



SECTION 3: THE FISHES OF THE TWEED AND THE EYE

A.3: Arctic Charr *Salvelinus alpinus*



Photo A.3.1: Arctic Charr once spawned in the channel connecting the Loch of the Lowes (left) and St. Mary's Loch (right)

"There is also taken in thir lochs a little fish, called by the country people Redwaimbs ⁽¹⁾ It is about the bigness of a Herring and the belly of it wholly red. It is never seen nor taken but between All Hallows and Martinmas ⁽²⁾, the space of 10 days, and that only in the little stream that runs betwixt the two lochs. It is very savoury meat; and at that season the country people, with plaids sewed together like a net, have taken such store of them that they carried them home and salted them up in vessels for the food of their families"

A description of St. Mary's Loch, 1649, quoted in Russell (1886)

(1) Red Wames, "Red-bellies", the usual Scots name for Charr

(2) All Hallows is the 31st of October and Martinmas is the 11th of November

The Charr is a close relative of the Salmon and Trout, with a similar shape, but is distinguished by its colourfulness. Different populations have different colour patterns – some have gray backs and delicate pink bellies, others have bottle green backs and orange bellies. They do not have dark spots, like Trout and Salmon, but do have light coloured ones of cream or yellow ranging to red or orange. In the British Isles they are a shoaling fish of lochs and seldom reach more than three quarters of a pound in weight under natural conditions. Charr occur throughout the north of Asia, America and Europe and are sea-going north of Latitude 60° N, where resident and migratory forms co-exist, like Sea- and Brownstrout here. Spawning is generally from late



September to December, though in Lake Windermere part of the population spawns in spring, and generally takes place in shallow water near shores or on submerged reefs where there is gravel, though the spring spawners of Windermere spawn at depths of 20 to 30m. It has only recently been discovered that some Scottish lochs, such as Loch Rannoch, contain two distinct and separate populations of Charr, one living deep down and the other nearer the surface: the deeper-living "Benthic" population actually has much larger eyes than the other race of Charr in the loch. Where Charr co-exist with Trout, they are "pelagic" (living in open water) and feed largely on plankton and insects that fall onto the surface. However, in the few places in Scotland where they live by themselves, their diet is of bottom living invertebrates and small fish such as Sticklebacks, just like Trout. It appears that the more aggressive and territorial Trout drive the Charr off the shallow areas of lochs where there is bottom food available and into the open water, where plankton has to be their main food supply (Maitland & Campbell, 1992).

This species lived in St. Mary's Loch, but the only substantial account of them is the one quoted above – there is no record even of what colour form these Charr were. Russell (1886) goes on to note that an unpublished description of Selkirkshire of 1722 made no mention of these fish though listing other species in the lochs from which he concludes that it had become extinct by then. This 1722 description was actually that of John Hodge, which was eventually published in 1906 by the Scottish History Society in Vol. 1 of "MacFarlanes Geographical Collections" and the species he listed for the two lochs were Pike, Perch and Trout. According to Maitland and Campbell (1992), Charr are particularly vulnerable to Pike predation and their arrival could have been responsible in whole or in part for the extinction of the St. Mary's population.

The species was re-introduced to the catchment, to the Meggat and Talla Reservoirs, from Loch Doon in Ayrshire by SNH:

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| 1988-91 | 18,500 Alevins (fish larvae newly emerged from eggs) and a few adults stocked into the Meggat Reservoir. |
| 1987-90 | 131 adult and 31 juvenile fish introduced to the Talla Reservoir. Many adults have been caught since and numerous fry found on the filters of the water intakes showing that a population has established. |

This was one of the measures being taken at that time to preserve rare fish species in Scotland by introducing them to artificial reservoirs (where they would not disrupt existing natural fish communities). Although Charr are common in the Highlands, Loch Doon is the last remaining population in the South of Scotland.

It is just possible that there was (or is?) a second population of Charr within the Tweed catchment. The account of the Parish of Robertson for the Old Statistical Account (Sinclair 1815) that was written in 1792/93 mentions that there were "... *red trout, much resembling that of Lochleven.*" in one of the lochs - not Alemuir - in the upper catchment of the Ale. The only fish from Loch Leven likely to be called a "*red trout*" would be Charr. There is a description of the fishes of Loch Leven published around the time of this reference (Walker 1812) which mentions "*Grey*", "*Burn*", "*Highland*" and "*Bull*" trout but no "*Red Trout*" though both male and female Charr are described. Loch Leven Charr were sold in Edinburgh, so could have been seen by the Minister of Robertson who wrote the account of his parish. "*Red-bellied Trout*" is listed as a name for Charr in Campbell & Maitland (1992) and in both Irish and Scottish Gaelic, "*Breac dearg*" (Red Trout) is a name for Charr.

There is also the intriguing possibility that, just as in Loch Rannoch and many Scandinavian lochs, there was a bottom living population as well as surface one in St. Mary's which might have survived unnoticed after the surface one became extinct. Such a population, spawning 20 or 30m down and so never coming up to the depths fished by anglers could have remained unseen, just as the large-eyed Loch Rannoch Charr did until the 1980's.