

SNH position statement re Loch Leven

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www.snh.org.uk

There have been a number of comments in the Press recently blaming cormorants at Loch Leven for the closure of the brown trout hatchery. SNH do not accept that the decline of the fishery is due to cormorant predation of brown trout. The majority of comments in the Press are based on inaccurate information and understanding. SNH has prepared this note to give further information on some of the issues.

Status of the loch as a National Nature Reserve

SNH and its predecessor body, the Nature Conservancy Council, have been responsible for the NNR management of Loch Leven since the loch was declared a National Nature Reserve in 1964. The primary aim for National Nature Reserves is to safeguard the nature conservation interest for which the reserves were identified.

The site was also notified as a Site of Special Scientific Interest (SSSI) in 1956, part of the site was designated as a wetland site of international importance under the Ramsar Convention in 1976 and designated as a Special Protection Area (SPA) in 2000. Details of these **designations** are available here. The population of cormorants is an integral feature of these wildlife designations. Because of the international wildlife status of the site, there is an obligation by law to prevent any activities being undertaken which are likely to damage the value Loch Leven has for the wildlife.

Angling and management of National Nature Reserve

The numbers and season for angling forms part of the Nature Reserve Agreement with the Estate. The cultural heritage and tradition of a brown trout fishery is recognised by SNH as an important part of the loch's management. The wild brown trout population is one component of the site's conservation importance. SNH wish to see a healthy brown trout population maintained which is essential for the fishery at Loch Leven.

Decisions on demonstration of significant fisheries damage by cormorants

As the Scottish Executive is the licensing authority, it is their responsibility to weigh up the fishery impacts and the potential adverse impact on the conservation status of the birds. It is SEERAD who decide whether or not to award a licence to the applicant - not SNH. It is for the Scottish Executive to content themselves when considering a licence to control cormorants, that there is significant fisheries damage on the basis of available scientific information.

Role of SNH as advisors to the Executive

Our remit to the Executive is to advise on the consequent impact of a cormorant cull/scaring on the qualifying interests of the SPA interest and NNR/SSSI interest.

The basis of our advice to the Executive regarding the licence to shoot cormorants at

Loch Leven is: i) Shooting would cause disturbance to other waterfowl on the site. One of our main objectives for management of the NNR is to provide a safe haven for birds by ensuring that there are only low levels of disturbance. ii) Cormorants form part of the internationally important bird assemblage and have probably been on Loch Leven for centuries. iii) Also, shooting the number of cormorants suggested would be a significant proportion of the birds using the site. iv) Research work undertaken in the late 1990s demonstrated the high daily turnover of cormorants on Loch Leven. Birds regularly travel to the Firths of Forth and Tay and any cull would be largely futile as birds shot would quickly be replaced by others moving in. Cormorants counted on Loch Leven can also be feeding at many other places in Fife and Tayside.

Numbers of cormorants at Loch Leven

SNH co-ordinates fortnightly/monthly bird counts of the whole loch. Our data for the last four winters show a mean number of cormorants of 134. This has to be seen in the context of the large amount of variation in count figures. From a total of 33 counts, the figures for cormorants present on any one day in the winter ranged from 4 to 386 birds. The figure often quoted in the press of 700 cormorants in the winter months in no way reflects an accurate picture of behaviour and numbers of cormorants at Loch Leven. The highest single recorded number of cormorants counted since 1968 was 608 in 1999. Other than the SNH co-ordinated counts, we are not aware of any other formal, systematic counts of cormorants take place at the loch.

Natural heritage status of brown trout at Loch Leven

The brown trout population at Loch Leven does not individually qualify as a natural feature of the SSSI. SSSI notification is based on criteria, which is outlined by the Joint Nature Conservancy Council (JNCC) in their 'Guidelines for Selection of Biological SSSIs', this document can be downloaded from the JNCC website: www.jncc.gov.uk/page-2303. Chapter 16: Freshwater and estuarine fish, details the species for which a site can be notified as an SSSI. As one of the notified features of the SSSI and Ramsar site is a naturally eutrophic loch, the brown trout are a component of this and therefore are indirectly protected.

Our objective is therefore to have a sustainable, healthy population of wild brown trout in Loch Leven, as an important element of the overall ecology of the loch. The focus of our effort in the last decade has been towards reducing pollution levels. Over the last decade a large amount of SNH resource, both in terms of staff time and finance, has gone towards this work. All stake holders and researchers on the loch agree that water quality recovery is occurring and the ecology of the loch, which includes the wild fish populations, is being restored.

Brown trout population size

From the many surveys of the brown trout population since the 1960s, it would appear from the count figures that the population has not declined. We do however accept that these population counts are difficult to do and comparisons between different methodologies can be dangerous. We are therefore proposing further work with the Estate to look at juvenile recruitment to the population.

Predation by cormorants on brown trout

There was a coincident rise in cormorant numbers when the stocking of brown and rainbow trout commenced. This is hardly unexpected as predators will react to an artificially high number of prey. Numbers of cormorants have declined in recent years and are more comparable to counts prior to artificial fish stocking of the loch. We are not clear whether these two incidences are linked. Stocking practice has also changed in the last three years – stocking of rainbows ceased and stocked trout are of a larger size when introduced to the loch and tend not to be taken by cormorants. Research has shown that brown trout, rainbow trout and perch formed the main components of the diet of cormorants at Loch Leven.

Decline in angling at Loch Leven

Algal blooms of the 80's and 90's were a major contribution to the decline in fishing interest on Loch Leven. In our ongoing discussions with the Estate, both parties have been keen to get the message out to anglers that the loch is much cleaner than in previous decades and that it is currently fishing well. The Estate have advised in their press release that much of the problem the Loch Leven fishery faces is associated with changes in market demand for this type of fishing and the difficulty of competing with small, heavily stocked lochs.