

Significant adverse impacts

17. Significant adverse impacts are those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts should be evaluated individually, in combination and cumulatively.

18. When determining the scale and significance of an impact, the following six factors should be considered:

- i. the intensity or severity of the impact at the specific site being affected;
- ii. the spatial extent of the impact relative to the availability of the habitat type affected;
- iii. the sensitivity/vulnerability of the ecosystem to the impact;
- iv. the ability of an ecosystem to recover from harm, and the rate of such recovery;
- v. the extent to which ecosystem functions may be altered by the impact; and
- vi. the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life-history stages.

⁴⁸ E.g. FAO Guidelines para 42(v) “Structural complexity - an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features. In these ecosystems, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms.”