

Rockall and Hatton Bank site proposals

Rationale

WWF proposes to close the areas indicated in Fig. 1 for all fisheries which pose a threat to the sensitive bottom fauna, namely the cold-water coral ecosystems of Rockall Bank, the Western Rockall Bank and Hatton Bank.

Reasons for Site Selection

Throughout the area, evidence exists for the occurrence of more or less dense formations of cold water corals, mainly *Lophelia pertusa* and *Madrepora oculata*, and associated species communities frequently dominated by other large suspension feeding organisms. Given several decades of commercial and research bottom trawling on and around the bank, probably substantial areas of coral occurrence have disappeared today. Hall-Spencer et al. (2002), clearly demonstrated the high degree of damage occurring during bottom trawling, even when not intentionally fishing in coral areas. Each „coral by-catch“ reduces the cover of healthy, living coral communities. The high degree of patchiness in the occurrence of corals on the eastern flank of Rockall Bank was suggested to be attributable to continued smaller damages caused by trawling (Roberts et al., 2003).

Therefore, the risk of destruction of the remaining coral formations has to be minimised urgently by reducing the fishing pressure. This is particularly true for the recently investigated and apparently undamaged Logachev Mound Province on the SE slopes of Rockall Bank in international and Irish waters.

A proposal to protect the cold-water corals of Rockall and Hatton Bank by fisheries measures and protected areas

ICES keeps repeating its advice that „the only way to protect cold-water coral reefs and other similar sensitive habitats from fishing damage is to map the reefs and habitats precisely and to

For information, contact:

Stephan Lutter
 WWF North-East Atlantic Programme
 Am Gütpohl 11 · D-28757 Bremen · Germany
 Tel: +49 421 65846-22 · Fax: +49 421 65846-12
 E-mail: lutter@wwfneap.org

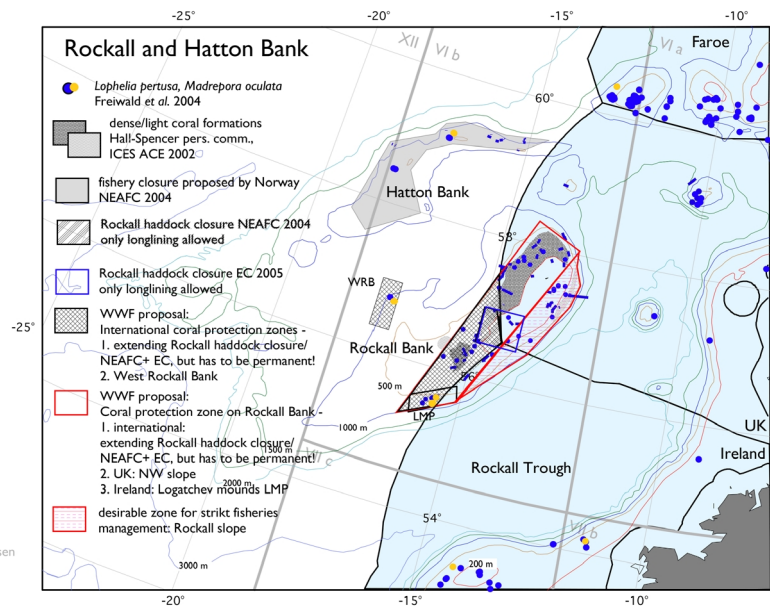


Fig. 1: Location of the Rockall Bank in UK, Irish and international waters, and Hatton Bank in international waters. WRB is the Western Rockall Bank carbonate mound area.

close those areas to the forms of fishing that cause damage“ (Section 2.1.6.2 of 2004 ICES ACE report, MASH 04/3/Info.3). All types of fishing gear have to be considered as potentially damaging to cold-water coral formations. However, the physical impact of bottom trawling gear in direct contact with the corals, and also the sediment plumes raised, are seen as the biggest threat (Morgan and Chuanpagdee, 2003, Freiwald et al., 2004, MASH 04/5/1-E).

Recent cruises to the carbonate mounds west of Ireland provided ample evidence for lost and ghost-fishing gear of all kind. This is not surprising given the number of nets and longline sets deployed by a single fishing vessel every day (see e.g. Grehan et al., 2004).

The eastern slopes of Rockall Bank in Irish and UK waters are well-known cold water coral areas, though expected to be severely impacted through several decades of trawling by e.g.. UK, Russian, German, Spanish and French fleets (e.g. Gordon 2002). This area is not only home to the few targeted fish species but also to a highly diversified deep-water fish community, including several rare and endangered deep-water fish species, namely also sharks, rays and chimeras. Hence, it is urgently required to introduce strict localised fisheries management measures on the slopes of Rockall Bank (as on the Irish and UK shelf) which will allow for the recovery of the ecosystem. New research projects scheduled to focus on the Rockall area will shed further light onto the current state of benthic ecosystems and may call for new measures.

Rockall Bank

The Rockall Bank is of great biological significance in the NE Atlantic. In 150-1000 m depth, it harbours significant coral-associated benthic and species-rich fish communities. Other aspects of the biology of the Rockall Bank are poorly known and large parts of the deeper areas remain unexplored.

1. In international waters (on the continental shelves claimed by Ireland and UK), the area proposed for being closed to fishing **on the Rockall Bank** is delineated by the following coordinates: 57.50°N, 14.85°W, 55.30°N, 16.32°W; 55.44°N, 15.61°W; 56.55°N, 14.20°W. The enclosed area includes part of the Logachev Mound Province on the SE Rockall Flank in 500-1000 m depth. To the north, close to the Irish/UK border, it includes the 2005 Rockall haddock closure, adopted by NEAFC 2004. In this area, only longlining is allowed. The EC enlarged this area into the fishery zones of UK and Ireland (EC 27/2005). Although these measures reduce the risks to benthic ecosystems in 2005, they are not permanent, and the main coral occurrences are located to the south of this area.

The **Western Rockall Bank (WRB)** site is delimited by the following coordinates: 56°20' N, 17°40'W; 57°N, 17°40'W; 57°N, 17°20'W; 56° 20'N, 17°40'W. This area differs from the coral-dominated sites on the eastern side of Rockall Bank, is well-preserved and has very rich epibenthic communities, and extensive coral areas on the tops of the carbonate mounds.



Fig. 2: *Lophelia pertusa* photographed by ROV Quest at Franken mound: 56°29.93N 17°18.21W (cruise report Meteor 61/3)

2. In the 200 nm zone of the United Kingdom, the area proposed for statutory protection as a Natura 2000 site and OSPAR MPA comprises a very large area of known dense cold-water coral occurrence on the north-western flank of Rockall Bank at a depth of 500-1000 m.

3. In the Exclusive Economic Zone of Ireland, primarily the part of the Logachev Mound Province which is in Irish waters should be designated as a Natura 2000 site and OSPAR MPA. Scientists consider this to be probably the best developed coral site in Irish waters. It is undamaged so far and should therefore be protected on a precautionary basis as soon as possible.

Hatton Bank

This area was proposed to NEAFC for closure to fisheries by Norway (http://www.neafc.org/reports/docs/neafc_amreps/am2004_papers/2004-16_nor_closing-for-trawling-v2.pdf). Further to the coral occurrences known to science so far, it comprises fishing localities with by-catch of corals, and also areas marked on French fisheries charts as coral areas.

Management Considerations

The establishment of a coral protection zone at Rockall Bank will be mostly for the benefit of the benthic habitats and species, and to a lesser extent the target and non-target fish species. However, the advice of ICES ACFM (annually since 1998) is that the deep-water stocks, including anglerfish, are being exploited "outside safe biological limits". ICES recommends drastic effort reductions, innovative management techniques like area closures and improvements in data quality and availability. While NEAFC 2004 decided to reduce the fishing effort directed at deep-water species to 70 % of the previous level, in the December 2004 Council Meeting Fisheries Ministers of EU Member States only agreed on a 15 % reduction. This is inconsistent with each other and the environmental obligations arising from e.g. OSPAR Annex V.

Legal Aspects

The NE Atlantic Fisheries Commission can introduce fisheries measures in its Convention Area. Prior to the determination of its future policy with regard to a broader ecosystem approach to fisheries and overall oceans management, these measures have to be justified by fisheries considerations. However, there was broad consensus at the NEAFC Annual Meeting 2004 that measures should be adopted on a broader basis and precautionary action should be taken to protect vulnerable deep-water habitats (NEAFC 2004 Report).

Action Required

WWF calls on Ireland, the United Kingdom and the relevant fisheries authorities in the NEAF Commission to urgently reduce the risk to vulnerable deep-water habitats and species from damaging fishing activities by developing management techniques which take account of the risks to the environment, preferably by closing the areas.

References/Further Reading

- Freiwald, A., J.H. Fosså, A. Grehan, J.A. Koslow and J.M. Roberts (2004). "Cold-Water Coral Reefs." UNEP, Cambridge, UK.
- Gordon, J. D. M. (2002). The Rockall Trough, Northeast Atlantic: the cradle of deep-sea biological oceanography that is now being subjected to unsustainable fishing activity. *J. Northwest Atl. Fish. Sci.* 31, 1-27.
- Grehan, A.J., V. Unnithan, K. Olu and J. Operderbecke (2004). Fishing impacts on Irish deep-water coral reefs: making the case for coral conservation. In: J. M. Thomas, ed., Proceedings from the Symposium on the Effects of Fishing Activities on Benthic Habitats: Linking Geology, Biology, Socioeconomics and Management. November 12-13th, 2002. American Fisheries Society, Bethesda, Maryland, USA.
- Hall-Spencer, J., V. Allain and J.H. Fosså (2002). Trawling damage to Northeast Atlantic ancient coral reefs. *Proc. R. Soc. Lond. B:* 507-511.
- Johnston, C.M., C.G. Turnbull and M.L. Tasker. (2002). "Natura 2000 in UK Offshore Waters: Advice to support the implementation of the EC Habitats and Birds Directives in UK offshore waters." JNCC Report No. 325.
- Kenyon, N.H., M.K. Ivanov and A.M. Akmetzhanov (1998). "Cold water carbonate mounds and sediment transport on the Northeast Atlantic margin. Preliminary results of the geological and geophysical investigations during the TTR-7 cruise of R/V Professor Logachev in cooperation with the CORSAIRES and ENAM2 programmes July-August, 1997." UNESCO, Intergovernmental Oceanographic Commission Technical Series 52, Paris.
- Morgan, L.E. and R. Chuanpagdee (2003). "Shifting Gears. Addressing the Collateral impacts of Fishing Methods in U.S. Waters." Pew Science Series.
- Roberts, J.M., D. Long, J.B. Wilson, P.B. Mortensen and J.D. Gage (2003). The cold-water coral *Lophelia pertusa* (Scleractinia) and enigmatic seabed mounds along the north-east Atlantic margin: are they related? *Mar. Poll. Bull.* 46: 7-20.