

'SCNP members have been particularly busy over recent weeks advocating protected areas on land and sea. Not only are we seeking to extend the national park family in such areas as Galloway and protect the existing national parks and regional parks from intrusion by windfarms but we have joined the debate to rescue our seas from their present precarious state of degradation and over fishing. Here is a talk given by Bill McDermott at the Scottish Parliament's Environment Week in early February.'

Life at the Edge – Why I Need Healthy Seas

I have been a shellfish farmer for the past 12 years working in the South Channel of Loch Moidart, just below Castle Tioram. It is a magical place and I feel privileged to be able to make my contribution to sustainable development by growing a native oyster fishery there. I came to shellfish farming via agricultural research, conservation management and working in protected areas, viz. national parks.

As others have said, this is an auspicious time for the future of our marine environment. At last things are coming together to give me a sense of optimism that we are now grasping the challenges of an inheritance of poor stewardship of one of this country's greatest assets - our seas.

We are indeed privileged to be at the far end of the North Atlantic Drift funnelling up past these islands, bringing temperate waters filled with nutrients and minerals. Our primary production levels are world class. It is a pity that this is no longer reflected in our fish populations which at best are sub-optimal.

Fifty years ago, if I had asked a fisherman from a seine netter in Mallaig what he thought of the wealth of fish in the sea, he would have responded by saying that there will always be fish. The seas are inexhaustible. I can tell you today that the 2007 season's report for fish landings at this former, premier pelagic port revealed no pelagic fish landings at all for the first time in its history and only a 2 to 3 month season for demersals. Mallaig fishers now depend on prawns and scallops for their income. Our seas are exhaustible after all.

Here is an interesting statistic. Six months ago for the first time ever, the world production of seafood from aquaculture outstripped that from wild fisheries. Now that has good and bad consequences for our marine environment. It offers the possibility of an end to the present free-for-all and the prospect of more control over how we manage our marine resources. On the other hand, while we still use fish protein for our feedstock, it is bad news for sand eels, capelin and anchovies, which of course support much more than human needs. It needn't be like this. In Asia, the Japanese have perfected vegetable protein feedstock which they use extensively in their finfish aquaculture. In this country we are experimenting with small vegetable protein additions, but our basic problem is that the supermarkets are resistant to the notion of farmed fish being fed 'unnatural' diets. Hopefully that will change.

As a shellfish farmer, what I need are:

- clean seas. It is crucial to our branding quality;
- a need for sound management of waters classified for shellfish. In my own case, my farm used to have the highest A classification all year round. Now I have to cope with a downgrading to B classification for 5 months of each year. And this is not a function of better measurement. This is an absolute measure of the number

- of E.coli organisms per ml of sample. This situation is now repeated all up the West Coast;
- measures to alleviate high fuel costs in fragile, rural areas;
 - most of all, seas back in balance. I don't think it is coincidence that we have significant predation from crabs and starfish in a situation where fewer fish are available to eat them and their larvae. The same applies to mats of filamentous bacteria, which used to cover stock for two to three weeks every year and now last for two to three months. That might be a localised eutrophication problem, but it could also be lack of herbivores to deal with it;

As I have said, I am reasonably optimistic for the future. Everybody now recognises the need for change. We are now promised a Marine Bill for Scotland which will dovetail into a UK Marine Bill. Within that, there are plans for Marine Protected Areas (MPA).

Our own fishermen are already taking their own conservation measures with the agreement on real time voluntary closures for the cod fishery and the Government's response in negotiating conservation credits for good practice.

We also have the tremendous development of a bottom-up agreement inspired by ten years of lobbying by the local community to have an MPA with No Take Zone (NTZ) in Lamlash Bay.

The most important development of all for me has been the now accepted notion, at a European level, that the basis of all future management of marine natural resources will be a recognition of the importance of the ecosystem. If Ecosystem Management means anything, given the modern technology available to fishermen, it means that there must be NTZs within protected areas. It is only by removing the pressure from modern commercial fishing in certain areas that fish will be allowed to grow old. And why is that important? I can illustrate this from my own hatchery experience with oysters.

If I take a 6-7 year old brood stock oyster and induce it into releasing its larvae, I will be able to harvest about 2 million larvae. If, on the other hand, I take a 2-3 year old oyster I will be able to harvest between 300,000 and 0.5 million larvae. That is the order of difference which also applies to other fish and shellfish. We are mad to eat into our brood stock, for they represent our capital which we should be investing for the future. New Zealand has been creating NTZs for years. Their Conservation Act of 1974 has resulted in 27 marine reserves over the period until now and they are still developing this. What is most significant about the New Zealand system is that it has the full support of the fishermen who see their catches improve in volume and quality as old fish breed within the reserves and continually replenish areas outside.

My vision for our seas is that we have a full suite of MPAs all around our coast and within those to have NTZs where necessary and a complete ban on bottom trawling. Obviously of themselves MPAs and NTZs will not solve all the problems. We will still need improved gear which allows undersized fish to escape and which is much more selective as to species captured. We will also need to continue with restrictions on fishing effort, including quotas until such times as there is a better balance between fish resources and the effort employed to catch them. To achieve the goal of sustainability in the exploitation of our fisheries we need to think in terms of protecting something of the order of 20%-30% of our seas from commercial fishing.

What of the politics of this. I would make a plea for strategic thinking here. We can't go into this in the same way as we have dealt with wind farms through SPP6. That is not strategic. That is piecemeal and it has the negative effect of undue reaction to every wind farm proposal. The same will be true for MPAs and NTZs if we don't offer an indicative strategy of where these areas will be at the outset. The recent proposal by the Joint Nature Conservation Council to designate the Wyville-Thomson Ridge and the Stanton Bank near the Western Isles as marine SACs is a case in point. There was a huge reaction from fishermen to this with all the usual complaints about the effect on the 80 or so prawn boats that use the areas. Who can be surprised when a designation comes out of nothing with no apparent context. We need to be upfront and honest with the fishermen and state the need for MPAs in the wider context of improved fisheries for all our fishermen. Only then will we be able to regain a proper measure of sustainable use of our seas.