COMMENTS ON EUROPEAN COMMISSION POLICY TO REDUCE UNWANTED BY-CATCHES AND ELIMINATE DISCARDS IN EUROPEAN FISHERIES

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DOCUMENTS THAT COMMENTS ARE BASED UPON

The three documents from the European Commission (EC) that we have examined are:

Commission of the European Communities (2007a). A Policy to Reduce Unwanted By-Catches and Eliminate Discards in European Fisheries. COM (2007) 136 Final. 28 March 2007.

Commission of the European Communities (2007b). Commission Staff Working Document. Impact Assessment Executive Summary. SEC (2007) 381. 28 March 2007. This is an accompanying document to COM (2007) 136 Final.

Commission of the European Communities (2007c). Commission Staff Working Document. Impact Assessment. SEC (2007) 380. 28 March 2007. This is an accompanying document to COM (2007) 136 Final.

DEFINITIONS

There are several definitions of the term “discards” in common usage and it is clearly important to agree one that applies to all EC policy. We have taken the view that any formal definition of “discards” and “discarding” should occur in the main policy document (COM (2007) 136 Final), rather than the two accompanying documents. On the first page of the policy document it states:

“Discarding – the dumping overboard of dead, unwanted fish caught as by-catch – is a serious problem in European fisheries .....”

This is a much more restricted definition than the FAO definition that appears on Page 3. The FAO definition includes live fish, invertebrates and economic practices (often referred to as high-grading, where lower value fish are discarded in favour of higher value fish).

On Page 4 of the EC Policy Document it states: “Discard bans would apply to all finfish and crustaceans. Exceptions may be made where high long-term survival of specific species discarded from specific fisheries has been demonstrated.”

Although there is some confusion here on definitions that will need to be resolved, we think it is reasonable to interpret the EC definition of discarding in this policy as applying to all unwanted

finfish and crustaceans, whether dead or alive. We are unsure the proposed policy will apply to potting, which produces some discards (often in good condition) due to capture of non-target crustaceans or undersize crabs and lobsters. Potting appears to be a good candidate for an exception to the general policy proposed on discards.

TYPES OF DISCARDS

There are several reasons why fishermen discard fish and other by-catch:

1. Specimens that are over-quota.
2. Discarding to comply with catch composition rules.
3. Economic reasons (high-grading).
4. Specimens that are below the minimum landing size.
5. Lack of commercial outlets for edible species.
6. Inedible material (at least for humans) such as small crustaceans, starfish and bryozoans.

Reasons 1-3 shown above involve discarding species that are of relatively high value. It is these practices of discarding relatively high value, edible species that are the most wasteful in terms of protecting edible fish stocks, assuming that most of the discards are dead or die shortly after return to the sea. Although there is a moderate body of data on the fate of discards, it is possible that banning discards of certain groups may be detrimental, if they have even a small survival rate.

Elasmobranchs (sharks, skates and rays) are relatively robust and have no swim-bladder and therefore have a higher survival rate than many teleosts (bony fish). A small study of a bottom trawl squid fishery off the Falklands showed a survival rate of rays of 59% (Laptikhovsky, 2004). A study of spiny dogfish caught in otter trawls of 45-60 minutes duration in the NW Atlantic showed a survival rate of 71% (Mandelman & Farrington, 2006). We suggest that the views of the Shark Trust should be canvassed on this important issue and that long-term research looking at survival rates of elasmobranchs should continue. In addition, the methods used by Aquatonics Ltd to assess the welfare of farmed cod (a contract from the Scottish Aquaculture Research Foundation, SARF Contract 021) could probably be adapted to assess the likelihood of survival of fish that are live at the point of disposal.

Reasons 4-6 (above) for discarding relate to fish and crustaceans for which it will be hard or impossible to find a market. Research by Defra and FRS has shown that the principal reason for discarding fish is the lack of market demand or such low prices that it is not worth holding, handling and storing the fish (Defra, 2006).

Specimens that are below the minimum landing size (Reason 4) may find a human consumption market, but it is more likely that they will need to be taken to pet food or animal food processing plants. We think there is very good reason to try and provide fish meal for aquaculture of fin fish such as salmon, as this will reduce the pressures from industrial fishing for species such as sand-eels. Many fishing harbours are not close to suitable processing plants and the main options will therefore be:

1. Provision of additional facilities at strategic locations.
2. Long-distance transport to existing facilities.
3. Landfill/incineration/power generation.
4. For edible species it may be possible to generate a commercial outlet, either in the UK or mainland Europe. This could be the subject of a desk study by fishery scientists and economists to look at the cost-benefit analysis of marketing and transporting a selected list of candidate species.

ECOLOGICAL IMPACTS OF DISCARDS

All biological material discarded to the sea will eventually be consumed by marine organisms (birds, cetaceans, fish, crabs and other benthic invertebrates, bacteria and fungi). The rate of clearance can be very high, sometimes within a few days (Groenewold & Fonds, 2000). In some heavily fished areas with a high discard rate the discards may have a measurable impact on the availability of easily available floating fish on the surface or carcasses on the seabed. For example, it has been estimated that a single beam trawl in the southern North Sea about 1.3 g m^{-2} ash free dry biomass (equivalent to 6-13% of the annual secondary production of macrobenthos) would suddenly become available to scavengers and to detritivores (Groenewold & Fonds, 2000).

Discarding results in higher densities of birds that can feed on floating fish or scavenging species (eg starfish, crabs, specialist amphipods and fish) on the seabed. It must therefore be expected that there will be some marine species that will decline in density if the ban on discards is effective. An early decision should be made by Defra regarding whether this requires detailed long-term scientific research.

MARINE PROTECTED AREAS & MARINE CONSERVATION ZONES

In May 2004 Germany nominated ten Natura 2000 areas in the offshore areas of its EEZ in the North Sea and Baltic Sea (Pedersen, 2006). The nominated MPAs within the German EEZ account for 31.5% of the total offshore German marine area.

In addition to the UK obligations to identify and designate Natura 2000 sites (SPAs and SACs), the Marine Bill White Paper proposes a system of protected marine areas in UK waters, to be known as Marine Conservation Zones (MCZs) (Defra, 2007). Aquatonics Ltd would welcome a move towards protecting a high percentage of the UK EEZ. In our opinion the final aim should be to protect all the most vulnerable areas and overall to protect 20-30% of the UK EEZ. These areas should be in addition to any short-term closures, referred to as “real-time closures” in the EC documents. However, there may also be an argument for having some areas where damaging fishing activities are banned for a period (say 5-10 years) to allow the seabed to recover, then allowing fishing again at a lower, sustainable level.

MAIN ISSUES TO BE ADDRESSED

1. Should all live fish be landed, regardless of their chance of survival? This can best be answered by Defra convening meetings of specialists to determine whether we have enough scientific information to make decisions on a species by species basis. Advice from The Shark Trust and elasmobranch scientists at Defra should be sought regarding landing live elasmobranchs.
2. Policing of the discard ban policy will be extremely difficult and it will inevitably be the vessels without observers on-board that will be tempted to break any new regulations. We understand that the ban on discards in Norway is not adequately policed. In our opinion it will be necessary for all vessels to have real-time CCTV of critical areas, so that regulators can monitor at any time. This will presumably be seen as intrusive and expensive by the industry. Perhaps the cost of installing CCTV could be paid or subsidised by Defra? The fisheries with the greatest discard rate (eg *Nephrops* fisheries) should be targeted first.
3. Should fishermen be compensated for providing accurate recording of by-catch and material that would have been discarded prior to a ban?
4. Systems to accept various "discards" will be required at each fishery port. Although this is feasible at the larger fishery ports, it is difficult to see how it could be achieved at all the smaller ones. If vessels are forced to land their "discards" at larger ports they may also land the rest of their catch. This will decrease the number of locations on the UK coast where fresh fish is landed and sold, with environmental consequences in terms of food miles and air pollution.
5. At many UK fishing ports and harbours there is an important tourist industry that would be damaged by smells from dead fish etc temporarily stored prior to transport or from fish and crustacean processing works. It may therefore be difficult to obtain planning permission for additional facilities in some locations.
6. The revenue gained from "discards" should be partly re-directed to the fishermen, otherwise the incentive for them to ignore the policy will be very high. Calculating the amounts to be paid will be difficult. The remainder of revenues should go to policing the ban, scientific research and analysis of possible markets.
7. Would alternative methods provide better protection of fish stocks and marine wildlife? Should Defra examine the possibility of having large areas where fishing is banned and other areas where fishermen can retain all the income from landings?
8. Will the proposed ban result in an increased cost of species favoured for human consumption? Presumably the answer is that it will. How elastic is the demand for these fish? Will higher prices deter consumers or will higher prices increase pressure on fish stocks?
9. The UK government should provide more incentives to encourage fishermen to take up other activities, such as producing mussels on rafts and long-lines. The incentives could be in the form of free advice/meetings etc, assistance with marketing and at-cost loan of equipment such as rafts for trial periods. These initiatives would need to comply with European Community competition rules.

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