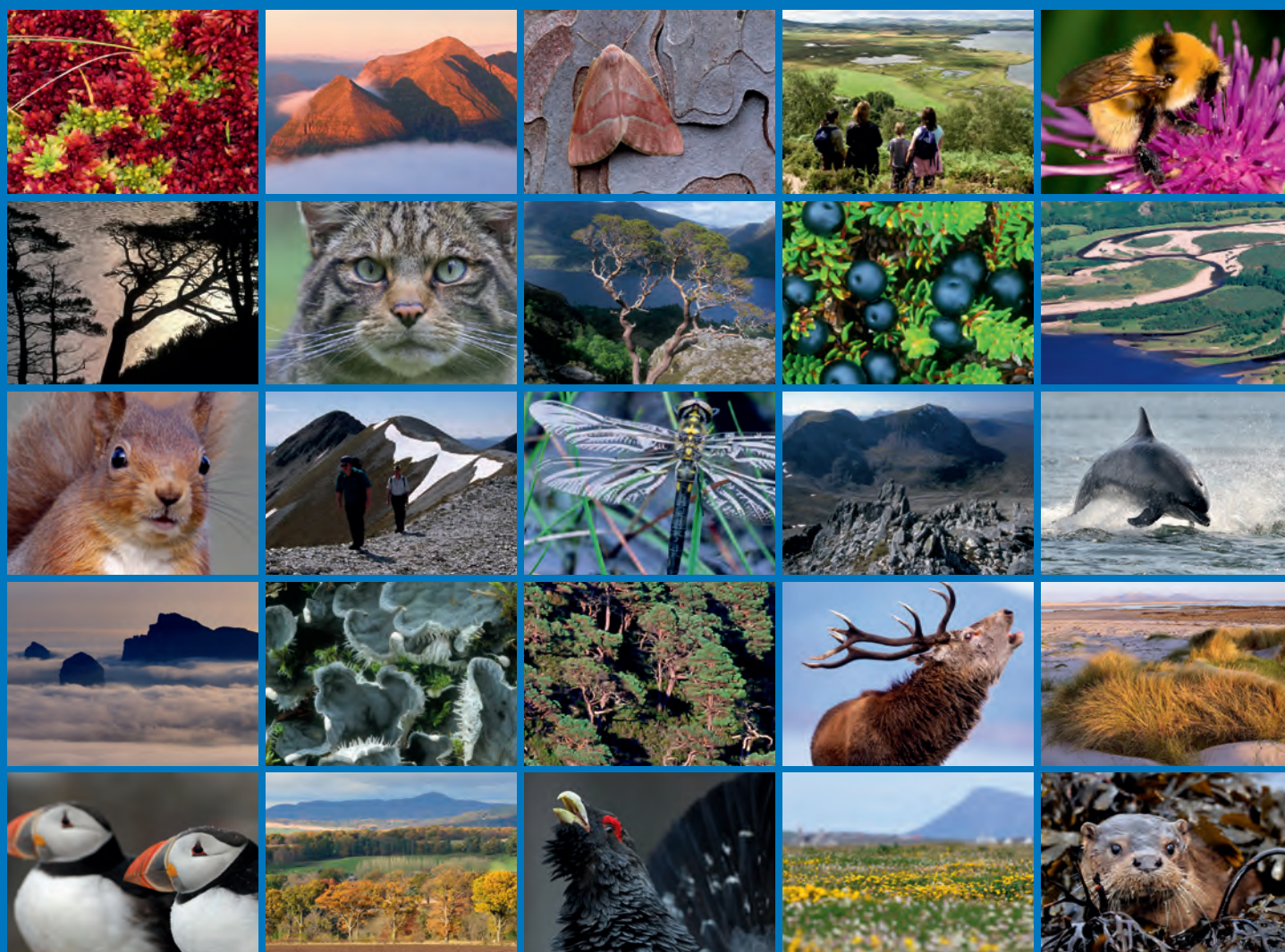


Glochidia surveys of three rivers in Lochaber

Report summary





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COMMISSIONED REPORT

Commissioned Report No. 695

Glochidia surveys of three rivers in Lochaber

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COMMISSIONED REPORT

Summary

Glochidia surveys of three rivers in Lochaber

Commissioned Report No. 695

Project No: 10184

Contractor: Lochaber Fisheries Trust

Year of publication: 2015

Keywords

Freshwater pearl mussel; glochidia; salmonids; infection; habitat; electrofishing.

Background

The freshwater pearl mussel, *Margaritifera margaritifera*, is a globally threatened species and some Scottish rivers support internationally important populations. Concerns have been raised about levels of recruitment and hence the long-term viability of freshwater pearl mussel populations in many rivers. This study looks at the number of mussel glochidia and the availability of their juvenile salmonid hosts in three Scottish rivers to assess recent reproduction and possible bottlenecks for recruitment in the freshwater pearl mussel populations.

Main findings

- Mussel glochidia were found on the gills of fish in all of the three rivers surveyed, but only two glochidia on a single infected trout were recorded for River 3.
- Only juvenile salmon were infected with glochidia in River 2. Juvenile trout and trout-salmon hybrids were infected in River 1 and River 3, but salmon and glochidia numbers were too low on these rivers to clearly demonstrate a preference for a host species.
- Salmon and trout fry were much more likely to be infected than older age classes, though a small number of 1+ parr did carry glochidia.
- Most juvenile salmonids caught carried no glochidia, and infected fish generally had less than 50 glochidia. However, some high infection rates were observed and one hybrid on in River 1 had 335 glochidia.
- Juvenile salmonid densities were poor in River 3 and low in River 1. River 2 had reasonable numbers of juvenile salmonids. However, the results of electrofishing surveys undertaken in February are not comparable with those undertaken in summer.
- Suitable freshwater pearl mussel and juvenile salmonid habitat was present in all three rivers, but most extensive in the River 2.

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