

OSPAR CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF  
THE NORTH-EAST ATLANTIC

Intersessional Correspondence Group on Marine Protected Areas (ICG-MPA)  
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## Management options for the Charlie-Gibbs MPA

Presented by WWF

**This document invites ICG-MPA to consider possible management responses to human activities and pressures in the proposed Charlie-Gibbs MPA. It also addresses the mechanisms to cooperate with relevant authorities/organisations.**

### Background

The roadmap for further work on the Charlie-Gibbs Fracture Zone (CGFZ)/Mid Atlantic Ridge proposal 2008/2009 requires ICG-MPA to consider appropriate associated protective measures for the proposed Charlie-Gibbs MPA. In more general terms, the tasks for ICG-MPA include to make an inventory of human activities and pressures in areas proposed as MPAs in ABNJ and scope initial considerations on possible management and monitoring requirements. The relevant documents (OSPAR 2008 SR Annexes 9 and 10) are referred to in ICG-MPA 09/01/01.

This document is an attempt to link both approaches and break down the overall perspective on MPAs in ABNJ for the distinct site proposed as Charlie-Gibbs MPA. By doing so, it identifies competent authorities for management responses as well as current gaps in knowledge.

The options outlined at **Annex 1** are based on the conservation objectives and background information as adopted by OSPAR MASH 2008 (SR Annexes 9 and 10).

The intention and purpose of this exercise is:

- a. to inform the further dialogue with competent international authorities as facilitated by the OSPAR Secretariat (cf. responses received from IMO, ISA, et. al. and presented to MASH 2008);
- b. to seek and build consensus amongst OSPAR Contracting Parties on common positions and messages within the international frameworks concerned; and
- c. to help identify CPs' resources and expert capacity (beyond ICG-MPA, MASH or BDC) on management issues needing further investigation and foster cross sectoral information exchange.

In this respect, WWF welcomes the substantive information provided by France in document ICG-MPA 09/08/02. With regard to human activities on the site concerned, the matrix at Annex 1 draws to a considerable extent on intelligence provided with the maps there. It is further based on content of the MPA nomination proforma accepted by OSPAR,

as well as the previous working paper *Scope on management and monitoring of an MPA on the MAR/CGFZ* by WWF and the Netherlands. For habitats and species, cross check was made against findings in the pertinent *Case Reports for the OSPAR List of Threatened and/or Declining Species and Habitats*.

The matrix at Annex 1 is not meant to be exhaustive but to provide a framework for further brainstorming.

### **Action requested**

ICG-MPA is invited to consider the tentative management options presented at Annex 1 and evaluate their importance in light of the points made as a, b, c above.

## Matrix of management options for the Charlie-Gibbs MPA

Note: within the hierarchy below, specific management options only make sense vs. specific conservation objectives. Vision and general objectives provide guidance on general principles of a future management plan, including research and monitoring needs.

Vision / objective	Potential impact / threat	Possible management response	Competent authorities / pertinent law
<b>Conservation Vision</b>			
Maintenance and, where appropriate, restoration of the integrity and natural quality of the functions and biodiversity of the various ecosystems of the Charlie Gibbs Fracture Zone	At this holistic level, the overarching threat (likely to jeopardise success of other protective measures) may be climate change causing global warming and changes in oceanic current patterns, as well as ocean acidification (OA).	Mitigation measures, cut in greenhouse gas emissions  Investigate long-term ecosystem changes due to climate change impacts and OA.  Exclude geo-engineering projects (e.g. ocean fertilisation) from site.	IPPC, Kyoto Protocol and follow-up instruments  Scientific institutions and frameworks, ICES, EU FP; OSPAR support <i>vis-a-vis</i> funding agencies  London Convention / Protocol (LC/LP), OSPAR
<b>General Conservation Objectives</b>			
To protect and conserve the range of habitats and ecosystems including the water column of the Charlie-Gibbs MPA for resident, visiting and migratory species as well as the marine communities associated with key habitats.	At this level, particular attention should be paid to connectivity. The site and its ecosystems are not pristine any more. However, there is a higher potential to safeguard natural dynamics compared to elsewhere in the North-East Atlantic.	Prevent further anthropogenic fragmentation of populations, habitats and ecosystems. Avoid interference with natural gradients and patterns (e.g. sub-polar front).  Investigate population sizes, genetic relations and reproduction / migratory patterns. Ensure ongoing research and data collection to contribute to knowledge base.	<i>See details further below.</i>  Scientific institutions and frameworks, ICES, EU FP  OSPAR support <i>vis-a-vis</i> funding agencies
To prevent loss of biodiversity, and promote its recovery where practicable, so as to maintain the natural richness and resilience of the ecosystems and habitats.	Specific focus to be made on inventories, evaluation and monitoring of existing damage by historic and ongoing fishing activities to the features concerned.  Particular attention must be paid to the protection of Vulnerable Marine Ecosystems (VMEs).	Identify areas and stocks in particular need of recovery.  Close areas to harmful demersal gear e.g. bottom trawling – where VMEs (are likely to) occur.	OSPAR, NEAFC, ICES and related research institutions.  NEAFC: Implementation of UNGA Resolution 61/105  <i>Also see details further below.</i>
To prevent degradation of, and damage to, species, habitats and ecological processes, in order to maintain the structure and functions - including the productivity - of the ecosystems.	The pre-requisites to prevent current or predict further impacts in a proactive way are not fully in place yet.	Initiate and run monitoring and surveillance programme with a focus on human activities, e.g. VMS database, remote sensing of plankton production, hydrographic properties, vessel traffic, mineral resources and related claims etc.	Requires close collaboration of OSPAR, NEAFC, ICES, IMO, ISA and other bodies. The question arises as to which body could host such programme covering data from all sectors.  <i>Also see details further below.</i>
To restore the naturalness and richness of key ecosystems and habitats, in particular those hosting high natural biodiversity.	Except the sub-polar front, hotspots of natural biodiversity are not fully mapped within the site yet – while the distribution of key features e.g. seamounts is known.	Identify and map areas and assemblages hosting high natural biodiversity.	Scientific institutions and frameworks, ICES, EU FP; OSPAR support <i>vis-a-vis</i> funding agencies  <i>With regard to key ecosystems and habitats, see details below.</i>

Specific Conservation Objectives	Potential impact / threat	Possible management response <sup>1</sup>	Competent authorities / pertinent law
<p><b>- Water column – to prevent ...</b></p> <p>... deterioration of the environmental quality of the bathypelagic and epipelagic water column (e.g. toxic and non-toxic contamination) from levels characteristic of the ambient ecosystems.</p>	Dumping and incineration of radioactive / chemical waste	Prohibition #	OSPAR Convention Annex II London Convention / Protocol (LC/LP) having external effect on non-OSPAR Parties OSPAR Decision 98/2 IMO: MARPOL Annex VI prohibiting incineration of plastic and PCB compounds aboard vessels
	Dumping of disused offshore installations	Prohibition #	OSPAR Decision 98/3
	Carbon dioxide disposal in water column	Prohibition #	OSPAR Convention Annex II London Convention / Protocol (LC/LP) having external effect on non-OSPAR Parties
	Long-range transboundary air pollution	Further research and evaluation	UN/ECE-LRTAP
	Nutrient inputs and eutrophication	Exclude ocean fertilisation projects from site. Reduction of NOx air pollution from ships #	CBD-COP9 Moratorium LC/LP Resolution OSPAR-Decision? IMO: MARPOL Annex VI and mandatory guidelines
	Oil and chemicals from shipping: operational discharges and incidental releases	Tracking and prosecution of MARPOL offenders	OSPAR Parties' / EU Member States' port state control mechanisms
		Special Area and/or Particularly Sensitive Sea Area (PSSA) status for the southern section of the MPA	IMO: MARPOL Annexes I, II, III + PSSA Guidelines
	Release of tributyltin and other toxic antifouling compounds	Ban on TBT use on ships hulls #	IMO AFS Convention -in force since 2008
	Litter: entanglement and ingestion (seabirds, turtles, cetaceans, sharks and rays)	Further research and evaluation. Special Area for the southern section of the MPA Tracking and prosecution of MARPOL offenders	IMO: MARPOL Annex V including a ban on plastic garbage disposal OSPAR Parties' / EU Member States' port state control mechanisms
	Ghost nets (id.)	Further research and evaluation Ban on using gillnets in waters greater than 200 metres depth in conjunction with measures to remove and dispose of unmarked or illegal fixed gear and retrieve lost gear to minimise ghost fishing. #	OSPAR-NEAFC MoU NEAFC
Fish waste, discard and offal – interference with oceanic seabird populations	Further research and evaluation	id., exempted by OSPAR Annex II	
	Invasive species introduced via ballast water (BW) exchange	Restriction of BW exchange on the High Seas via exemptions from IMO/OSPAR guidelines and rules. Option A: area of subpolar front (most sensitive to invasive species) – Option B – southern section of MPA (highest vessel frequency)	IMO Guidelines; OSPAR/HELCOM Guidelines; Annex (Section C Additional Measures) to the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments) – entry into force pending
... other physical disturbance (e.g. acoustic).	Noise pollution by Low Frequency Sonar (LFS) in military exercises + seismic	Further research and evaluation. Avoid military exercises with	? ?

<sup>1</sup> Measures highlighted # are in place.

	exploration for seabed mining purposes – interference with migrating cetaceans	LFS Establish area as a reference site: no mining allowed	International Seabed Authority (ISA)
To protect, maintain and, where appropriate, restore the epipelagic and bathypelagic ecosystems, including their functions for resident, visiting and migratory species, such as: cetaceans, and mesopelagic and bathypelagic fish populations.	Fishing effort and pressure still high in certain parts of the area, likely to increase in a way less regulated and sustainable than in waters within national / EU jurisdiction.  Bycatch of marine mammals , turtles sharks and rays  Taking of cetaceans	Establish no-take zone for pelagic fisheries of sufficient size to provide a meaningful reference.  Establish standards for pelagic mid-water fishing including the promotion of innovative ("smart") gear. Introduce mandatory Environmental Impact Assessment (EIA) for new fisheries.  Combat illegal, unregulated and unreported (IUU) fishing by stringent port state control and naming and shaming #  id. - Pelagic long-lining only to be permitted if method providing close-to-zero bycatch  Further assessment and evaluation  Establish a cetacean sanctuary.	NEAFC; OSPAR-NEAFC MoU  NEAFC; FAO-COFI  NEAFC scheme in place, A and B lists of vessels  NEAFC; OSPAR-NEAFC MoU  OSPAR, NEAFC, IWC, ICES  IWC, NAMMCO
Special attention should be given to the area of the meandering sub-polar frontal ecosystem	Fishing and taking likely to weaken the natural productivity and biodiversity of this important feeding ground and aggregation sit for all pelagic food web components.  Particularly prone to the introduction of invasive species	Establish the importance of the sub-polar front as a feeding area for marine mammals and turtles and evt. basking shark. Restore the elevated meso- and bathypelagic fish stocks in its vicinity as a reserve pool. No fishing or taking in its vicinity.  Control ballast water exchange in its vicinity.	NEAFC; OSPAR-NEAFC MoU  IWC; NAMMCO  <i>see above</i>
<b>- Benthopelagic layer</b> – to protect, maintain and, where appropriate, restore:  Historically harvested fish populations (target and bycatch species) at/ to levels corresponding to population sizes above safe biological limits with special attention also given to deep water elasmobranch species, including threatened and/or declining species, such as Portuguese dogfish, leafscale gulper shark and gulper shark.	Historical depletion of key stocks, often in aggregation with seamounts – hence in need of recovery	Cessation of fishing below 1000 m to protect the bathyal ecosystem  Cessation of fishing on historically fished species such as redfish, roundnose grenadier, alfonsino and orange roughy until sustainable catch can be generated from population data  Combat illegal, unregulated and unreported (IUU) fishing by stringent port state control and naming and shaming #  Investigate population sizes, genetic relations and reproduction patterns to inform on stock health and / or safe biological limits (if any).  Reduction / prohibition of targeted fisheries on these deep water elasmobranchs (including bycatch margins) #	NEAFC, OSPAR-NEAFC MoU;  id.  NEAFC scheme in place, A and B lists of vessels  ICES WG DEEP and WG DEC  Council Regulation (EC) No <b>1359/2008</b> of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks – applying to vessels flying EU MS' flags

<p>Benthopelagic habitats and associated communities.</p>	<p>Potential fishing impact (including bycatch) on shrimp, prawn and squid stocks</p> <p>Harvest of organisms for bioprospection purposes</p>	<p>Further assessment and evaluation</p> <p>Further assessment and evaluation</p>	<p>NEAFC, ICES</p> <p>OSPAR, ICES</p>
<p><b>- Benthos</b> – to protect, maintain and, where appropriate, restore:</p> <p>The epibenthos and its hard and soft sediment habitats, including threatened and/or declining species and habitats such as seamounts, deep-sea sponge aggregations, <i>Lophelia pertusa</i> reefs and coral gardens.</p>	<p>Destruction of vulnerable marine ecosystems (VMEs) by fishing gear in touch with the seafloor: cold-water coral reefs, coral gardens, seamount communities, sponge aggregations, hydrothermal vent fields.</p> <p>Harvest of organisms for bioprospection purposes, particularly relevant to the highly diverse sponge fauna of the area</p> <p>Extraction / destruction by scientific sampling</p> <p>Extraction of mineral resources e.g. gypsum, anhydrite, cobalt crusts likely do disturb and destroy communities. While their occurrence in the area is largely unknown, claims for extraction licences are imminent.</p>	<p>Close all areas to harmful demersal gear e.g. bottom trawling – where VMEs (are likely to) occur.</p> <p>Measure in place, on a temporary basis, for a section of the Reykjanes Ridge to the north of the Charlie-Gibbs MPA, as well as Hecate and Faraday seamounts #</p> <p>Further assessment and evaluation</p> <p>Establish no-take zone(s) at least with regard to sponges.</p> <p>Apply OSPAR Code of Conduct for responsible research in the high / deep seas.</p> <p>Blueprint for zonation: management plan for Lucky Strike and Menez Quen hydrothermal vent fields (Azores) #</p> <p>Further assessment and evaluation</p> <p>Establishment of a reference area / no-mining-zone</p>	<p>NEAFC: Implementation of UNGA Resolution 61/105 and follow-up to Annual Meeting 2008; OSPAR-NEAFC MoU</p> <p>NEAFC</p> <p>OSPAR, NEAFC</p> <p>OSPAR? ISA? CBD?</p> <p>OSPAR and scientific community or organisations, e.g. InterRidge</p> <p>WWF, UiAc-DOP, InterRidge, IFREMER</p> <p>ISA</p> <p>ISA</p>
<p>The infauna of the soft sediment benthos, including threatened and/or declining species and habitats.</p>	<p>Bottom trawling likely to disturb community</p> <p>Extraction of mineral resources e.g. ferromanganese nodules likely do disturb and destroy communities. While their occurrence in the area is largely unknown, claims for extraction licences are imminent.</p> <p>Cable laying for transatlantic telecommunication and/or electric energy transfer.</p>	<p>Further assessment and evaluation</p> <p>Further assessment and evaluation</p> <p>Establishment of a reference area / no-mining-zone</p> <p>Further assessment and evaluation</p> <p>Establish no-go areas.</p>	<p>OSPAR, ICES</p> <p>ISA</p> <p>ISA</p> <p>OSPAR</p> <p>OSPAR</p>
<p>The habitats associated with ridge structures.</p>	<p>Bottom trawling: id.</p> <p>Extraction of mineral resources e.g. polymetallic sulfides likely do disturb and destroy communities. While their occurrence in the area is largely unknown, claims for extraction licences are imminent.</p>	<p>Provide for undisturbed spawning habitat associated with ridge structures.</p> <p>Further assessment and evaluation</p> <p>Establishment of a reference area / no-mining-zone</p>	<p>NEAFC; OSPAR-NEAFC MoU</p> <p>ISA</p> <p>ISA</p>

- Habitats and species of specific concern	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>
- Threatened and/or declining habitats	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>
Seamounts	Potential anthropogenic interference, on top of fishing impacts ( <i>see above</i> ): bioprospective and mineral extraction	Further assessment and evaluation  Blueprints for management of human activities around seamounts: proposed management plan for Sedlo Seamount (Azores) and overseas (AUS, CDN) examples #	OSPAR, ISA  WWF, UiAc-DOP
Deep sea sponge aggregations	Potential anthropogenic interference, on top of fishing impacts ( <i>see above</i> ): bioprospective extraction	Further assessment and evaluation	OSPAR, ISA?
<i>Lophelia pertusa</i> reefs	Further to the fishing impact <i>addressed above</i> , ocean acidification and sedimentation / silting (due to extractive activities and / or cable laying in the vicinity).  Ghost nets and loss of gear following entanglement might pose a particular threat.	Further assessment and evaluation of deep water pH trends in the area  No-go areas and buffer zones  Review existing measures to remove and dispose of unmarked or illegal fixed gear and retrieve lost gear to minimise ghost fishing. #	OSPAR, ICES  OSPAR, ISA  NEAFC; OSPAR-NEAFC MoU
Coral gardens	Potential and as yet neglected fishing impact on these communities often colonising the non-hydrothermal hard bottom areas of oceanic ridges (like sponges).	Ban on using gillnets in waters greater than 200 metres depth #  Further assessment of long-lining impact in the area	NEAFC  OSPAR-NEAFC MoU
- Other features of special concern	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>
Deep water and epipelagic ecosystems, including their function for migratory species	<i>See above</i>	Identify one or two representative sections of the Charlie-Gibbs MPA seascape combining all these features.	OSPAR, NEAFC, MarEco/EcoMar ICES NGOs Google Oceans?
Habitats associated with ridge structures, including their function as recruitment and spawning areas	<i>See above</i>	Establish a “scientific observatory” for the Charlie-Gibbs MPA and secure funds to operate it.	
Benthopelagic habitats and associated communities, including commercially fish species	<i>See above</i>	Inform and promote the management process via public outreach and awareness raising,	
Hard substrate habitats and associated epibenthos, including cold water corals and sponges	<i>See above</i>	Create an information portal on the Charlie-Gibbs MPA (and subsequently other OSPAR MPAs in ABNJ) giving access to research initiatives, real time information on human activities and impacts, documentation material, footage etc.	
Soft sediment habitats and associated benthos, including “coral gardens” of non-scleractinian corals	<i>See above</i>		

<b>- Threatened and/or declining species</b>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>
Orange roughy ( <i>Hoplostethus atlanticus</i> )	Most stocks are in critical shape due to historic and recent high fishing mortality.	Moratorium for target fisheries #  NEAFC ban of target fisheries	Council Regulation (EC) No <b>1359/2008</b> of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks – applying to vessels flying EU MS' flags  NEAFC (complete ban pending)
Blue whale ( <i>Balaenoptera musculus</i> )	Particularly sensitive to LFS and noise from seismic exploration <i>see above and below</i> (cetaceans)	<i>See above</i>  Given the low population size, reporting of injuries due to collisions should be made mandatory.	IWC, NAMMCO, ISA, IMO
Leatherback turtle ( <i>Dermochelys coriacea</i> )	Specific attention should be paid to bycatch in long-lines and possible ingestion of litter e.g. plastic bags mistaken as jellyfish, the main food source – <i>see above</i>	Make use of information from transatlantic turtle tracking system  Further assessment and research concerning distribution and migratory pattern	OSPAR, WWF, Bern and Bonn Conventions
Portuguese dogfish ( <i>Centroscymnus coelolepis</i> )	Stocks are in critical shape due to historic and recent high fishing mortality – species particularly sensitive to bycatch and discarding.	Ban on using gillnets in waters greater than 200 metres depth #  Ban on target fisheries in conjunction with maximum bycatch levels #  Prohibition of shark finning #	NEAFC  Council Regulation (EC) No <b>1359/2008</b> of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks – applying to vessels flying EU MS' flags  NEAFC and EC
Gulper shark ( <i>Centrophorus granulosus</i> )	Stocks are in critical shape due to historic and recent high fishing mortality – species particularly sensitive to bycatch and discarding.	Ban on using gillnets in waters greater than 200 metres depth #  Ban on target fisheries in conjunction with maximum bycatch levels #  Prohibition of shark finning #	Council Regulation (EC) No <b>1359/2008</b> of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks – applying to vessels flying EU MS' flags  NEAFC and EC
Leafscale gulper shark ( <i>Centrophorus squamosus</i> )	Stocks are in critical shape due to historic and recent high fishing mortality – species particularly sensitive to bycatch and discarding.	Ban on using gillnets in waters greater than 200 metres depth #  Ban on target fisheries in conjunction with maximum bycatch levels #  Prohibition of shark finning #	NEAFC  Council Regulation (EC) No <b>1359/2008</b> of 28 November 2008 fixing for 2009 and 2010 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks – applying to vessels flying EU MS' flags  NEAFC and EC
<b>- Other species of special concern</b>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>	<i>Issues not addressed above</i>
Cetaceans	Further to the issue of taking (hunting) <i>addressed above</i> , possible injuries to migrating cetaceans such as sperm, fin,	Further assessment and evaluation with focus on the conflict between vessel traffic and migratory routes in the	OSPAR, IMO, IWC, NAMMCO, ICES

	sei, pilot and minke whales as a result of collisions with vessels deserve attention.	southern section of the MPA. Onboard observers Specific precautionary measures to be anchored in rules for a cetacean sanctuary.	IMO IWC, NAMMCO
Deep water sharks	Most stocks are in critical shape due to historic and recent high fishing mortality – most species are particularly sensitive to bycatch and discarding.	Inclusion of further species into management regime Prohibition of shark finning #	NEAFC and EC
Mesopelagic and benthopelagic fish stocks (in the vicinity of the sub-polar front)	<i>See above</i>	<i>See above</i> e.g. “scientific observatory”	<i>See above</i> e.g. “scientific observatory”
Oceanic seabirds like Cory shearwater, great shearwater and fulmar	Key issues: food web interactions (discard and offal) – ingestion of litter, including small plastic particles  Cory shearwater (undertaking long distance foraging trips from the Azores to the Charlie-Gibbs MPA): possible threat in the area unknown	Further assessment and research in the area  Further assessment and research in the area – use example to raise awareness and fascination – <i>also see</i> “scientific observatory”	OSPAR, ICES, BirdLife  OSPAR, WWF, BirdLife, UiAc-DOP