MONTHLY BRIEFING

Spey Fishery Board

April 2009 www.speyfisheryboard.com

Spey Hatchery and Stocking Policy

The Spey's current hatchery operation was established in 2000 after using Geographical Information Survey (GIS) techniques to map the majority of man-made and natural obstacles to fish passage throughout the River Spey catchment. The areas above these obstacles were evaluated and the Spey Research Committee proposed that these would provide good opportunities for supplementing the Spey's stocks using hatchery-reared Salmon, providing that these areas had suitable in-stream habitat and appropriate broodstock could be obtained. The areas of habitat above these obstacles were at that time estimated to amount to 1,078,000 m2 and by planting juvenile Salmon at a density of approximately 2 fry/m2, it was calculated that around 2 million fry would be required.

However, since 2006 our approach has been refined. In practical terms, some proposed stocking areas have been difficult to access by vehicles, whilst others have offered poor habitat or been shown to result in a poor survival rate for Salmon. These areas have subsequently been removed from our stocking plan. Furthermore, the CASS LIFE and Northern Periphery Projects have opened-up a number of man-made obstacles and the areas above these are no longer stocked because adult fish can now access them and spawn naturally. In addition, recent electro-fishing surveys have identified areas upstream of the natural distribution of Salmon that contain good Salmon habitat and so provide good opportunities for additional stocking. Crucially, these surveys have also provided a better indication of the carrying capacity of areas that have previously been stocked. All of these developments have led to a recalculation of the area available for stocking, which has subsequently been re-calculated as approximately 600,000m2. Planting juvenile Salmon at the same density of approximately 2 fry/m2 means that just over one million eggs will now be required.

Above left: Pupils from Glenlivet Primary School were welcomed to Sandbank Hatchery for a visit on the 10th November 2008 as part of the Salmon Go To School project. (Photos: Jimmy Mitchell, Cairngorm Landscapes)

New Legislation & Guidance

Alongside these changes there has been new legislation to tighten-up on fish introductions and transfers of fish (the Aquaculture and Fisheries Act 2007) and although Salmon hatcheries and stocking are not extensively covered in this legislation, it prompted the ASFB and RAFTS to produce more robust guidelines for Salmon stocking. The Fisheries Research Services report on Hatcheries and Stocking Guidance and other literature have also provided additional guidance. These have advised that areas above natural obstacles, such as waterfalls, should not be stocked because the introduction of Salmon could be disruptive to native Trout stocks.

As a result, with changes in fish access around the Spey catchment, the data from our electro-fishing surveys and the publication of revised guidelines for stocking, the SFB has revised its policy for Salmon stocking as follows:

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Spey Salmon Stocking Policy from 2009:-

- No stocking above natural barriers such as waterfalls
- Target areas above man-made obstructions
- Target accessible areas where salmon are absent and habitat is suitable
- Select broodstock from as close as possible to the target stocking area
- Salmon generally to be raised to fed fry
- Eyed ova used if vehicle access is problematic
- Fed fry - Released from June to August
- Eyed ova - Released from Feb to March
- Continue tissue sampling from all broodstock and the rod fishery
- Improve post stocking monitoring

In October 2008 the SFB Bailiffs collected sufficient broodstock to meet the new requirement and the eggs are currently being maintained under the watchful eye of hatchery manager, Jim Woods.

The use of hatcheries to supplement Salmon stocks remains contentious and the Spey Board continues to explore methods of determining the effectiveness of its efforts. Follow-up electro-fishing studies of areas that have been stocked have been good indicators of stocking success in a particular area and the continued stocking at Spey Dam during the last five years has produced a significant upturn in smolt output. However, operating the hatchery represents a significant expense for the Board and whilst we can monitor the numbers of juvenile fish following our stocking, we currently have no conclusive evidence of whether any of these fish are returning to the catchment as adults. In order to examine this, tissue samples from both the broodstock and the rod caught Salmon are being collected by ghillies and Spey Research Trust staff for genetic analysis in order to determine whether any of the fish caught within the rod fishery have originated from our hatchery stock.

SFB Bailiff Lindsay Grant with a fine example of Hatchery broodstock (Photo: Jimmy Mitchell, Cairngorm Landscapes)

In October 2008 the SFB Bailiffs caught sufficient broodstock to meet the revised stocking requirement. (Photos: Jimmy Mitchell, Cairngorm Landscapes)