



# Species Action Plan

## 'Red-throated diver'



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Living Shetland Biodiversity Action Plan  
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## Species Action Plan

### Red-throated Diver *Gavia stellata*

#### Species profile

##### **UK B/D status**

Not listed in the UK Biodiversity Action Plan

##### **UK lead partners**

Not relevant

##### **Shetland status**

Locally rare, Local Priority Species

##### **Relevant HAP's**

AgriBAP, ungrazed areas, Freshwater

#### **Statutory Protection**

The red-throated diver is specially protected under Schedule 1 of the Wildlife & Countryside Act 1981, it is on the Amber List of Birds of Conservation Concern and listed in Annex 1 of the EC Directive on the Conservation of Wild Birds. The Shetland breeding population is of national importance because of the proportion of the UK population it represents (over one third).

#### Current Status

##### **UK status**

Red-throated divers have a circumpolar distribution and nest as far north in the Arctic as there is available habitat. The population in Shetland is one of the most southerly in the world. They are the most widely distributed of all the species of divers and because of their ability to take off over shorter distances they are able to successfully nest on such small pools.

##### **Local Status**

From the number of place names associated with divers, they must have nested in Shetland for many years; numbers were low in the 1800s and early 1900s perhaps due to shooting and egg collecting. But it is likely that Shetland has always been the British stronghold of this species.

During the 20<sup>th</sup> century numbers increased significantly. A full survey of the population was carried out in 1983 when the estimated breeding population was about 700 pairs. This was followed by the 1994 survey when the numbers had dropped to 390 confirmed pairs, with the total population estimated at 424 pairs, a decline of about 40%. This decline was not even throughout the county and some areas showed little or no decline. The Shetland population represents just over a third of the total British population.

Within the same year breeding success can vary from area to area suggesting that food supply is an important factor in the numbers of chicks fledged. There is also a notable variation from one site to another with some pairs consistently fledging young whilst other pairs fare poorly.

#### Culture and Folklore.

Red-throated divers have been native to Shetland for a long time and the old name of Lum or Loomi gives rise to place names such as Loomi Loch and Loomishun, names that are widely distributed across the map of Shetland.

They are a familiar sight throughout the Isles as they display on lochs or fly calling to and from the sea. They are a particularly well liked species and many people keep a special eye out for the progress of their local pair of divers.

Their wild vocal calls lead to their alternative name Loon (used throughout North America) and there are associations with lunacy and the moon's cycles. Wherever they occur they invariably become part of the local folklore.

Throughout most of its range it is a species associated with weather and changes in the weather. The local name is Rain Goose and its calls have been interpreted as 'We're a' wet, we're a' wet, Waur wadder, waur wadder.' The flight calls have been noted as it flies to the sea as 'Mair weet, mair weet' and as it flies towards the hill 'Drought, drought, drought over a', over a'.

There is a poem that highlights the birds association with poor weather.

***If the Rain Goose flees to da hill  
Ye can geng to da haaf whin ye will,  
But when she gengs to da sea  
Ye can draa up your boats in da lee.***

This is presumably referring to spring as the birds go to the hill to breed and to autumn when they disappear to sea.

## **Ecology & Management**

The red-throated diver is a familiar species through the summer months in Shetland. Although the first adults may be back on freshwater lochs as early as February, most adults don't return to their breeding lochs until late March or April. The lochs that they nest beside can vary in size from the smallest pools to the largest lochs. Usually there is only a single pair on each loch but on a few of the larger lochs more than one pair will breed. The nest is always close to the water's edge, often on a small island or peninsula. Eggs are usually laid from mid May with the chicks hatching in the second half of June. The adults can raise one or two chicks, which they feed by carrying fish in from the sea one at a time. Most chicks fledge during August and the birds migrate south soon after the chicks fledge. Shetland birds winter along the west coast of Scotland and Ireland, some move down the east coast of Britain as far as the Netherlands and Germany, whilst a few juveniles travel as far south as Central France. In recent years, small numbers have started to winter in Shetland lochs but it is possible that these birds are from further north.

## **Current Factors Causing Loss or Decline**

**Disturbance** - It is important that the breeding adults are not disturbed on their breeding sites as the eggs and small chicks are especially vulnerable to predation if the adults are not present.

**Predation** can be from a number of species but Bonxies *Catharacta skua* and large gulls are the most common predators. The birds are most vulnerable when they have eggs or small young when disturbance of the adults by humans can allow predation. Otters *Lutra lutra* occasionally kill and eat chicks and on one occasion have taken an adult.

**Loch size**. - Those pairs nesting on small lochans seem to be more successful than those nesting on large lochs and there are a number of reasons for this. Large lochs are more susceptible to wind effects that can give rise to considerable wave and foam action causing nests to be swamped. The water levels in larger lochs are likely to be more variable, excessive rain causing high water levels and so flooding the nests; dry periods causing the levels to fall thereby leaving the nests high and dry. Anglers often visit large lochs, which may cause disturbance to nesting birds and give easier opportunities for predators; or if the disturbance is extended this causes eggs or small chicks to chill.

**Egg Collectors** - This species has been the subject of attention from egg collectors and collectors from south are known to have visited Shetland on a number of occasions and targeted selected areas to take clutches of eggs.

**Dropping water levels** - In some areas, the outflow streams from lochs have been excavated, which has the effect of lowering the water level and thereby making the loch edge unsuitable for nesting. At other sites fences have been erected close to nesting lochans so introducing a hazard for divers leaving or landing on the lochans.

**Lack of food supply** - Undoubtedly a major factor in the success of breeding pairs and hence the decline or increase of the population is the availability of their main food source – sandeels *Ammodytes spp.* These fish

are of high calorific value, which is important as the adults carry fish individually from the sea to the nesting lochs to feed the chicks. In recent years the availability of sandeels has become limited, detrimentally affecting those seabirds that depend on them as a major constituent of their diet. Sandeels are fished commercially but it is unlikely that the fishery has had a major impact on the stocks, however the fishery is now restricted whilst the stocks are depleted.

### **Current Action.**

An **information leaflet** has recently been published that raises awareness of the species and explains its sensitivity when breeding - it is a useful source of general information and is aimed at raising awareness and copies are available from Scottish Natural Heritage (SNH).

**Designations** A proportion of the population of divers nest on SSSIs or NNRs and there are both SSSI's and SPA's that are specifically designated for divers on the islands of Yell and Unst.

**Annual monitoring** of the species for nesting success is carried out in a number of areas.

**Projects** Two projects to provide artificial nesting sites for Rain Geese have been carried out in recent years by Scottish Water in conjunction with Dave Okill. An island was constructed on a decommissioned reservoir to provide a nesting site once the new water level was established. This overcame the problems associated with bare, unvegetated water margins. On another reservoir a floating island has been provided. As water is abstracted from the reservoir, the level drops leaving the divers nest distant from the water; by providing a raft for nesting the divers can sit happily through a series of water level changes. These projects have been very successful over the three years that they have been operating, with chicks being fledged from both sites in most seasons.

In other areas **interested individuals** have removed invasive waterweeds on small lochs to ensure the availability of open water.

### **Action Plan Objectives, Targets and Actions**

Ensure that the information leaflet is distributed as widely as possible to the target audience in order to raise awareness especially of the problems of human disturbance. Ongoing. Scottish Natural Heritage (SNH), Royal Society for the protection of Birds (RSPB), Shetland Crofting Farming and Wildlife Advisory Group (SCFWAG), Shetland Biological Records Centre (SBRC).

People thought to be acting suspiciously and egg collecting should be reported to the appropriate authorities. Ongoing. Area/Site wardens/rangers. Shetland Bird Club, interested individuals, SNH

The problems associated with the availability of sand eels is being addressed at various levels including the restriction on the local fishery, however more information and research is needed to understand the life cycle, productivity and availability of sandeels. Scottish Natural Heritage, SEERAD, North Atlantic Fisheries College. (NAFC).

Agricultural activities should only be carried out in a diver-friendly manner, e.g. lochs should not be drained and new fences should be placed well clear of nesting lochs so as not to pose a hazard to nesting divers. SEERAD, SCFWAG, Shetland agricultural strategy.

Encouragement should be given to agricultural initiatives that maintain suitable habitats, including appropriate and suitable management schemes. Ongoing SEERAD, SCFWAG, Shetland agricultural strategy

New developments should take into account nesting birds and there should be sufficient room left, away from diver sites, to ensure that hazards are not created or disturbance increased. Ongoing. SIC planning dept, Bird nest sites should be mapped and information distributed on request – SBRC

Consideration should be given to providing artificial nest sites in lochs where developments will affect the water levels. Islands are by far the preferred option as rafts require maintenance and can be difficult to moor. Ongoing. Shetland Bird Club, SNH

Continuation of the ringing programme that Shetland Ringing Group are co-ordinating. Ongoing. SRG.

## **References.**

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## **Key Contacts**

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