

The future of deep-sea fisheries: Commission's proposal and overall regulatory framework

Hearing on Deep Sea species
Toward a Sustainable Fishery
Committee on Fisheries of the European Parliament
19 February 2013

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deepsea
conservationcoalition

The logo for the Deep Sea Conservation Coalition features the words "deepsea" in a bold, dark blue font, with "conservationcoalition" in a lighter blue font below it. A stylized, white, wavy graphic element resembling a wave or a ribbon curves behind the text.

Members include





Review of the implementation of the provisions of UN GA resolution 61/105 related to the management of high seas bottom fisheries

Submission to the UN Division for Oceans Affairs and the Law of the Sea

FAO FISHERIES AND AQUACULTURE TECHNICAL PAPER 522

Worldwide review of bottom fisheries in the high seas

FAO

PARLEMENT EUROPEEN
Direction Générale Politiques Internes de l'Union

ATELIER

Département thématique
Politiques structurelles et de Cohésion

GESTION DES STOCKS D'EAU PROFONDE

PÊCHE

Décembre 2007

DSCC
UN FAO
IUCN
(CBD, EP, UNEP, IOC)

High Seas Bottom Trawl Fisheries and their Impacts on the Biodiversity of Vulnerable Deep-Sea Ecosystems: Options for International Action

Matthew Gianni

- UN Fish Stocks Agreement & UN FAO Code of Conduct negotiations (1993-1995)
- 10th & 11th Deep-Sea Biology Symposia
- 4th 6th & 10th meetings of the United Nations Informal Consultative Process Oceans and Law of the Sea
- UN FAO Expert Consultations Deep Sea Fisheries
- PECH Committee European Parliament April 2004; November 2007
- Commercial fisherman 10+ years (1978-1988)



UN General Assembly negotiations

ISSUES: Sustainability of fisheries, protection of biodiversity and the marine environment, equity, implementation of international law

CONCERNS:

Deep sea different than coastal/continental shelf and open ocean pelagic fisheries and ecosystems

Slow growing, long-lived, late maturing, low fecundity species

Biology of deep-sea species and ecosystems poorly known, challenging to study

Endemic, rare, vulnerable species and habitats

Highly vulnerable to overexploitation/damage & slow to recover

UN General Assembly resolutions

- Ten years of extensive debate at the UN prompted by scientists and NGOs
- Four+ UNGA resolutions (59/25, 61/105, 64/72, 66/68)
- Core Agreement: Prevent “Significant Adverse Impacts” on “Vulnerable Marine Ecosystems” and ensure long-term sustainability of deep-sea species through:
 - Conducting Prior Environmental Impact Assessments
 - Establishing Precautionary Area Closures where VMEs are known or likely to occur
 - Ensure Sustainability of Deep Sea Fish Stocks, including non-target species w/ stock assessments and the rebuilding of depleted stocks
 - Move on Rule

Adopt and Implement OR ELSE NOT AUTHORIZE DEEP-SEA FISHING

FRAMEWORK FOR INTERNATIONAL ACTION

UNCLOS

- Articles 117-119: the duty to cooperate and take such measures as may be necessary for the conservation of the living resources of the high seas
- Article 192: the obligation to “protect and preserve the marine environment”
- Article 194.5: the duty to “protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life”
- Article 206: “When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, **assess the potential effects of such activities on the marine environment**”

FRAMEWORK FOR INTERNATIONAL ACTION

1995 UN FISH STOCKS AGREEMENT

Articles 5 & 6

- Prevent or eliminate overfishing and excess fishing capacity [5(h)]
- Assess the impacts of fishing...on target stocks and species belonging to the same ecosystem [5 (d)]
- Minimize bycatch, waste and discards and the impact of fishing on associated or dependent species, in particular endangered species, through *inter alia* the use of selective, environmentally safe fishing gear [5(f)]

UN FRAMEWORK FOR INTERNATIONAL ACTION UN FISHERY AGREEMENT Articles 5 & 6

- Protect biodiversity in the marine environment [5(g)]
- Protect habitats of special concern [6.3]
- Apply the precautionary approach widely to the conservation and management of fish stocks in order to protect and preserve the marine environment.
- States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information cannot be used as a reason for postponing or failing to take conservation and management measures [Articles 6.1, 6.2]

UN FSA

- Article 7: establish “compatible” measures on both high seas and within national waters on straddling stocks
- Many/Most deep-sea fish stocks exploited in the NE Atlantic are known to be or likely to be straddling fish stocks

2008 International Guidelines for the Management of Deep-Sea Fisheries in the High Seas (FAO Guidelines)

Internationally negotiated standards & criteria for:

- Conducting Impact Assessments (paragraph 47)
- Identifying Vulnerable Marine Ecosystems (paragraph 42 and Annex)
- Determining Significant Adverse Impacts (paragraphs 16-20)

Incorporated into UN General Assembly resolution 64/72 (2009)



Summary: Criteria for conducting Impact Assessments in deep-sea fisheries
Paragraph 47 International Guidelines Deep-Sea Fisheries in the High Seas

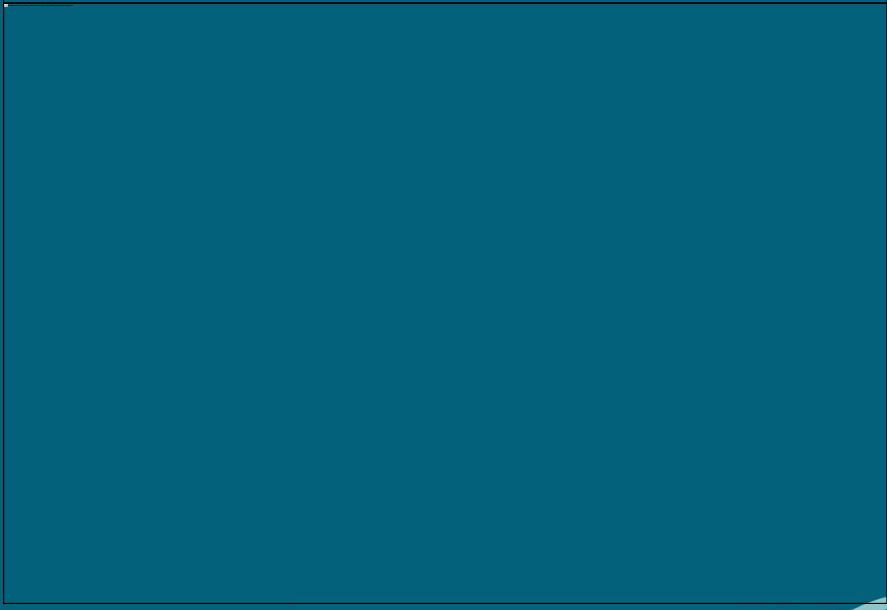
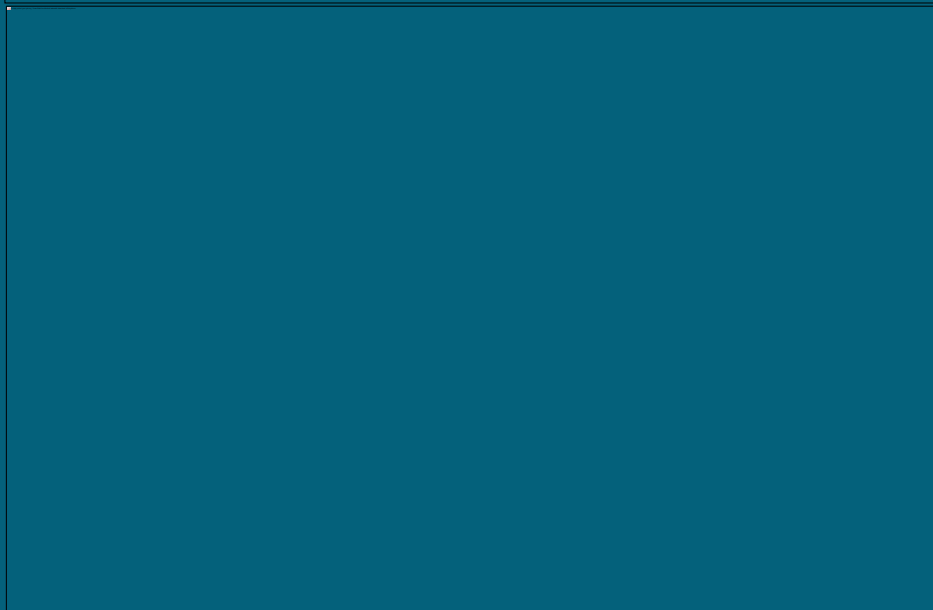
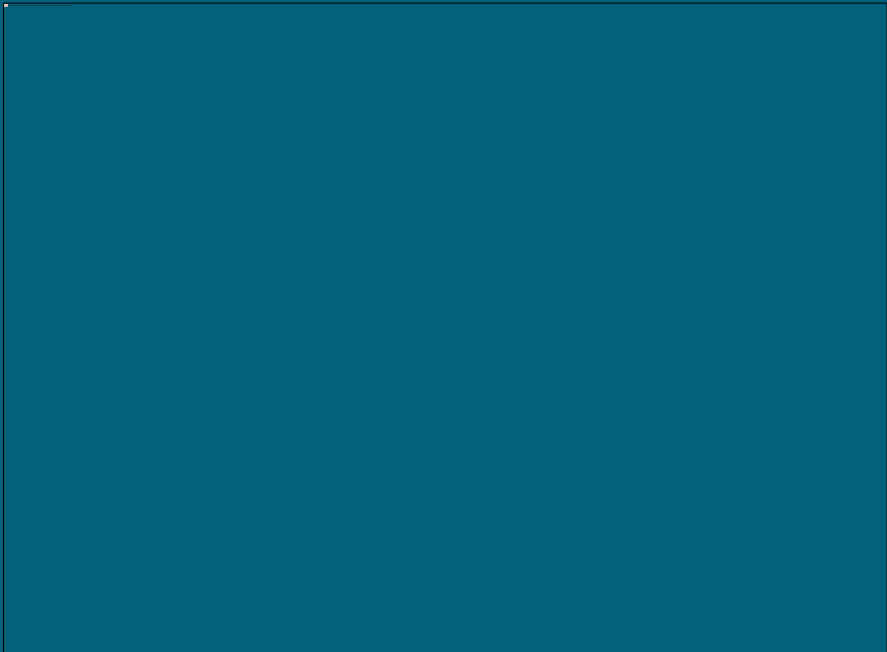
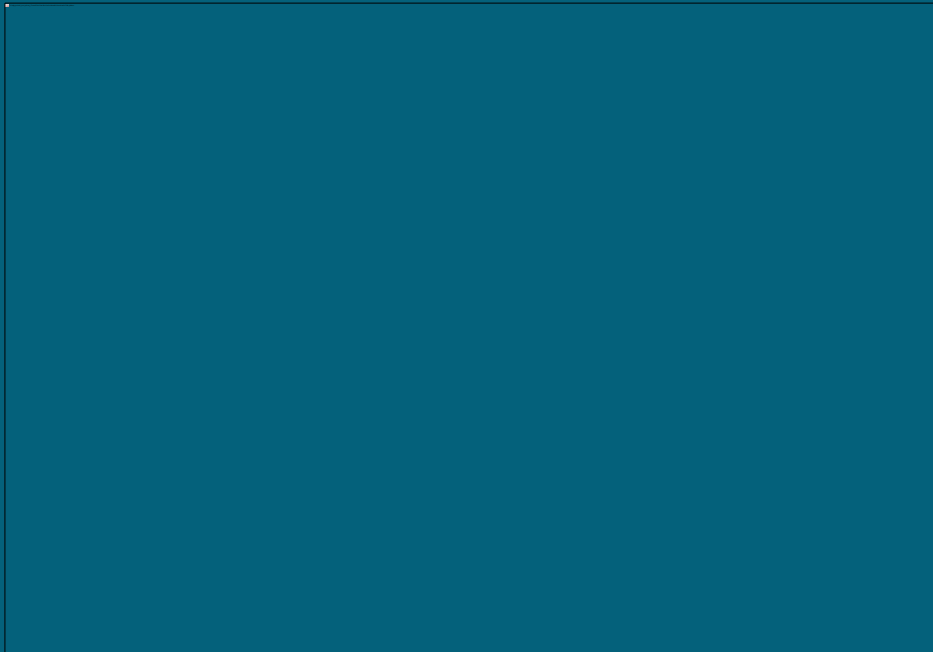
- Determine area where fishing will occur, gear types, likely catch and bycatch etc (fishery plan)
- baseline information on ecosystems, habitats and communities in the fishing area
- identification, description and mapping of VMEs in fishing area
- Data and methodology to assess impacts, address gaps and uncertainties in the information
- identification, description and evaluation of occurrence, scale and duration of likely impacts, including cumulative impacts on low productivity fish and VMEs
- risk assessment to determine which impacts are likely to be significant adverse impacts
- Mitigation, management and monitoring measures to prevent significant adverse impacts on VMEs and ensure long term conservation and sustainable utilization of low-productivity fish species

EU regulations to date

- Council Regulation 2347/2002: deep-sea access regime; beginning of quotas for DSF
- Council Regulation 1568/2005: Prohibits bottom trawling and gillnet fishing (below 200m) around the Azores, Canaries and Madeira Islands to protect deep-sea ecosystems
- Council Regulation 734/2008: Implements UNGA resolutions for EU fleets in high seas areas where no RFMO is in place
- Council Regulation 43/2009: Prohibits bottom gillnet fishing > 600m in EU waters

Science & Deep-Sea Bottom Trawling

- UNEP 2004: “Active gear that comes into contact with the sea floor is considered the greatest threat to cold-water coral reefs and includes bottom trawls and dredges.”
- ICES 2007: “the impact of bottom trawl is far more detrimental to the seabed than static gear”
- ICES 2008: “The primary methods of fishing within the NEAFC area include bottom trawling by otter trawl, pelagic trawling, pelagic fishing by seine net, longlining, gillnetting, tangle netting, and the use of traps... Any gear that has bottom contact has the potential to damage vulnerable deep-water habitats. The degree of impact depends on the type of gear, the degree of contact with the seabed and the frequency of contact. Thus, even bottom gear with a low potential for damage per deployment can potentially cause significant impact if used intensively. Of the types of fishing listed above, the greatest instantaneous physical impact on sensitive habitats is likely to be caused by towed otter trawls...”
- UNEP 2010: “Mobile fishing gear that contacts the seabed, particularly trawling, is the fishing apparatus that poses the greatest threat to deepwater sponge grounds.”
- ICES 2002: “ICES advises that the only proven method of preventing damage to deep-water biogenic reefs from fishing activities is through spatial closures to towed gear that potentially impacts the bottom.”



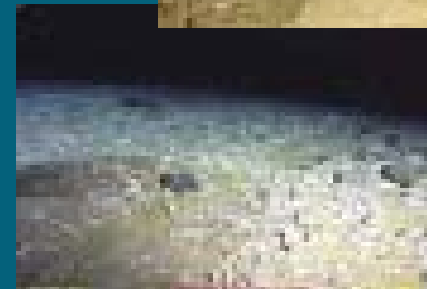
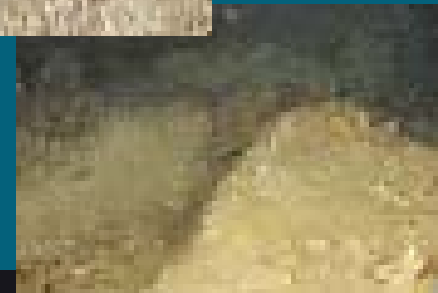
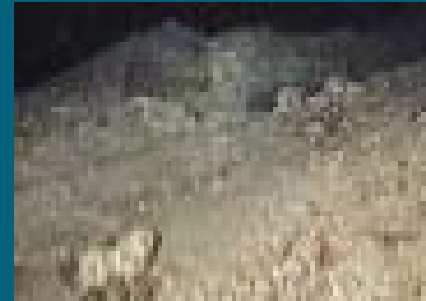
Selection of photos from Hatton Bank, Pobie Bank Reef, Solan Bank Reef, East Rockall Bank and Anton Dohrn Seamount: Areas proposed by Scottish government as SACs.
<http://www.scotland.gov.uk/News/Releases/2012/11/SAC02112012>



UNEP 2004 (Freiwald et al)



- **Bottom trawls have the largest destructive impact of any fishing gear on the seabed in general and especially on coral ecosystems**



Deep-sea demersal fish species richness in the Porcupine Seabight, NE Atlantic Ocean: global and regional patterns. Imants G. Priede, Jasmin A. Godbold, Nicola J. King, Martin A. Collins, David M. Bailey & John D. M. Gordon. *Marine Ecology* 31 (2010)

Study period 1977-1989 & 1997-2002

77 species at fishable depths. Average decline in fish abundance: 69%

EU sets catch limits for only 14 of the 77 species (Council Reg 1262/2012)

Alepocephalus agassizii	Cottunculus thomsonii	Malacocephalus laevis
Alepocephalus australis	Deania calcea	Merluccius merluccius
Alepocephalus bairdii	Dipturus nidarosiensis	Microchirus variegatus
Alepocephalus productus	Echiodon drummondii	Molva dypterygia
Alepocephalus rostratus	Epigonus telescopus	Molva macrophthalma
Antimora rostrata	Etmopterus spinax	Mora moro
Aphanopus carbo	Gaidropsarus argentatus	Myxine ios
Apristurus laurussonii	Gaidropsarus macrophthalmus	Neocyttus helgae
Argentina silus	Galeus melastomus	Neoraja caerulea
Argentina sphyraena	Galeus murinus	Nezumia aequalis
Bathypterois dubius	Glyptocephalus cynoglossus	Notacanthus bonaparte
Beryx decadactylus	Guttigadus latifrons	Notacanthus chemnitzii
Caelorinchus caelorhincus	Halargyreus johnsonii	Pachycara crassiceps
Caelorinchus labiatus	Halosauropsis macrochir	Paraliparis hystrix
Cataetyx alleni	Halosaurus johnsonianus	Phycis blennoides
Cataetyx laticeps	Helicolenus dactylopterus dactylopterus	Polyacanthonotus rissoanus
Centrophorus squamosus	Hoplostethus atlanticus	Rajella bigelowi
Centroscymnus coelolepis	Hoplostethus mediterraneus mediterraneus	Rajella fyllae
Chimaera monstrosa	Hydrolagus mirabilis	Rhinochimaera atlantica
Conocara macropteron	Ilyophis blachei	Rouleina attrita
Conocara murrayi	Lepidion eques	Scymnodon ringens
Coryphaenoides carapinus	Lepidorhombus boscii	Spectrunculus grandis
Coryphaenoides guentheri	Lepidorhombus whiffiagonis	Synphobranchus kaupii
Coryphaenoides mediterraneus	Leucoraja circularis	Trachyrincus murrayi
Coryphaenoides rupestris	Lophius piscatorius	Trachyrincus scabrus
	Lycodes terraenovae	Trachyscorpia cristulata echinata

- Orange roughy
- Blue ling
- Greater forkbeard
- Black scabbardfish
- Roundnose grenadier
- Alfonsinos
- Leafscale gulper shark
- Portuguese dogfish
- Birdbeak dogfish
- Velvet belly
- Blackmouth catshark (Blackmouth dogfish)
- Mouse catshark
- Knifetooth dogfish
- Deep-water catsharks

100% outside safe biological limits – RNG, BSF, BL

possible exceptions



Public interest

- Avaaz petition (September 2011 – 750,000 signatures)
- Scientists' statements (2003, 2004, 2009) calling for a moratorium on deep sea bottom trawling on the high seas
- Supermarkets changing purchasing policies for deep-sea species
- Ocean Elders - Letter from Richard Branson to UK Minister Richard Benyon
- Stakeholders Statement February 2013 (500 signatures NGOs and scientists)
- Media
- 2015 - UN General Assembly review deep-sea fisheries

DSCC recommendations for amendments to COM proposal

- Require impact assessments for all deep-sea fisheries (bottom fisheries in all deep-sea areas)

Compatibility and coherence with Council Regulation 734/2008; UNGA resolutions 61/105 & 64/72 and UN Fish Stocks Agreement

- Close areas to bottom fishing where VMEs are known or likely to occur unless measures are in place to prevent SAIs

- Manage the catch of all deep-seas species, including non-target species
- No fishing opportunities where lack of sufficient data
- measures to prevent the catch/bycatch of most vulnerable species
- Phase out of deep-sea bottom trawl and bottom gillnet fishing

Compatibility with Article 5 and Annex I of the UN Fish Stocks Agreement and paragraph 119(d) of UNGA resolution 64/72

Coherence with Council Regulations 1568/2005 and 43/2009

- Depth based definition of deep-sea fisheries in addition to species based definition

200 meters

- ICES: Lophelia (cold-water coral) reefs found mainly between 200-1000m and “provide a shelter for hundreds of marine species”
- DeepFishman: deep-water species be defined as those which spend a significant part of their life-cycle at depths >200 m and have 50% or more of their adult biomass occurring at depths >200m.



Document d'information sur la proposition [COM 2012 (371)] de la Commission pour l'adoption d'un règlement établissant des conditions spécifiques pour la pêche des stocks d'eau profonde dans l'Atlantique du Nord-Est, ainsi que des dispositions relatives à la pêche dans les eaux internationales de l'Atlantique du Nord-Est.

L'Union européenne (UE) possède l'une des flottes de pêche d'eau profonde les plus importantes au monde. La science a déjà amplement prouvé que la pêche au chalut de fond en eau profonde constitue la plus grande menace directe qui pèse sur la biodiversité et les écosystèmes d'eau profonde, parmi lesquels les récifs coralliens d'eau froide, les champs d'éponge et les monts sous-marins, et qu'elle entraîne un grave déclin des populations de poissons d'eau profonde.

L'Assemblée générale des Nations unies (AGNU) a adopté une série de résolutions – notamment les résolutions nos 61/105 (paragraphe 83) et 64/72 (paragraphe 119-120) – engageant les pays qui pratiquent la pêche en eau profonde à appliquer de toute urgence un train de mesures spécifiques visant à gérer la pêche profonde en haute mer, afin de prévenir les dommages causés aux écosystèmes marins vulnérables et de garantir la durabilité des pêcheries – ou en vue d'interdire une pêche de ce type. De plus, un ensemble de directives internationales sur la gestion de la pêche profonde en haute mer a été négocié et adopté dans le cadre de l'Organisation des Nations unies pour l'alimentation et l'agriculture (FAO), puis a été intégré aux résolutions de l'AGNU. Les mesures demandées par les résolutions de l'AGNU et par les directives internationales de la FAO se basent sur des dispositions clés en matière de conservation qui figurent dans l'Accord des Nations unies sur les stocks de poissons de 1995, et notamment sur les dispositions qui exigent l'évaluation de l'impact de la pêche sur les écosystèmes, une gestion de la pêche visant à protéger la biodiversité et les habitats particulièrement menacés, une diminution des impacts de la pêche sur les espèces non ciblées, une garantie de la durabilité des stocks ciblés et de la reconstitution des stocks appauvris, l'application d'une attitude prudente lorsque les informations sont lacunaires, et le refus de prendre l'absence d'informations scientifiques adéquates comme excuse pour retarder ou éviter la mise en place de mesures de conservation et de gestion.

En réaction à la résolution no 61/105 de l'AGNU, l'UE a adopté un règlement spécifique qui interdit, entre autres, l'utilisation d'engins de fond dans les zones de haute mer non réglementées par une organisation régionale de gestion de la pêche (ORGP) sans que l'évaluation préalable des impacts n'ait été réalisée, et qui impose la fermeture des pêcheries de fond dans les zones où l'on sait que des écosystèmes marins vulnérables se trouvent ou sont susceptibles de se trouver, à moins que la pêche ne puisse être gérée de façon à éviter qu'elle n'ait des effets néfastes notables sur ces écosystèmes [règlement (CE) n° 734/2008]. En 2005, l'UE a également interdit l'utilisation de tout filet maillant et chalut de fond à des profondeurs supérieures à 200 mètres dans les eaux entourant les îles de Madère, des Açores et des Canaries, afin de protéger les écosystèmes d'eau profonde des effets néfastes des engins de pêche [règlement (CE) n° 1568/2005].

La proposition de la Commission européenne de remanier le règlement relatif à la pêche profonde dans les eaux communautaires et internationales de l'océan Atlantique Nord-Est est une étape encourageante pour la protection du milieu marin et la transformation de la pêche profonde en une pêche durable. La proposition comprend un certain nombre d'éléments positifs, parmi lesquels :

- une élimination progressive des chaluts de fond et des filets maillants de fond ciblant les espèces d'eau profonde (article 9),
- une obligation de réaliser l'évaluation des impacts, sur base des avis scientifiques, préalablement à l'ouverture de la pêche aux espèces d'eau profonde dans de « nouvelles » zones de pêche (article 7.2), et
- le renforcement des exigences en matière de collecte de données sur la pêche en eau profonde (article 8).



Captures mémorées à bord d'un chalutier de fond espagnol dans la zone du banc de Hall, Atlantique Nord, à 650 km au nord-ouest de l'Irlande. © Kate Davison / Greenpeace



Unfinished business: a review of the implementation of the provisions of United Nations General Assembly resolutions 61/105 and 64/72, related to the management of bottom fisheries in areas beyond national jurisdiction

Deep Sea Conservation Coalition
September 2011

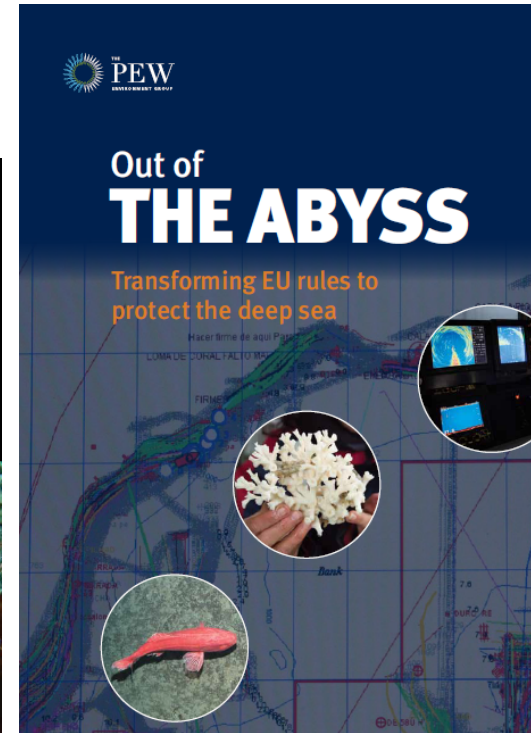
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www.savethehighseas.org

Publications

The impact of deep-sea fisheries and implementation of the UNGA Resolutions 61/105 and 64/72

Report of an international scientific workshop



Out of THE ABYSS

Transforming EU rules to protect the deep sea

The Implementation of UNGA Resolutions 61/105 and 64/72 in the Management of Deep-Sea Fisheries on the High Seas

A report from the International Programme on the State of the Ocean
Dr Alex D. Rogers
Matthew Gianni

MAY 2010

ipso
STATE OF THE OCEAN

DSCC

The International Programme on the State of the Ocean (ipso) brings together world experts in the science, socio-economic and governance of marine ecosystems to identify new frontiers in shaping the capacity of the Global Ocean to support life and human societies on Earth.

ipso will use this knowledge to identify solutions to address the health of the Ocean, to aid to sustain environmental security and benefits for the present and future generations. The programme will communicate its findings to the public, industry and policymakers in order to impact the resultant changes in national behaviour required to address these solutions.

www.stateoftheocean.org

The Deep Sea Conservation Coalition (DSCC) is a coalition of over 50 organisations worldwide, promoting fisheries conservation and the protection of biodiversity on the high seas.

The DSCC has been actively involved in the international scientific and regulatory monitoring the adverse impacts on deep-sea biodiversity to areas beyond national jurisdiction from bottom trawling and other methods of bottom fishing on the high seas since 2003/2004.

www.savethehighseas.org

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the ocean

THE END

UN FAO Guidelines: Impact Assessments

- *Para 47: Impact assessment should address, inter alia:*
- *i. type(s) of fishing conducted or contemplated, including vessels and gear-types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan);*
- *ii. best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;*

UN FAO Guidelines: Impact Assessments

- *iii. identification, description and mapping of VMEs known or likely to occur in the fishing area;*
- *iv. data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;*
- *v. identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low-productivity fishery resources in the fishing area;*

UN FAO Guidelines: Impact Assessments

- *vi. risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts, particularly impacts on VMEs and low productivity fishery resources; and*
- *vii. the proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations.*

UN FAO Guidelines: VMEs

- *i. Uniqueness or rarity – e.g :*
 - *habitats that contain endemic species;*
 - *habitats of rare, threatened or endangered species that occur only in discrete areas; or*
 - *nurseries or discrete feeding, breeding, or spawning areas.*
- *ii. Functional significance of the habitat – discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life-history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species.*

UN FAO Guidelines: VMEs

- *iii. Fragility – an ecosystem that is highly susceptible to degradation by anthropogenic activities.*
- *iv. Life-history traits of component species that make recovery difficult – ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics:*
 - *slow growth rates;*
 - *late age of maturity;*
 - *low or unpredictable recruitment; or*
 - *long-lived.*
- *v. Structural complexity – an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features.*

UN FAO Guidelines: SAIs

- *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.*

UN FAO Guidelines: SAIs

- *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 life-history stages.*

UN FAO Guidelines: SAIs

- *19. Temporary impacts are those that are limited in duration and that allow the particular ecosystem to recover over an acceptable time frame. Such time frames should be decided on a case-by-case basis and should be in the order of 5-20 years, taking into account the specific features of the populations and ecosystems.*
- *20. In determining whether an impact is temporary, both the duration and the frequency at which an impact is repeated should be considered. If the interval between the expected disturbance of a habitat is shorter than the recovery time, the impact should be considered more than temporary. In circumstances of limited information, States and RFMO/As should apply the precautionary approach in their determinations regarding the nature and duration of impacts.*

Northeast Atlantic Rockall and Hatton Bank

“There is general agreement among scientists, the fishing industry and the politicians that the fragile deep-water stocks are seriously over-exploited, but political imperatives dictate that uncertainties and inconsistencies in the scientific assessment and advice are used to postpone the urgent action that is required.”

“It is perhaps not much of a consolation, but at least in the Rockall Trough, we know a lot about the ecosystem that is being destroyed, while in other areas, such as the Hatton Bank, we will never know what is being destroyed”

Dr John Gordon, Scottish Association of Marine Scientists, quoted in ‘End of the Line’ by Charles Clover. 2004.