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Translocation of vendace from Derwentwater to safe refuge locations

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Introduction

Vendace *Coregonus albula* is England's rarest fish, occurring in only two locations: Derwentwater and Bassenthwaite in Cumbria. Both populations are threatened, due to eutrophication and sedimentation of spawning substrates in Bassenthwaite and growth of non-native Australian swamp stonecrop in Derwentwater. The presence of fish species not native to these lakes, is an additional pressure on both populations. A target of the vendace Biodiversity Action Plan is to establish reserve populations for Bassenthwaite and Derwentwater. A previous project undertook translocation to Loch Skene and Daer Reservoir in Southern Scotland from Bassenthwaite and Derwentwater respectively. These sites were selected to meet the dual aims of creating reserve English populations and re-establishing two Scottish populations, the original two having been extinct for some decades. Survey work conducted as a follow up to translocation revealed that although Bassenthwaite vendace had established in Loch Skeene, Derwentwater vendace were not detected in Daer Reservoir.

What was done

Given the lack of success in establishing a Derwentwater reserve population a further attempt was made to establish Derwentwater vendace in Daer Reservoir, Bowscale Tarn in Cumbria, and in one other small broodstock site, the purpose of which was to enable any future vendace to be sourced without impacting on the Derwentwater population.

Results and conclusions

The main risk associated with the project was the possibility of not obtaining sufficient eggs for translocation. Despite netting on a weekly basis through a period encompassing the known temporal range of spawning, and at known spawning sites, only pre-spawning and spent vendace were caught. This meant that no eggs were obtained for translocation, and the project was unsuccessful. One possible reason for the lack of spawning fish netted was that known previous spawning grounds were covered densely with the invasive plant *Crassula Helmsii*. It may thus be that vendace have changed spawning behaviour, or were prevented from spawning by the absence of clean gravel substrate.

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English Nature's viewpoint

These findings give increased concern for the survival of vendace in Derwentwater. A further attempt at translocation is planned for winter 05/06. Careful consideration will be given to this, as the prognosis for Derwentwater vendace is now more critical than ever.

Further information

For the full report or other publications on this subject, please contact the Enquiry Service on 01733 455100/101/102 or email enquiries@english-nature.org.uk

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