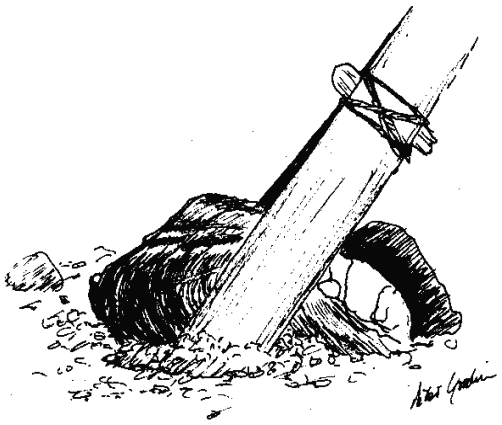
Donich Water

FRESHWATER PEARL MUSSEL SURVEY

Carried out by Peter Goodwin on behalf

of

Hydroplan UK



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INTRODUCTION

As a freshwater pearl fisher, I collected data on the distribution of the freshwater pearl mussel, Margaritifera margaritifera, over a 26 year period between 1971 and 1997. I consulted historical sources, and additional information, some dating back to the 19th century, came from other pearl fishers and their families. However, most of it is based on personal knowledge of rivers all over the UK (and Ireland, and parts of France, Germany, the USA and Canada).

Earlier data I'd collected was passed to M. P. Kerney of Imperial College for inclusion in his ATLAS OF BRITISH NON-MARINE MOLLUSCA, and in 2003, SNH employed me in drafting historical surveys of five rivers in the main Scottish pearl fishery, and one Angus river.

In April 2003, I attended a professional development workshop at the SNH Kinlochewe field station. The course was entitled "Surveying for Freshwater Pearl Mussels," and those who attended were issued with a certificate. Since then I have conducted freshwater pearl mussel surveys for RWE Innogy (RWEnpower), Hydroplan, BMT Cordah, RSK Group, TLS Hydro, and SNH themselves.

THE SITE

The Donich Water is an affluent of the River Goil near Lochgoilhead. The Donich falls steeply from the eastern hills and enters the Goil close to its estuary at grid ref. NN2008 0189, just outside the village, and two hundred and forty metres above the bridge at the tidal limit. Neither river was known to me or my pearl fishing colleagues as a pearl fishery and we had not visited the area previously.

The River Goil flows through a deep, steep-sided glen through which the road to Lochgoilhead passes. For over 3600 metres, it flows through a broad and relatively level flood plain – a characteristic which gives rise to meanders and lower flow rates associated with the formation of habitat suitable for freshwater pearl mussels. For this reason, and because the Donich Water enters it, it was examined briefly en route to the Donich.

THE SURVEY

The survey was carried out on August 12th 2012. The weather was good, with sunny intervals, though a stiff breeze was sufficient to disturb the surface of quieter pools. The water was fairly low after a few days without rain. The River Goil was examined in the vicinity of the bridge at grid ref. NN2002 0229. The water in the Goil was discoloured, possibly by the strong breeze causng waves which washed silt from the banks. However, it was shallow and clear enough for a bank side search to be made. The bed of the Goil is a mixture of fine sand, cobbles and some larger rocks. The flow is sufficiently slow for weeds, and the habitat looked eminently suitable for freshwater pearl mussels. However, none were seen, either alive or dead. No further search of this part of the Goil was deemed necessary since the proposed scheme would affect only the short reach between the confluence with the Donich Water and the tide.

The Donich Water was searched downstream from the bridge beside the site of the proposed power house (grid ref. NN2027 0194). The water was fairly low and clear enough for the search to be carried out from the bank. Upstream, in the power generating zone, the flow was more rapid and large rocks were the major component of the substrate. From there down to the confluence with the River Goil (grid ref.

NN2009 0189), the bed is composed of roughly equal proportions of rocks, cobbles and coarse, gravelly sand. The current was still strong and there was no weed. In these conditions no mussels were expected and none were seen, dead or alive.

Below the confluence with the Goil, the river enters a wooded den where the flow begins to ease. About 80 metres upstream of the bridge carrying the B983 over the river (grid ref NN 1994 0183), the current is slow enough for weed to be present. However, stable sediments were still not evident, and no mussels or their remains were seen. The bridge is at the upper limit of the tide and the search was continued downstream before being concluded at grid ref. NN 1969 0172, approximately two hundred metres below the bridge where the flow became more rapid once more. Neither pearl mussels nor any remains were seen.

CONCLUSIONS

The Donich Water is a small, precipitous river subject to violent spates, ideal for hydro development. Before reaching the sea, it has insufficient low ground run for habitat formation or colonisation by pearl mussels.

The habitat in the River Goil is suitable for pearl mussels, but only upstream of the confluence with the Donich Water. A remnant population may exist upstream, but it would not be affected by a hydro scheme on the Donich Water. It is therefore concluded that a hydro scheme on this river would have no impact on Margaritifera margaritifera.

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