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## Written Evidence on Fisheries

November 2007

WWF Scotland and RSPB Scotland are pleased to provide evidence to the Rural Affairs and Environment Committee. This evidence sets out the context for the scientific advice and outlines measures that can move us towards sustainable stock management and recovery. It sets out some recommendations for consideration, including actions Scotland can take now to safeguard stocks, the marine environment and the industry.

### Key points

- Many of Scotland's main fish stocks are not in a healthy state. ICES<sup>1</sup> have advised a zero catch for West of Scotland and Irish Sea cod. Advice for North Sea Cod is for a minimal catch reflecting tentative improvement in stock. Advice for monkfish is that effort should not increase due to uncertainties with the stock. Catch reductions have been advised for mackerel, whiting, herring and haddock.
- One of the likely reasons for this poor health is the fact that year on year Member States and the Commission fail to follow scientific advice, often setting quotas more than 40% higher than advised.
- There are signs of recovery for North Sea Cod with the 2005 year class being larger than the recent average. However the fishery needs extremely careful management. Young cod need to be left in the sea to mature and spawn. Management of this year class must involve measures that secure a reduction in cod mortality and discarding.
- Levels of overall discards need to be reduced and plans to do this piloted.
- Fisheries management needs to address not just target species but also wider impacts on non target species and marine habitat – taking an ecosystem approach.

### The Scientific Advice

The European Commission Green Paper on fisheries published in 2001 suggested that the poor state of resources was largely the result of setting annual catch limits in excess of those proposed by the Commission on the basis of scientific advice.

Since Commission proposals derive from the DG Fish: Scientific, Technical and Economic Committee on Fisheries (STECF) which often adjusts catch levels upwards to reflect socio-economic considerations, proposals presented to the Council may already exceed the initial scientific advice from the International Council for the Exploration of the Sea (ICES). To further compound the drift from scientific advice, historically Member States have overshot scientific advice by over 30%. In recent years this figure has risen to figures between 42-57% above advised catch levels. To add to this inflationary cycle, the Total Allowable Catches set equate in

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<sup>1</sup> International Council for the Exploration of the Seas (ICES)

reality to total landings and not to total capture (which covers landings and discards) of fish. Total capture can be considerably higher in many EU fisheries due to levels of discarding.

This year ICES announced that there appears to be some hope for cod stocks in the North Sea and as a result they have moved away from their zero catch advice to state that total removals should not exceed 22,000 tonnes. However this equates to less than half of the catch for 2006 and is still a massive suggested cut in catch. ICES is also clear that this must take account of total removal of cod from the sea – i.e. the total amount of fish caught in nets – both landed and discarded cod.

### **Health warning:**

***“The worst thing we could do at this stage would be to slacken our efforts by trying to cash-in immediately on the first positive signs. This would be the quickest road to ruin.”***

Commissioner Borg in his response to ICES 2007 advice

The hope for the fishery is based on a larger than normal incoming year class of cod in the North Sea in 2005. This should be considered in context; the 2005 year class was three times larger than that seen in the previous six years but only a third of the size of the last good year classes in the 1990s, and 56% of average levels. It is critical that this incoming year class is nurtured, allowing them to grow and contribute to the spawning stock in future years. Only by doing this will we reap the benefits of this vital sign of possible recovery of the stock.

The last time there was a positive sign with a significant year class in the 1990s it was swiftly fished out before being allowed to spawn. This contributed substantially to the ongoing decline in the stock. This cannot be allowed to happen this time.

### **Recommendations: What needs to be done for cod stocks to recover?**

Levels of cod mortality need to be reduced. This means reducing discard rates, allowing juvenile cod to survive to spawn and avoiding fishing out high levels of spawning stock. A package to deliver this would need to include a suite of measures, such as:

#### ***Time or area closures:***

- The recent Cod Symposium agreed that there are merits to this approach if used as a “tool” in the toolbox of cod recovery.
- A network of temporal closures related to the life-cycle of the cod populations (including areas associated with spawning grounds, feeding aggregations, nursery areas) to prevent localised incidences of high fishing mortality when cod aggregate.
- They will need to be targeted carefully to avoid damaging displacement of effort.
- Real time closures such as those being trialled by Scottish vessels should also be considered. Large numbers of juveniles in catches will trigger a temporary closure of the fishery and thus avoid large unnecessary catches of young fish.

**Action for Scotland:** Scottish Government should commit to extend the real time closure pilot and work with other Member States to achieve meaningful closures for the protection of juveniles.

#### ***Improve Gear Selectivity:***

- One of the ways to reduce cod fishing mortality is to reduce levels of cod caught and discarded in associated fisheries. The problem of indiscriminate fishing is not a new issue; technical solutions do exist, we just need the political will to implement them.
- Different fisheries have different bycatch/discard problems and solutions need to be tailored to the individual fishery. There is no 'one size fits all' solution. Preventing bycatch of juveniles will present a different challenge to that of preventing bycatch of larger fish in a fishery. Technical measures for reducing bycatch and discarding (increasing gear selectivity) include the use of square mesh panels, coverless trawls, sorting grids or separator panels.
- One positive initiative underway is the trialling of square mesh panels in the *Nephrops* fisheries which reduce the capture of cod in the fishery and thus reduce the amount of cod being discarded by these vessels. In whitefish fisheries there is also the option of an innovative trawl developed in the USA that targets haddock and whiting selectively while allowing the majority of cod to escape.

**Action for Scotland:** Scottish Government should set a mandatory requirement for the use of square mesh panels in *Nephrops* fisheries and pilot whitefish trawl gear that will separate out cod from the rest of the whitefish catch.

**An alternative approach – Bycatch Quotas:** To address difficulties of a 'one-size fits all' approach and working with the catching sector, WWF and RSPB are advocating implementation of bycatch quotas for cod.

The total cod TAC would be set in the same way as it is now and quotas allocated similarly. However there would be no recognised directed cod fishery. All cod taken would be as a component of an associated fishery with the bycatch quota used to limit the mortality of the bycatch species. On reaching the bycatch quota, the fishery or a defined area of the fishery would be closed to all forms of fishing likely to catch the species. Fishing vessels would be put into 'fleet categories' based on type of nets and mesh size that they use.

A bycatch quota allows fishermen to use any means at their disposal, including their detailed knowledge of the sea, to avoid catching excess (i.e. over-quota) levels of cod. For example fishermen could choose to avoid areas of cod aggregations and prosecute 'clean' *Nephrops*, fisheries or continue fishing in mixed fisheries but using highly selective gear. This approach allows the fishermen to choose the best option(s) for their individual circumstances. Importantly, **cod bycatch quotas will enable cod fishing mortality to be reduced while allowing the profitable mixed fisheries to continue being harvested.**

By ensuring that cod discarding is minimised while allowing the legal landing of bycatch quota cod to continue, it would enable the highly profitable associated fisheries such as *Nephrops* and haddock to remain viable. It also addresses ICES advice this year regarding the need to take account of total cod catches – both landings and discards.

An observer programme would have to be established to support it, placing observers on sufficiently representative samples of the different fleet categories to record total cod catch, i.e.,  $total\ cod\ catch = retained\ cod + estimate\ of\ discarded\ cod$ . When the cod bycatch quota allocation for the defined fleet category is near to being reached the Member State would close the fishery for that category and the fishery would re-open the following year.

Bycatch quotas have been used since 1976 for halibut in the Alaskan sablefish fishery and have greatly reduced discard mortality of halibut. This measure, along with conservative TACs, has allowed both fisheries to stay viable.

**Action for Scotland:** It is unlikely that bycatch quotas will be agreed at the December Council meeting, but they should be a top priority in the revision of the cod recovery plan in 2008. Scottish Government should be actively championing their inclusion to support key Scottish fisheries and empower fishermen to make the right decisions for the stock.

**Action for Scotland:** Scottish Government should commit to use onboard observers as standard practice in fisheries where cod is caught as bycatch.

### **Ecosystem approach: Common Fisheries Policy Commitments**

The Common Fisheries Policy requires Member States to adopt an ecosystem based approach to fisheries management (Article 2.1). Under this approach **harvesting must be conducted with minimal impact on juvenile fish, non-target species, and marine habitats**. These commitments are often forgotten in the heat of negotiations at each December Council.

According to the European Commission, annual North Sea discards are estimated between 550,000 and 880,000 tonnes. Action to address the wasteful practice of discarding is needed urgently. Identifying fisheries with high discard levels and developing discard reduction plans for these on a case by case basis must be something Member States are committed to in 2008. Action on discard reduction is fundamentally in line with current CFP commitments, the UK and Scottish fisheries should be playing a lead in promoting at a European level.

There are also important considerations for measures to be taken to address the impact of fisheries on other non target species. The management of sandeel populations in the North Sea represent a good example of this. Sandeels are vital prey for commercial species of fish, such as cod, as well as seabirds, with individual seabird colonies often being highly dependent on very localised aggregations of sandeels. Sandeel recruitment in recent years has been poor, almost certainly due to climate change-induced rises in sea temperatures and changes in the plankton assemblage undermining sandeel larval survival and growth. This has led not only to huge economic losses to industry, but also to breeding failures of sandeel-dependent seabirds on an unprecedented scale. Although environmental factors appear to be the main driver of the decline, however, it is vital that the industrial fishery for sandeels does not make the downturn worse and jeopardise the stock further.

The closure of the 'sandeel box' off the East of Scotland and NE of England in 2000 to sandeel fishing has continued because the Kittiwake population in particular is declining as a result of shortage of its essential sandeel diet. **Given that the impacts of climate change may take generations to reverse, it is important that a sound precautionary approach to the fishery is taken and that the sandeel box remains an indefinite closure.**

**Conclusions** The Scottish Cabinet Secretary will accompany his UK colleague to December Fisheries Council to negotiate a sustainable settlement on behalf of the UK and Scottish fleets. Their mandate is also to negotiate a sustainable settlement on behalf of the fish stocks themselves and the wider marine environment, a point not often reflected on in negotiation discussions.

These aims are not mutually exclusive and with the will from all stakeholders, a win-win outcome can be achieved. A key component of the outcomes for cod will be the inclusion of a package of measures to reduce discarding in associated fisheries and reduce mortality overall. Without this, the package will not be sustainable. Scientific advice is not just to provide a starting point for negotiations, it is there to inform decision making. Overshooting advice by figures of 40-50% cannot be considered sustainable.

With respect to cod, it is clear that if fishermen are able to avoid catching cod for at least the next couple of years then they will reap far greater benefits than they ever will by fishing it out this year. The longer these fish stay in the water the greater their chance of going on to spawn and increase the overall biomass of the stock which in turn will equate to higher tonnages in future years. The choice is there – short term exploitation which will compromise recovery and provide a short term economic fix versus long term economic, social and environmental prosperity.

**For more information please contact:**

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**Glossary of Basics for Fisheries Management:**

- i) **Biology:** Healthy fish populations rely on a mix of age classes so that each year there are enough new fish entering the population (juveniles) and enough fish reproducing and contributing to the stock (mature fish).
- ii) **Fishing a stock:** To fish sustainably the aim should be to avoid catching large numbers of young fish so that they can reach maturity and contribute to the population. Sustainable fisheries will try and avoid targeting spawning aggregations (when large numbers of mature fish come together to spawn) so that all of the mature fish are not fished out at one time, and instead leave enough each year to continue to contribute to the population.
- iii) **Select how & where you fish:** EU fisheries are managed on the basis of quotas and effort management and results in high levels of discarding throughout many European fisheries.

There is a clear need to adopt a suite of measures that will reduce levels of discarding of many species and this can be achieved by looking at where and how fish are targeted. Measures that will avoid the capture of juveniles are key, such as real time closures as being trialled currently by the Scottish demersal fleet. So too will identifying and avoiding areas that are critical to fish during their life cycle such as nursery areas, or areas where mature fish aggregate to spawn. Improvements in the selectivity of fishing will also be a vital tool in reducing levels of discards and in turn total mortality.

- iv) **Total Allowable Catches (TACs) and Quotas:** A TAC is quantity of fish that can be taken from each fish stock each year. EU Member States are allocated a fixed proportion of the TAC as their national **quota**. For example, the TAC for cod in the North Sea in 2006 was just over 23,000 tonnes. The UK quota was nearly 11,000 tonnes of this TAC.