



Freshwater Laboratory



The work of the Laboratory is carried out in liaison with Scottish District Salmon Fishery Boards, with independent fishery research trusts and foundations, with angling bodies, and with the Tripartite Working Group, a forum of wild and farmed fish interests also supported by the Scottish Executive. The Scottish Fisheries Coordination Centre is based at the Laboratory.



Introduction

The FRS Freshwater Programme is based at the Freshwater Laboratory, Faskally, Pitlochry and at ancillary facilities in Montrose (Angus), Deeside, Almondbank, (Perthshire) and Shieldaig (Wester Ross). The FRS Freshwater Laboratory is responsible for monitoring the status of migratory and freshwater fish populations in Scotland. It conducts research in support of scientific advice provided to the Scottish Executive in order to help protect fish and promote the development of sustainable fisheries. Laboratory staff also contribute to the salmon management activities of the International Council for the Exploration of the Sea and to the North Atlantic Salmon Conservation Organisation. Work on salmon and sea trout continues to form the majority of the research programme because of the high value of these species and their heavy requirements for stock management advice.

Current activities include:

- Monitoring the catches of salmon and sea trout in Scotland in order to detect changes and follow trends in abundance;
- Estimating the proportions of Scottish salmon populations caught in home water and high seas fisheries to assess the effects of fishing activities on spawning numbers;
- Assessing the long-term effects of both fishing and environmental changes on the abundance and structure of salmon and trout populations;





- Provision of forensic evidence and expert opinion in prosecutions of suspected poachers;
- Undertaking detailed investigations into the genetic differences among populations of salmon, trout and Arctic charr in order to establish appropriate limits for management units and the effects on wild stocks of fish escaped from farms;
- Developing improved techniques for estimating the abundance and diversity of fish populations;
- Assessing the distribution of juvenile salmonid and other freshwater fishes in Scottish fresh waters;
- Assessing the effects of the biological environment on freshwater fish populations, including the effects of fish-eating birds and other predators and competitors;
- Assessing the effects of physical and chemical changes in the freshwater and estuarine environments on fish populations, especially those brought about by water abstraction, pollution, land-use and climate change;
- Studying the development of individual fish and fish populations experimentally, to gain a clearer understanding of the responses of freshwater fish resources to different management regimes;
- Determining the biological status of introduced species, such as rainbow trout and brook charr, and the effects of the exotic North American signal crayfish on native fishes;
- Developing techniques for restoring stocks by habitat improvement or the release of hatchery-reared fish.

For further information on any aspects of the freshwater laboratory programme please contact the Director at the address below. Additional information is available from the FRS website at www.marlab.ac.uk

