



## Recommendations for the Review of the NEAFC Regulations on Bottom Fishing

Deep Sea Conservation Coalition, Iceland Nature Conservation Association, Pew Environment Group, Seas at Risk, WWF

June 2012

As stated in the Process for the Review of the NEAFC Regulation on Bottom Fishing adopted by the Commission at its Annual Meeting in November 2011 (AM 2011-75), the objective of the review is to assess current NEAFC measures on regulating bottom fishing and, if required, to make recommendations to the Commission, in order to ensure alignment between the NEAFC regulations and the measures called for in the most recent relevant UNGA Resolutions (e.g. 64/72, paragraphs 119, 122) and the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas. With these terms of reference in mind, we have provided the following comments, observations and recommendations.

### Summary of Key Recommendations

1. Additional species beyond coral and sponge species that qualify as Vulnerable Marine Ecosystem (VME) indicator species under the International Guidelines should be identified and management measures adopted accordingly;
2. Prior impact assessments should be required for fisheries in existing bottom fishing areas and for exploratory fisheries in new fishing areas and include an assessment of impacts on low-productivity fish species as well as VMEs;
3. Additional area closures where VMEs are known or likely to occur should be adopted unless the bottom fisheries in these areas can be managed to prevent significant adverse impacts;
4. Management measures based on stock assessments are urgently needed to ensure the long-term sustainability of deep sea fish stocks and species, including target and non-target species, and the rebuilding of depleted stocks;
5. The move-on rule should be revised, or alternative measures adopted, to ensure that significant adverse impacts on VMEs are prevented;
6. Robust and effective measures for data reporting, monitoring, control, and compliance need to be adopted for bottom fisheries in the NEAFC regulatory area that ensure full compliance with the NEAFC bottom fisheries regulations;
7. Fishing for deep-sea species should not be authorized until the provisions of the UN General Assembly resolutions and International Guidelines are fully incorporated into NEAFC regulations and implemented in practice;
8. NEAFC must establish a clear process for conducting the Review, open to the participation of stakeholders, including through holding an Extraordinary Meeting to facilitate this.

## **1. Consistency of the NEAFC regulations with the UN General Assembly resolutions and the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas**

NEAFC has adopted a number of important and significant measures to implement the UN General Assembly resolutions and the International Guidelines over the past eight years. These include the adoption of the closures along the Mid Atlantic Ridge and in respect of several seamounts in the NEAFC Regulatory Area south of Iceland, and the closures on the Hatton and Rockall Banks to protect VMEs. In addition, the adoption in 2010 of NEAFC regulations to require prior impact assessments of bottom fisheries in “new” fishing areas, incorporating most (though not all) of the criteria for conducting impact assessments set out in the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas has been a significant step in bringing the NEAFC regulations into accordance with the UNGA resolutions.

Additionally, the NEAFC prohibition on directed fisheries for 17 species of deep-sea sharks adopted in 2011 (set to expire in 2012) was an important step forward toward implementing the provisions of the International Guidelines and UNGA resolutions in regard the sustainability of deep-sea fisheries. These prohibitions should be extended indefinitely at the Annual Meeting of NEAFC in 2012.

However, there are a number of areas where the NEAFC regulations require strengthening in order to be fully in line with the UN General Assembly resolutions and the International Guidelines. These include the following:

### **1.1 Identification of VMEs and VME indicator species**

While there is a clear recognition by NEAFC that cold-water corals and sponges are vulnerable to damage by deep-sea bottom fishing, many more species found in the NEAFC area are also likely to meet the criteria established for VMEs in the International Guidelines. NEAFC needs to expedite the process by identifying the full range of species and ecosystems vulnerable to deep-sea fishing and establishing protective measures accordingly.

### **1.2 Impact assessments**

Impact assessments for bottom fisheries in existing fishing areas need to be conducted. Paragraph 119(a) of UNGA resolution 64/72 calls on States and RFMOs to conduct impact assessments for all bottom fisheries and to “ensure that vessels do not engage in bottom fishing until such assessments have been carried out”. Until comprehensive impact assessments are conducted for fisheries operating in these areas, NEAFC is not in a position to know whether the fisheries can be managed to ensure that significant adverse impacts to VMEs will be prevented and what measures would be required. In addition, exploratory fisheries should only be allowed after an impact assessment is conducted consistent with the International Guidelines. Moreover, the impact assessments need to address the impacts of bottom fisheries on low-productivity fish species in addition to VMEs. Articles 3, 4, and 5 and Annex 5 of the Consolidated text of all NEAFC recommendations should be amended to incorporate these requirements consistent with the UNGA resolutions and the International Guidelines.

### **1.3 Area closures**

Precautionary area closures need to be put in place in areas where VMES are known or likely to occur unless conservation and management measures are in place to prevent significant adverse impacts to bring the NEAFC measures into line with paragraphs 83(c) and 119(b) of resolutions 61/105 and 64/72. For example, there are no closed areas in place to protect VMEs in the Barents Sea Loophole. It is not clear whether any analysis has been done to determine whether VMEs are likely to occur in this area.

Moreover, VMEs are likely to occur in many of the areas which fall within “existing” fishing areas (Yesson *et al.* 2012). Until prior impact assessments are conducted to determine whether bottom fisheries in these areas can be managed to prevent significant adverse impacts, areas where VMEs are known or likely to occur should be closed to bottom fishing as called for in the UNGA resolutions.

#### **1.4 Long-term sustainability of deep-sea fisheries**

All deep-sea fish species regulated by NEAFC are either known or likely to be depleted. Moreover, in response to NEAFC requests, ICES has indicated substantial concerns over under-reporting or mis-reporting of catch and the quality of the VMS information. ICES has further indicated that for the most part, basic information such as the status and range of deep-sea stocks essential to determine sustainable levels of exploitation is not available for virtually all deep-sea species regulated by NEAFC. A recent scientific study, one of the very few of its kind, concluded that the impact of deep-sea fishing on associated and dependent deep-sea species is likely to cover a much broader and deeper area than the area (the “footprint”) in which the fishing actually takes place (Bailey *et al.* 2009).

Although ‘directed’ fisheries for 17 species of deep-sea sharks have been prohibited for one year since the beginning of this year, deep-sea sharks will still be taken as bycatch in mixed species deep-sea fisheries. Several species of deep-sea sharks - leafscale gulper sharks, gulper sharks and Portuguese dogfish – are classified as endangered or critically endangered by the IUCN Shark Specialist Group (Gibson *et al.* 2008); these species will continue to be threatened with extinction unless the bycatch of these species can be prohibited in the areas where they occur.

There are no management measures in place to ensure the sustainability of target or bycatch species, and the rebuilding of depleted deep-sea stocks (both target and non-target), as is called for in UNGA resolution 64/72 119(d) other than the effort limitation measures adopted in 2004 and 2006. NEAFC has not established catch limits for any of the deep-sea species regulated by NEAFC other than the prohibition on directed fisheries for deep-sea sharks. The UN General Assembly has called on States and RFMOs to “adopt conservation and management measures on the basis of stock assessments and the best available scientific information, to ensure the long-term sustainability of deep sea fish stocks and non-target species, and the rebuilding of depleted stocks” and that “where scientific information is uncertain, unreliable, or inadequate, ensure that conservation and management measures are established consistent with the precautionary approach, including measures to ensure that fishing effort, fishing capacity and catch limits, as appropriate, are at levels commensurate with the long-term sustainability of such stocks.”

This is an area where significant improvements to the management of deep-sea fisheries by NEAFC are urgently needed, including regulations to ensure the long-term sustainability of target and non-target stocks and species, and the rebuilding of depleted stocks, and that management measures be established on the basis of the precautionary approach where scientific information is uncertain, unreliable, or inadequate, as is the case with deep-sea species in the NEAFC Regulatory area (NEAFC RA).

#### **1.5 The Move-on rule**

The move-on rule is the only measure NEAFC has adopted for the protection of VMEs in existing fishing areas. Yet the move-on rule is widely recognized to be a reactionary not a precautionary measure for protecting VMEs and has been criticized by ICES and others (e.g. Rice 2010; Rogers and Gianni 2010; Auster *et al.* 2011). The 2010 Report of the joint NAFO/ICES Working Group on Deep-Sea Ecology (WGDEC), which reviewed this issue in depth states “*The damage caused by deep-sea bottom fishing activities to marine habitats and species, in particular VME indicators, is likely to remain unrecovered for decades to centuries. Reactionary management strategies such as the*

*“encounter clauses” and “move-on rules” are of limited benefit to prevent significant adverse impacts because they still allow damage to occur which will gradually degrade ecosystems over time.”*

The Working Group further recommended that *“because the current encounter and move-on rules would still permit pervasive and cumulative destruction of VMEs in the NAFO and NEAFC management areas”, a new management strategy needs to be developed based on the following principles:*

*“1] Bottom habitats at fishable depths within the North Atlantic are not inhabited by one fauna that ranges over the whole region, thus there can be no uniform “rule”;*  
*2] exploratory fishing with bottom contact gear in the deep sea is unacceptable because of the long-term damage such gear does to bottom habitats;*  
*3] exploratory fishing with bottom contact gear is unnecessary because modern data management tools and computer modeling techniques can provide a mechanism for making predictions about where vulnerable marine ecosystems are likely to be present; and*  
*4] the burden of proof regarding whether any particular area of the seabed can be fished with bottom contact gear without causing damage to VMEs must reside with the entity proposing to do the fishing.”*

For these and similar reasons, UN General Assembly resolution 64/72 paragraph 119(c) calls on States to establish and implement appropriate protocols for VME encounters, including definitions of what constitutes evidence of an encounter with a vulnerable marine ecosystem, in particular threshold levels and indicator species, based on the best available scientific information and the results of impact assessments. We would, therefore, urge NEAFC to require prior impact assessments and then, on the basis of the results of the assessments, revise the regulation regarding the move-on rule as recommend by the 2010 report of the International Programme on the State of the Oceans (Rogers and Gianni 2010. p. 9):

- *“The trigger thresholds for encounter rules should be based on rigorous scientific analyses of relationships between by-catch and the presence of VMEs within the geographic region in which bottom fishing activities take place. Such analyses can be undertaken on fisheries-independent catch data or on fisheries data in combination with scientific surveys or other information. Thresholds should be specific to particular groups or size-classes of organisms and to the fishing gear and methods used.*
- *Evidence of by-catches of VME indicator species at levels indicated by scientists to represent a likely encounter with a VME should trigger an immediate (and at least temporary) cessation of fishing and closure of the area until an assessment of the area has been conducted and a determination has been made as to whether fishing can be resumed in the area without SAIs on VMEs.*
- *Move-on rules should ensure that subsequent to an encounter there is no risk of SAIs occurring on identified VMEs as a result of continuing fishing activities. Move-on distances should reflect the accuracy with which the location of a VME has been identified.”*

### **1.6 Authorization to fish**

Paragraph 120 of UNGA resolution 64/72 calls on *“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 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”*

While NEAFC has made substantial progress in the implementation of the UNGA resolutions with respect to area closures and protection of VMEs, we would note that the provisions of UNGA resolution 61/105 paragraph 83 and UNGA resolution 64/72 paragraph 119 have not been fully adopted or implemented in the NEAFC RA and yet bottom fisheries in the region continue to be authorized to proceed. In order for the NEAFC regulation of bottom fisheries to be fully consistent with the UNGA resolutions and International Guidelines, bottom fisheries in the NEAFC RA should not be authorized until the provisions of these instruments are fully incorporated into the NEAFC regulations and implemented in the management of bottom fisheries in the NEAFC area.

## **2. Compliance and Enforcement**

It is important that NEAFC conduct a review of compliance with its bottom fishing regulations. Several questions come to mind:

a. NEAFC established a requirement under the 'move-on' rule that vessels must report any encounters with VMEs that result in 'catches' greater than 60 kg of coral or 800 kg of sponges. No encounters have ever been reported. Is this because no encounters have ever occurred or have the reporting requirements not been met?

b. Are there mechanisms in place to monitor closed areas and ensure that no bottom fishing occurs in the closed areas? Have they been reviewed by PECCOE to ensure that they are effective? Has there been any bottom fishing in the closed areas and, if so, what enforcement action was taken to ensure that sanctions applicable in respect of violations were sufficient to deprive offenders of the benefits accruing from their illegal activities and effective in securing compliance and discouraging violations wherever they occur as is required under Article 19.2 of the UN Fish Stocks Agreement? How can the relevant authorities distinguish between mid-water (e.g. mid-water trawling or long-lining) and bottom fishing in an area?

c. As mentioned previously, ICES has indicated that under-reporting and mis-reporting of deep-sea catches is a major problem in the NEAFC area. What is being done to correct this? What steps have NEAFC Contracting Parties taken to monitor and ensure compliance with reporting requirement?

## **3. Process for an Effective NEAFC Review**

We are concerned that NEAFC has not yet established a clear and effective process for conducting a thorough Review of the bottom fishing regulations for consistency with the UNGA resolutions and International Guidelines. Aside from the one-day symposium on 25 June, it is not clear what process NEAFC has established to conduct the Review. We would recommend that NEAFC hold an Extraordinary Meeting devoted to the Review based on the input from PECMAS, PECCOE and other relevant meetings and fora.

We would also recommend that the Extraordinary Meeting, as well as any preparatory meetings, be fully transparent and open to stakeholders as laid out in the terms of reference for the Review adopted by NEAFC at its Annual Meeting in 2011. Again we would emphasize that this is consistent with the relevant provisions of the UN Fish Stocks Agreement (Article 14).

## **Conclusion**

Many of the above issues related to the implementation of the UN General Assembly resolutions and the International Guidelines by NEAFC have been raised in the submissions and opening statements to NEAFC over the past several years by WWF, Seas at Risk, the Pew Environment Group and the Deep Sea Conservation Coalition. We would urge NEAFC Contracting Parties to give due

consideration to the recommendations put forward above to amend NEAFC's regulations for bottom fishing.

#### References:

Auster, P. J., K. Gjerde, E. Heupel, L. Watling, A. Grehan and A.D. Rogers. 2011. Definition and detection of vulnerable marine ecosystems on the high seas: problems with the "move-on" rule. ICES Journal of Marine Science 68:254–264.

Bailey, D.M., M.A. Collins, J.D.M. Gordon, A.F. Zuur & I.G. Priede. 2009. Long-term changes in deep-water fish populations in the northeast Atlantic: A deeper reaching effect of fisheries? Proceeding of the Royal Society Biological Sciences, 275: 1965–1969.

Gibson, C., Valenti, S.V., Fordham, S.V., & Fowler, S.L. 2008. The conservation of Northeast Atlantic chondrichthyans: report of the IUCN shark specialist group Northeast Atlantic red list workshop, IUCN Species Survival Commission Shark Specialist Group, Newbury, UK.

ICES.2007. NEAFC request to evaluate the use and quality of VMS data. ICES Advice, Book 9. [www.ices.dk/committe/acom/comwork/report/2008/Special%20Requests/NEAFC%20request%20on%20VMS%20data.pdf](http://www.ices.dk/committe/acom/comwork/report/2008/Special%20Requests/NEAFC%20request%20on%20VMS%20data.pdf)

ICES. 2008a. NEAFC request on identification of vulnerable marine ecosystems, including definitions and assessment of fishing activities that may cause significant adverse impacts on such ecosystems. ICES Advice, Book 9. [www.ices.dk/committe/acom/comwork/report/2008/Special%20Requests/NEAFC%20request%20on%20identification%20of%20vulnerable%20marine%20ecosystems.pdf](http://www.ices.dk/committe/acom/comwork/report/2008/Special%20Requests/NEAFC%20request%20on%20identification%20of%20vulnerable%20marine%20ecosystems.pdf)

ICES. 2009. NEAFC request to evaluate the use and quality of VMS data and records of catch and effort for providing information on the spatial and temporal extent of current deepwater fisheries in the North East Atlantic, ICES Advice 2009, Book 9, 9.3.2.2.

ICES. 2010. Report of the ICES /NAFO Joint Working Group on Deep-Water Ecology (WGDEC). [http://www.ices.dk/reports/ACOM/2010/WGDEC/wgdec\\_final\\_2010.pdf](http://www.ices.dk/reports/ACOM/2010/WGDEC/wgdec_final_2010.pdf)

ICES. 2012a. Standing NEAFC request on vulnerable deep-water habitats in the NEAFC Regulatory Area. Special request, Advice June 2012 [http://www.ices.dk/committe/acom/comwork/report/2012/Special%20Requests/NEAFC\\_Vulnerable\\_deep-water\\_habitats.pdf](http://www.ices.dk/committe/acom/comwork/report/2012/Special%20Requests/NEAFC_Vulnerable_deep-water_habitats.pdf)

ICES. 2012b. Review of NEAFC bottom fisheries regulations. Special request, Advice June 2012 [http://www.ices.dk/committe/acom/comwork/report/2012/Special%20Requests/NEAFC\\_bottom\\_fisheries\\_regulations.pdf](http://www.ices.dk/committe/acom/comwork/report/2012/Special%20Requests/NEAFC_bottom_fisheries_regulations.pdf)

Deep Sea Conservation Coalition. 2011. Review of the implementation of the UNGA resolutions. [http://www.savethehighseas.org/publicdocs/DSCC\\_review11.pdf](http://www.savethehighseas.org/publicdocs/DSCC_review11.pdf)

Pew Environment Group. 2012. Out of the Abyss: Transforming EU Rules to Protect the Deep Sea. (<http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/deep-Out-of-the-Abyss-Final-md.pdf>).

Rice, J. 2010. Review of Progress on Implementation of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas – Experience of RFMO/As with

identifying and protecting VMEs. Discussion paper 2. FAO workshop on implementation of the Deepwater Guidelines, Busan, May 2010.

Rogers, A. & Gianni, M. 2010. The Implementation of UNGA resolutions 61/105 and 64/72 in the management of deep-sea fisheries on the high seas. Report prepared for the Deep-Sea Conservation Coalition. International Programme on the State of the Ocean, London, United Kingdom.  
<http://www.savethehighseas.org/publicdocs/61105-Implementationfinalreport.pdf>

Weaver et al. 2011. The impact of deep-sea fisheries and implementation of the UNGA Resolutions 61/105 and 64/72. Report of an international scientific workshop, National Oceanography Centre, Southampton, 45 pp. <http://hdl.handle.net/10013/epic.37995>

Yesson et al 2012. Global habitat suitability of cold-water octocorals. *Journal of Biogeography*, doi:10.1111: 1-15.

## ANNEX

### UNGA resolution 64/72, paragraphs 119 and 120

119. *Considers* that, on the basis of the review carried out in accordance with paragraph 91 of resolution 61/105, further actions in accordance with the precautionary approach, ecosystem approaches and international law are needed to strengthen the implementation of paragraphs 80 and 83 to 87 of resolution 61/105, and in this regard calls upon regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries, States participating in negotiations to establish such organizations or arrangements, and flag States to take the following urgent actions in areas beyond national jurisdiction:

(a) Conduct the assessments called for in paragraph 83 (a) of resolution 61/105, consistent with the Guidelines, and ensure that vessels do not engage in bottom fishing until such assessments have been carried out;

(b) Conduct further marine scientific research and use the best scientific and technical information available to identify where vulnerable marine ecosystems are known to occur or are likely to occur and adopt conservation and management measures to prevent significant adverse impacts on such ecosystems consistent with the Guidelines, or close such areas to bottom fishing until conservation and management measures have been established, as called for in paragraph 83 (c) of resolution 61/105;

(c) Establish and implement appropriate protocols for the implementation of paragraph 83 (d) of resolution 61/105, including definitions of what constitutes evidence of an encounter with a vulnerable marine ecosystem, in particular threshold levels and indicator species, based on the best available scientific information and consistent with the Guidelines, and taking into account any other conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems, including those based on the results of assessments carried out pursuant to paragraph 83 (a) of resolution 61/105 and paragraph 119 (a) of the present resolution;

(d) Adopt conservation and management measures, including monitoring, control and surveillance measures, on the basis of stock assessments and the best available scientific information, 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, ensure that conservation and management measures are established consistent with the precautionary approach, including measures to ensure that fishing effort, fishing capacity and catch limits, as appropriate, are at levels commensurate with the long-term sustainability of such stocks;

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 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.

### UNGA resolution 61/105 paragraph 83

83. *Calls upon* regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries to adopt and implement measures, in accordance with the precautionary approach, ecosystem approaches and international law, for their respective regulatory areas as a matter of priority, but not later than 31 December 2008:

(a) To assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed;

(b) To identify vulnerable marine ecosystems and determine whether bottom fishing activities would cause significant adverse impacts to such ecosystems and the long-term sustainability of deep sea fish stocks, inter alia, by improving scientific research and data collection and sharing, and through new and exploratory fisheries;

(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 conservation and management measures have been established to prevent significant adverse impacts on vulnerable marine ecosystems;

(d) To require members of the regional fisheries management organizations or arrangements to require vessels flying their flag to cease bottom fishing activities in areas where, in the course of fishing operations, vulnerable marine ecosystems are encountered, and to report the encounter so that appropriate measures can be adopted in respect of the relevant site;