NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION

ORGANISATION POUR LA CONSERVATION DU SAUMON DE L'ATLANTIQUE NORD



Council

## CNL(02)44

Statement by the Salmon Net Fishing Association of Scotland

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The number of seals (grey and common) at most breeding sites around the Scottish coast has continued to increase at average rates of about 6% and 2% respectively. Thus, in the year 2000 (the last year for which data are available) the estimated number of grey and common seals associated with breeding colonies in Scotland amounted to 114 000 and 32 000 animals respectively. Not only has the number of seals increased but also the number of breeding colonies and haul-out sites particularly along stretches of the coast adjacent to salmon rivers once occupied by active net fisheries. They have also extended their range into estuaries and rivers where they are most frequently seen during the smolt migration season and when each component of the spawning stock is returning in greatest numbers.

In direct contrast, reported Scottish salmon catches between 1960 and 2000 have declined from a peak of 2117t in 1967 to 199t in 1999. Although there has been a significant decline (some 90%) in net fishing effort, the spawning stock has not responded and in some Scottish rivers the fraction of the multi-sea-winter component of the spawning stock which returns to freshwater during the first half of the year may now be incapable of producing sufficient eggs to seed the preferred habitat at or above the respective conservation limit, even though the majority of the members of my Association have delayed the start of their fishing season on a voluntary basis since 2000 by some 6 weeks. Thus the sustainability of this stock component is threatened.

Although large samples have been collected, seal diet studies remain inadequate to assess reliably the contribution made by salmonids to the diet of seals. This situation is unlikely to change because salmon are relatively rare and becoming rarer in the sea and predators can harvest a substantial fraction of the salmon biomass even when salmon constitute a minute fraction of the diet of predators. In this context the results of existing work on the use of fatty acid profiles to determine the diet of grey seals could be extremely helpful and should be made readily available without undue delay. The proportion of harvested biomass is also essential to determine the probable effect on a prey population (salmon) of removing substantial numbers of predators (seals).

Not withstanding these difficulties, various researchers on both sides of the Atlantic have concluded that, despite limitations, there is a sufficient bulk of evidence to demonstrate that seals are significant potential predators on salmon during their marine phase. However, the fraction of the seal population which frequents haul-out sites adjacent to rivers, inlets and estuaries probably includes the major proportion of the animals which target salmon and salmon fisheries. Therefore, this group of animals may be inflicting the greatest negative impact on the salmon biomass and the fisheries. The results of recent research are supportive of this suggestion because they indicate that seals feeding offshore tend to be bottom feeders.

A major cull of grey and, to a lesser extent common seals, at their respective breeding sites, is logistically not possible at the present time. There may also be strong biological reasons why such an exercise may fail to produce the desired effect; a marked increase in the number of salmon returning to spawn and a significant decrease in the impact on fisheries. The only time when the U.K. grey seal population congregates in large numbers is during the breeding season; since these preferred pupping sites are most frequently remote islands, access can be extremely difficult, if not impossible, at the appropriate time of year. Although a massive sterilisation programme might be feasible if the vast majority of the breeding population was located at a small number of readily accessible sites, the Scottish grey seal population does not meet that requirement. In addition, sustained effort would be required over many years in order to have a significant impact upon grey seal populations.

Salmon Net Fishing Association members have been deploying seal scarers to protect their coastal nets and have had some success. However, their maximum effort can only be limited for a number of reasons. Therefore, they request NASCO to encourage home governments to build on their success and, as a matter of great urgency, support investigations designed to test whether the existing non-lethal techniques, including the seal scarers presently on the market, or under development, could be deployed strategically in the field to prevent seals entering bays and rivers where the various life history stages of salmon are confined, by creating exclusion zones. If ineffective in their present form modifications to the instrumentation may be necessary. Limited and targeted shooting may still be required.