

I firmly support the development of an MPA network.

I grew up watching the sea I love become threadbare of life through mismanagement and overfishing. It seems to me that very little of this was intentional. Neither governments nor fishermen understood the biology and were understandably trapped by short term political concerns and the need to earn a living.

The end result has been that an honourable profession is now viewed with mistrust by the public, many jobs have been needlessly lost, our world has been made poorer and worst of all we don't have so much fish to eat.

I quote from Prof. Callum Roberts who has described how bad things get.

The Firth of Clyde offers an illustration of what can go wrong. In the eighteenth century its banks and bays abounded with fish, shellfish, whales and porpoises, none more abundant than the herring which migrated each year into Loch Fyne to breed. One eighteenth century traveller marvelled at how, when the herring shoals came in, the sea seemed to consist of two parts fish, one part water.

In the late nineteenth century, nets and trawls were introduced that could touch bottom on the shallow spawning banks at Ballentare upon which herring laid their eggs in the southern Firth of Clyde. Within a couple of decades, the herring fishery there collapsed. This catastrophe spurred fishers to establish a ban on bottom trawling that stood until the early 1980s. While it was in place landings of many bottom fish held up well, although herring and saithe, a relative of cod, were wiped out in the 1960s and 1970s through the introduction of electronic fish-finders and mid-water trawls.

With the Herring gone pressure then mounted from prawn trawlers to open up the closed areas. Following repeal of the ban in 1984, cod, plaice, haddock, whiting - in fact all of the Firths productive fisheries - declined to virtually nothing within twenty years. Today the seabed is barren and the only fisheries left are for prawns and scallops, and even they are overfished.

In the Clyde we can glimpse the endpoint of overfishing, in time nothing worth catching is left.

When Ruth Thurston and I published our research on the Clyde in 2010, many fishermen and others familiar with the area agreed with our conclusion. But industry leaders were not pleased. In one newspaper report the heads of two of two Scottish fishing organisations between them deployed the three favourite tactics of those in denial: attack the science, slander the scientists and blame something else (pollution seals and climate change were the straws to which they clutched.)

I would like to think that if we can learn to use the knowledge we have and to plan over long spans of time so that a family can know they will be able to continue to fish for generations. I also hope that the sea and the land surrounding it will be full of life again.

Individual possible Nature Conservation MPAs

2. **Do you have any comments on the case for designation, management options and socioeconomic assessment for the *North-west sea lochs and Summer Isles* possible Nature Conservation MPA?**

Designation:

Yes

A well-managed MPA in this area is essential for the recovery of commercially important fish and shellfish stocks, and the environment that supports them. This area is currently a free for all. Creels are thick on the ground and trawlers work the ground that has no creels on it. By the fishermen's own accounts nephrops sizes get smaller year on year which a sign of a diminishing fishery. Whilst some areas are closed to trawling part of the year, most is not, and important nursery areas for juvenile fin and shellfish such as maerl beds are damaged beyond repair.

The local fleet consists mainly of small nephrops trawlers, and nephrops creelers.

A total ban should be placed on scallop dredging within this area as the damage that this inefficient form of fishing does to scallops, the sea bed, and anything else that gets in their way is appalling and senseless. There are no local scallop dredgers, but there are scallop divers. A hand dived scallop sells for a lot more money than a dredged scallop so this is a better way to utilise this fishery. Any scallop diver could lead you to any number of sites where maerl beds are bleached and dead, with trawl marks still visible through the wreckage.

There should be a kilowatt limit on trawlers to prevent the huge east coast twin riggers ploughing the ground. Both these measures could be effectively self-policed by the local fishermen as they would be beneficial to them.

Then as fish stocks recover opening up new and richer fisheries we should encourage (and if necessary fund during the transition period) a switch from trawling to other methods of fishing.

Management Options:

Yes

Ban scallop dredging. Place a kilowatt limit on trawlers in the area so that trawling is restricted to the small local fleet. Stop all trawling within the sea lochs.

Socioeconomic Assessment:

Yes

The socioeconomic was incomplete as it only looked at the negative impact of trawler displacement.

We have a choice, we can continue to fish down the food chain until there is nothing left to catch and the jobs will be lost anyway. Or we can allow fish stocks to recover. In this case we create a sustainable fishery. We also create richer seas to dwell by and new jobs in FISHING, tourism, sport diving, sport fishing and wildlife watching.

All of the above:

Yes

It is high time to create a future fit for man and beast to live in.

3. **Recognising the scientific advice from JNCC included alternatives for representing the burrowed mud feature in the Fladens, do you have a preference or comments on the following combinations to represent these features, bearing in mind the part of Central Fladen (known as Central Fladen (Core)) containing tall seapen (*Funiculina quadrangularis*) will need to be designated to represent tall seapen in this region:**

Central Fladen pMPA only

The tall sea-pen component of Central Fladen, plus Western Fladen

Or the tall sea-pen component of Central Fladen, plus South-East Fladen.

Central Fladen must be protected in line with scientific advice and I support the 'Central Fladen pMPA only' option to be included in the network. This would be the most ecologically coherent option, providing scope for tall sea pen recovery beyond what may be a remnant population in 'core' Central Fladen.

Sustainability Appraisal

4. **Do you have any comments on the Sustainability Appraisal of the MPA network as a whole?**

Yes

I believe the Sustainability Appraisal does not fully account for the socio-economic benefits that will arise from the proposed MPA network, given that it is properly managed for the common good. These benefits should be quantified and explained.

Final Thoughts

5. **On the basis of your preferences on which pMPAs should be designated, do you view this to form a complete or ecologically coherent network, subject to the completion and recommendations of SNH's further work on the 4 remaining search locations?**

No

It is difficult to comment when it is not yet clear which areas will be designated or what the management measures will be within them.
I hope that the management plan will be carefully and densely reasoned with the full recovery of fish stocks and other marine life as its primary goal. It follows of course that this will create the maximum number of jobs for the coastal communities here. The management plan should weave the creation and continuation of these jobs into its core considerations.

6. **Do you have any other comments on the case for designation, management options, environmental or socioeconomic assessments of the pMPAs, or the network as a whole?**

Yes

A civilised society, in possession of a deep knowledge of Marine biology, Genetics, Resource management, Agriculture, Oceanography and Meteorology should be using all of this to plan a sustainable fishery. Our government to whom we have ceded a duty of care for our livelihoods and the earth and sea within which we dwell should make it their urgent concern to implement such a plan on behalf of us all.

Is a patchwork of MPAs sufficient to allow this? A start, but surely what is needed is to reinstate the three mile limit and manage all our coastal waters. Our government should then negotiate management of the oceans.
To do less than this is to fail us all.

We should not be obliged to try to live in an unmanaged environment helplessly watching "The tragedy of the commons."