

## ASFB/RAFTS policy paper August 2008

### Regulation of Salmon & Sea Trout stocking in Scotland

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#### 1. Introduction

As members are now aware regulations governing the stocking of all species of fish within Scotland are now in force. This new legislation was introduced under the Aquaculture and Fisheries Act 2007. These arrangements do not apply to the Tweed or Border Esk where separate arrangements exist.

#### 2. Legal requirements

The key principle of this policy is that legal consent is required before any stocking of freshwater fish is undertaken in Scotland. For salmon or sea trout in Districts with DSFBs in place, the DSFB is the regulator, as was previously the case under existing legislation. Otherwise, the Scottish Government (through its agent, MSS) is the regulator. Different arrangements apply to the Tweed District.

For salmon and sea trout stocking in a District with a DSFB in place, written consent must be obtained from the Board before any stocking of any life stage of salmon or sea trout takes place. A new development to underpin the roles of both Boards and MSS is the creation of a risk-based assessment procedure which will be developed to ensure similar criteria are applied by the regulators bodies when considering proposals to stock fish.

#### 3. New Assessment Procedure

ASFB and RAFTS are keen that this assessment procedure is sensible and pragmatic yet at the same time reflects existing good practice undertaken by DSFBs and encourages this elsewhere. We are aware that the present level of information available on freshwater fish will make the development of such an assessment procedure at this time difficult for these species. There is a greater body of knowledge on the issues associated with salmon stocking but this is by no means complete, nor is there consensus on many of the complex issues relating to salmon stocking within the scientific and fishery management community.

To that end we have been asked to develop a pragmatic decision structure for DSFBs based on the best advice available to ensure that, where stocking of salmon is undertaken, it is done in an informed way and using consistent principles common to all DSFBs.

This is also consistent with Project 1.3 in the Strategic Framework which states:

***“A Code of Good Practice will be developed for the operation of all hatcheries and stocking programmes within catchments, regardless of species. It will be based on the most recent scientific advice, and will be advised by ongoing developments arising from Project 1.1.”(Project 1.1 is an accompanying code of good practice guidance in fisheries management techniques)***

The view we have given to the Scottish Government is that we must preserve the existing powers of DSFBs to manage and regulate the stocking of salmon and sea trout and build on this by defining and promoting good practice in terms of stocking and preventing bad practice. We are aware that good progress has been made by DSFBs in recent years to refine stocking practice and that much more rational management decisions are being made than was sometimes the case in the past.

#### 4. Policy outline

This policy paper has been developed and agreed by ASFB/RAFTS and forms the basis of a code for DSFBs and Trusts. It has been agreed that this policy can be adaptable and flexible as new findings come to the fore. It is not our intention to create a complex policy which is bogged down in detail, but to advocate the observance of key principles which should address some of the risks associated with stocking. We also provide a short bibliography of reference material relating to stocking which is a useful source of more detailed advice and this will be expanded. We would encourage all DSFBs to consult these publications. This constitutes a core policy and it is the intention to refine this further as we review it annually or as and when new information comes to light.

Whilst ASFB / RAFTS have no legal authority over their members on this issue, reputations of both bodies requires an extremely robust position on this matter. For the purposes of these recommendations, the following definitions are important (these are slightly different from those in the RAFTS/ASFB Guide to Best Practice):

**MUST** – DSFBs should use their legal authority to prohibit such practice

**SHOULD** – DSFBs should strongly advise and influence activities and resort to their powers where possible or appropriate

**RECOMMEND** - DSFBs should provide advice and recommendations but not normally seek to use statutory powers

### 5. ASFB/RAFTS Policy and Recommendations for members

**Note: The policy provisions below apply both to a 3<sup>rd</sup> party applying to the DSFB for consent to stock, and 2) the DSFB itself should it be contemplating a stocking programme.**

#### Important pre-proposal considerations

Any stocking programme being considered by DSFBs of salmon and sea-trout **SHOULD** take into account appropriate advice from the local Fisheries Trust and/or the most recent literature (provided in appendix below). Such programmes **SHOULD** operate on a risk assessment basis to ensure that the biological and financial costs and benefits can be properly assessed.

In the case of nature conservation sites, there are additional considerations and consultation with Scottish Natural Heritage may be necessary. In particular, we draw attention to sites which are designated as Special Areas of Conservation (SAC) under the EU Habitats Directive. These sites have added protection and a restocking programme is likely to be considered as a 'plan or project'. The significance of 'plans or projects' in relation to SACs are high and will trigger a consent process, which will determine if the proposal is necessary for the conservation management of the site, and if not, whether it is likely to have a 'significant effect' on a European site.

Scottish Natural Heritage has produced a guidance leaflet to outline the procedural steps relating to 'plans or projects' in European sites, this includes a flowchart to describe the steps involved. A copy of the guidance can be viewed at:

<http://www.snh.org.uk/pdfs/publications/designatedareas/NaturaSitesHabitatsRegs.pdf>

Before consenting any stocking programme, DSFBs, with the assistance of their Fisheries Trusts (*or where there is no Trust, consult the relevant literature and seek specialist advice*). **MUST:**

- Establish a clearly justified need for the course of action – is it for enhancement, mitigation or restoration;
- Consider any issues associated with designated conservation sites (see above)
- Assess what the likely results and benefits will be from the stocking programme;
- Assess what risks may be involved with a programme;
- How the programme will be monitored to assess its efficacy

## Specific Policy Recommendations 1-4

### Stocking of salmon / sea trout from out-with salmon fishery district

DSFBs **MUST** prohibit this practice. An historic driver for this was the fact that some DSFBs used to sell ova to other rivers which created a market – although this is now uncommon, we feel it is still necessary to re-emphasise the importance of keeping ova/fry within a district or catchment. For logistical reasons, hatcheries out-with the catchment may be used to hold stock native to specific catchments. For such programmes, a clear audit trail of where broodstock was selected from and where subsequent progeny are to be stocked **MUST** be recorded. This should include and confirm a commitment to isolate and separate stocks from different catchments within the single hatchery unit.

### Stocking of salmon / sea trout within district (group of catchments) but between separate rivers

DSFBs **MUST** prohibit this practice. The only exception to this policy would be where, for logistical reasons, hatcheries outwith the catchment are used to hold stock native to specific catchments. For such programmes a clear audit trail of where broodstock was selected from and where and why subsequent progeny are to be stocked **MUST** be adopted.

### Stocking of salmon / sea trout within a river catchment but between large sub-catchments

DSFBs **MUST** prohibit this practice where they have not already done so. This is of particular importance in large rivers where individual sub-catchments are likely to hold genetically different sub-populations that should be protected. A strict exception may be if a particular tributary becomes devoid of stock due to extreme circumstances, for example pollution. This should include and confirm a commitment to isolate and separate stocks from different tributaries within the single hatchery unit if there are known or predicted genetic differences. Where there are long standing mitigation arrangements in place on rivers heavily modified by hydro generation, this policy is not intended to cut across these.

### Stocking of salmon / sea trout which originated from a different part of a river main stem

DSFBs **SHOULD** strongly discourage this practice unless there is no other option and the circumstances are extreme (see '*systems with highly depleted stocks*' in notes overleaf).

## NOTES to policy recommendations

### Additional authorisations

- **Scottish Ministers**

It should be noted that written permission from Scottish Ministers is required by any person wishing to capture wild broodstock during the annual close time by methods other than rod and line. The beginning of the annual close time can be significantly earlier than end of the extension allowed for rod and line fishing and the commencement of the close time coincides with the statutory date the nets cease to operate in a district. It is the legal responsibility of the applicant to ensure that they have secured any necessary authorisation from Scottish Ministers prior to making application to the DSFB. Given that there are two regulators and that one part of the process is dependent on the other, it is strongly **RECOMMENDED** that the applicant co-ordinates their application with both parties at an early stage of the process.

- **Landowner/fishery owner**

The DSFB **SHOULD** ensure that any authorisation granted places a condition on the applicant to ensure that the permission is secured from the owner of the fishery (and the landowner if different) prior to collecting broodstock.

### Record-keeping

All DSFBs **SHOULD** maintain a formal record of applications received, the subsequent paperwork detailing the decision-making process and in particular a formal record of written consent granted.

### Source of broodstock

If an authorization has been granted, the Board should ensure that the authorization conditions require that broodstock should be sourced from the same river, and as close to the target stocking area as possible. It is **RECOMMENDED** that consideration is given to the possibility that salmon/sea-trout populations above and below significant waterfalls and lochs on the river system may be significantly adapted to local conditions and therefore, if a stocking programme is underway, broodstock and subsequent stocking programmes **SHOULD** attempt to keep these populations discrete.

### Systems with highly depleted stocks

In some special cases systems are known to have highly depleted stocks or may even be devoid of stocks of salmon or sea-trout. In such cases it is clear native broodstock cannot be sourced for any stock restoration programme. In these circumstances DSFBs **MUST** seek specialist advice which may seek to identify stocks from nearby rivers of similar morphology or to identify, using genetic techniques, stocks that may be closely related to the original native stock. The presence of a depleted population does not, in itself, verify the need to introduce stock from other rivers or catchments.

### Genetics

With the advent of modern genetic techniques it is now possible to identify discrete populations of salmon and sea-trout within catchments. The precautionary use of stock selected from distinct parts of the system as being likely to be representative of these populations could potentially be compromised by escaped farmed fish (there have been instances where native fish from selected parts of systems have been found to be fish farm hybrids). Care therefore needs to be taken and advice sought using modern genetic techniques to ensure supposedly native broodstock are actually native when there is a risk escaped farmed fish could be present. The preservation of genetic populations within rivers is a key principle of the policy recommendations.

**Smolt ranching** - In some areas smolt ranching is seen as a possible way to enhance existing stocks of salmon. Smolt ranching has been found to be successful in some areas, though percentage adult returns tend to be significantly lower than wild fish populations due to the removal of selective pressures in the juvenile stages of development (under 1% - ranched - 3-8% - wild). DSFBs should therefore have a policy that covers such eventualities. Issues surrounding ranching fall into two main categories:

**Economic** - *what are the actual costs and benefits of ranching and are these affordable*

**Biological/Genetic** - *what impacts might such activity have on wild populations in the system*

It is **RECOMMENDED** that DSFBs when approached with ranching propositions should require the following criteria to be met in any proposal:

- Smolt ranching should source fish from captive broodstock programmes which it is **RECOMMENDED** should select fish according to broodstock management best practice. DSFBs **SHOULD** refuse applications for ranching programmes based on regular requirements for large numbers of wild fish due to the risks associated with removing such fish.
- Smolt ranching programmes **SHOULD** introduce smolts to river systems at a time when they will have minimal impact on wild fish populations ie) just prior to smolting
- Smolt ranching programmes **SHOULD** only be authorised where appropriate measures are in place to ensure that returning ranched fish can be identified and removed from the system to ensure that hybridisation with wild populations is not possible.
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## Annex 1.

### Bibliography of published stocking guidance

| Author                  | Title   | Reference   |
|-------------------------|---|---|
| A. Youngson             | Hatchery work in support of salmon fisheries        | Scottish Fisheries Research Report No. 65 (2007)<br><a href="http://www.marlab.ac.uk/FRS.Web/Uploads/Documents/SFRR_65.pdf">http://www.marlab.ac.uk/FRS.Web/Uploads/Documents/SFRR_65.pdf</a> |
| G. Harris and N. Milner | Sea Trout Biology, Conservation and Management 2006 | ISBN -13:978-1-4051-2991-6 PAGE172 in Chapter 12 Genetics of sea trout with particular reference to Britain and Ireland by A Ferguson   |
|                         |   |   |
|                         |   |   |

**Annex 2.**

**Application form & flowchart for consent to stock salmon or sea trout**

Section 33A of the Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 makes it an offence to stock salmon and sea trout without the prior written consent of the relevant DSFB (or Scottish Ministers where there is no DSFB).

This annex complements the policy provided above and translates that policy into a flowchart to demonstrate the typical process which a DSFB should adhere to in assessing applications to stock salmon or sea trout.

**A simple application form to aid the process is below. All DSFBs should use this. A decision flowchart to illustrate the process a Board should undertake is provided at Annex 3.**

**APPLICATION FORM FOR CONSENT TO STOCK SALMON AND/OR SEA TROUT IN .....DISTRICT**

**1. DETAILS OF APPLICANT**

|               |
|---------------|
| Name          |
| Address       |
| Postcode      |
| Telephone     |
| Email address |

**2. REASON FOR STOCKING**

**ENHANCEMENT, MITIGATION OR RESTORATION – Please provide full details in box below. Continue on a separate sheet if necessary.**

**3. DETAILS OF RECEIVING WATER**

A grid reference should be provided for each point where fish/ova will be introduced:

**4. SOURCE OF FISH**

**Please provide details below of the source of fish.**

Provide information on the names of the watercourses and the locations on them (with grid references) where it is proposed the adult broodstock will be captured. Please also provide the dates during which it is proposed to collect the fish and the numbers of both males and females to be taken.

If fish are to be taken during the annual close time other than by rod and line, have you obtained the consent of the Scottish Government?

**YES**                      **NO**

**5.            DETAILS OF FISH/OVA TO BE INTRODUCED (PLEASE INDICATE NUMBERS IN RELEVANT BOXES)**

| <b>LIFE STAGE</b> | <b>SALMON</b> | <b>SEA TROUT</b> |
|-------------------|---------------|------------------|
| EYED OVA          |               |                  |
| UNFED FRY         |               |                  |
| FED FRY           |               |                  |
| PARR              |               |                  |
| SMOLTS            |               |                  |
| ADULTS            |               |                  |

**6.            DATES WHEN FISH/OVA LISTED IN 3. WILL BE INTRODUCED TO RECEIVING WATER**

**Please provide details.**

**7.            DOES THE SITE OF THE INTENDED STOCKING HAVE ANY DESIGNATED STATUS (IE SSSI, SAC ETC) AND IF SO HAVE YOU CONSULTED SNH PRIOR TO MAKING THIS APPLICATION – IF SO PLEASE PROVIDE DETAILS**

**8.            DECLARATION**

**I CERTIFY THAT THE ABOVE PARTICULARS PROVIDED ARE ACCURATE TO THE BEST OF MY KNOWLEDGE.**

**SIGNED.....**

**PRINT NAME.....**

**DATE.....**

