

PE1386/D

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Public Petitions Committee, TG.01
The Scottish Parliament
Edinburgh
EH99 1SP

PETITION PE 1386: Petition by Richard Munday on behalf of the Torridon Nephrops Management Group

1. Thank you for giving Scottish Natural Heritage (SNH) the opportunity to provide comments on the above petition.
2. SNH has had direct engagement with the Torridon Nephrops Management Group (TNMG) since 2001/2002. We were initially asked by Scottish Executive to work with the FRS Marine Laboratory (now Marine Scotland Science) to monitor and assess the effects of the 2001 Order, and in our case to focus on the biodiversity aspects.
3. There followed a period of collaborative work (until 2006) with FRS Marine Laboratory, the University Marine Biological Station Millport (UMBSM), the University of Glasgow and the TNMG. This work was progressed through various means including collaborative fieldwork, a contract to UMBSM and via a PhD studentship. References 1 and 2 within the petition are products of this collaborative work, and the following comments are based on the findings.
4. The main biodiversity interest relevant to this fishery relates to the habitat in which *Nephrops* (the Scottish langoustine) lives - burrowed mud. This habitat is highly productive and supports a rich community of animals, some of which are found at the seabed surface and some burrowing within the mud itself (*Nephrops* being the largest of these burrowers). The extensive burrowing activity plays a vital ecological function in the marine ecosystem by (amongst other things) cycling nutrients and oxygen between the mud and the overlying water.
5. Scottish territorial waters contain the bulk of the mud habitat resource in the UK (including the Clyde, the west coast, the Moray Firth and Firth of Forth). The extent of mud habitat helps explain why *Nephrops* is of such importance to the Scottish inshore fleet. However, these mud habitats are categorized by OSPAR as 'threatened and declining' due to a combination of factors, including the impact of fishing activity on the seabed and anoxic conditions arising from inputs of excess nutrients (the latter being of less relevance to Scotland than other parts of Europe). SNH is therefore considering burrowed mud habitats (and some of their component species) for the Scottish Priority Marine Features list and as Marine Protected Area (MPA) Search Features. Consequently, the presence and quality of some burrowed mud habitats may influence the selection of new MPAs.

Accordingly, spatial management of *Nephrops* fisheries - by integrating fisheries management with species and site protection - could make a positive contribution to underpinning the Scottish Government Three Pillar Approach to Marine Nature Conservation for such habitats,.

6. There were two key aspects to the management scenario in the Loch Torridon and Inner Sound area:
 - a) The voluntary management measures implemented by TNMG (including escape panels, non-retention of gravid females, limitations on creel numbers) and;
 - b) The spatial segregation of the static and mobile sectors of the *Nephrops* fishery, underpinned by the statutory fishery order.
7. While the voluntary management measures were aimed principally at the long-term sustainability of the target stock (which in itself is of ecological benefit) it was the spatial measures that were of most relevance to our biodiversity considerations. The scenario created by the Loch Torridon and Inner Sound fishery restrictions in combination with the submarine exercise area in the Inner Sound provided a unique opportunity to compare (a) unfished, (b) creel-only and (c) trawled burrowed mud habitats.
8. The study involved comparison of certain species on the seabed surface which are sensitive to physical disturbance and therefore act as indicators of impact. The results can be summarized as follows:
 - a) There was a significant difference between the trawled and creel-only areas, with key indicator species being absent or of low abundance in the trawled area.
 - b) The indicator species were present within the creel-only area, albeit at a lower density than the unfished area.
 - c) The unfished area (the submarine exercise area) had the highest abundance of the indicator species.
 - d) The unfished area contained very large specimens of *Nephrops*. It is possible that this population of large, unexploited animals has the potential to contribute positively to the maintenance of populations in the adjacent, exploited areas (although it was not possible to explore this hypothesis during this study).
9. The results from the work in the Loch Torridon and Inner Sound area have informed views in relation to the management of the *Nephrops* fishery and the issues raised in the petition.
 - a) We believe that biodiversity (as well as fishery) benefits may accrue from the wider use of spatial management in the *Nephrops* fishery.
 - b) While it is true that the creel fishery has a much lower physical impact on the seabed than trawling, it is not entirely benign. The extent to which seabed biodiversity is impacted by creeling will depend on the level of

fishing activity. Therefore, measures to manage access to and fishing effort are necessary within creel-only areas (i.e. to limit the volume of creel deployments).

- c) Consideration should be given to the use of permanently unfished areas in addition to segregation of creeling and trawling.
- d) Consideration should also be given to rotational closures (whether creel or trawl) to facilitate recovery of the *Nephrops* stock and the seabed.
- e) Consideration needs to be given to the legislative tools available to manage the fishery. The Inshore Fishing (Scotland) Act 1984 provides the mechanism to underpin spatial measures but has no provision for further management of access or fishing effort.
- f) Management to limit access as proposed (and the requirement to comply with codes of conduct) could in theory be achieved via the Regulating Order mechanism within the Sea Fisheries (Shellfish) Act 1967. However, this has not previously been used in the context of the *Nephrops* fishery and there are some practical aspects to overcome.

10. The debate around the management of the *Nephrops* fishery has had a tendency to become highly polarized and stagnant. We believe the TNMG has shown a commendable degree of judgement and foresight in proactively developing an innovative approach to the management of the fishery in their area. It is unfortunate that their efforts have been undermined by the inability to manage the fishing effort in the area and/or to compel the use of the measures in their voluntary code of conduct.

11. It is worth noting that measures applied to *Nephrops* fisheries under the Common Fisheries Policy (CFP) do not necessarily meet the aspirations or optimise the potential for sustainability at a more local level. Consequently, management under the CFP could be usefully complemented by spatial management coupled with effort limitation in the inshore area.

12. We believe, therefore, that the time is right for wider use of such an innovative and fresh approach to the management of *Nephrops* fisheries in inshore waters and to give serious consideration to the role that spatial management measures could play in obtaining benefits for the target stock, biodiversity and in the reduction of conflict.

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