

Written submission from Mark Pattinson

The Report considers changes to the existing management structure of Scottish Rivers, and the conservation of river salmon which in most rivers are subject to a rapid decline in numbers.

The existing solution is a one hundred per cent release of all salmon, alive or dead, before July 1st, with a voluntary effort thereafter to release 90%.

The Review together with the Aquaculture and Fisheries Act, 2013, is essential following the rapid drop in the number of salmon returning to the rivers. Salmon angling is a substantial financial contributor to the Scottish rural economy. However fishery biologists and management structures have not solved the rapid fall in salmon returning to Scottish rivers.

The Objective of the Review is to arrest the decline in value of rural Scotland's most valuable assets, the salmon rivers.

Advice from any Scottish or overseas river management, which has succeeded in increasing the number of salmon caught and kept, should be considered.

The most successful Salmon Rivers in this respect are the two small 8 mile long rivers, the Rangas in Iceland. The river beds, being covered with volcanic ash, have no spawning beds. Consequently there are no salmon returning from migration to the rivers. For the last 25 years approximately 400,000 smolts have been annually placed in the rivers. 90% of these fish have exited the rivers, with approximately 12,000 out of 24,000 returning salmon caught each year. The cost of each smolt, grown in hatcheries from Ranga salmon eggs, can be as much as 50 pence. It is accepted both in Iceland and Scotland that the economic contribution to tourism is £1000 per salmon caught on rod and line.

.The salmon in Scottish and other rivers, having spawned, only one in two hundred ova reaches smolt stage for exiting the rivers. The rest are either casualties to storms or predators. The Rivers Ranga in their short summer season of three months records a catch of 12,000 salmon.

The annual cost of stocking 400,000 smolts can amount to £200,000. Consequently the cost of each salmon would be £17. Scotland's commercial advantage over Iceland, is that there are many salmon farm hatcheries with spare capacity. The Revenue to Iceland at £1000 per salmon caught in the Rivers Ranga, is £12 million p.a.

The only river in Scotland to practise a substantial juvenile salmon stocking programme, is The West Coast Carron. The Carron's redds with ova allevin and fry were frequently washed out by storms, and the annual catch reduced to four salmon. The annual catch now is 250 to 400 salmon. A substantial fishing/holiday lodge has been built beside the river. Young, local residents, visitors and others are introduced to angling, the most popular hobby in the U.K. Many other Scottish rivers could follow this initiative for the benefit of Scottish rural tourism.

Regrettably Scotland is rapidly losing anglers to Iceland, Norway and other countries with better fishing records.

The concern that some biologists have is that a hatchery reared smolt is a weaker performer, and may not survive the sea migration. There is insufficient evidence for this theory. When caught, the hatchery reared salmon plays, looks and tastes the same as those spawned and grown naturally in the river. The difference can only be ascertained by examining the fish scales. The advantage of hatchery bred smolts is that 80% of the juvenile salmon, from ova to smolt migrate to sea.. It has been calculated that only 1 ova out of 200 laid in the river survives storms and fresh water predators to the migratory smolt stage.

Through the willing co-operation of the many Scottish professional fish farm hatcheries, the cost of the stocking of salmon smolts will be more competitive than for Icelandic rivers.