



# Species Action Plan

## 'Merlin'



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Living Shetland Biodiversity Action Plan  
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## Species Action Plan

### **Merlin *Falco columbarius***

#### 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

##### **Statutory Protection**

The merlin is specially protected under Schedule 1 of the Wildlife & Countryside Act 1981, 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 population was of national importance because it made up 8% of the UK population.

#### Current Status

##### **UK status**

**The Shetland population formerly represented about 8% of the national total but has halved with the recent decline and probably now stands at less than 20 pairs. In some years, chick production is low with poor hatching rates and low brood sizes. Measurements of Shetland birds show that the local population is closest in size to the Icelandic sub-species *F. c. subaesalon*.**

Merlins are circumpolar, breeding throughout northern Eurasia and northern North America.

##### **Local Status**

They are regularly seen throughout the winter, and no more than a couple of dozen birds are present.

They normally overwinter on the larger islands, although occasional records show they have been present on some of the smaller islands.

## Culture and Folklore.

**It is likely that merlins have always nested in Shetland within living memory and it is a species that has been recognised as far back as Viking times - the old Norse name "Smirl" appears in a number of place names around the Islands such as Smirlee Field, Smirlees Dale and Smerla Water. The species is known to use the same traditional areas for nesting year after year, even returning to former nest sites when reoccupying a territory that has been abandoned for a number of years, provided that the habitat is still suitable.**

During the days of falconry, a person's position in society designated which species of bird it was appropriate for them to fly; the merlin was designated for a lady.

The local name most commonly used today is "Peerie Hawk" (i.e. little hawk).

#### Ecology & Management

The merlin is the smallest British falcon and Shetland's only regularly breeding bird of prey. It occurs throughout upland Britain but it is thinly distributed and nowhere is it common. In Britain, breeding is strongly linked to heather moorland - the nest itself is usually in deep heather, often in an old crow's nest and usually

on sloping ground although occasionally an inland cliff will be used. The merlin feeds mainly on small birds - in Shetland its main prey species during the breeding season are wheatear, skylark and meadow pipit; all birds common on the hill.

Most of the Shetland merlin population is migratory and usually only a handful of birds overwinter. All juveniles and most of the adults leave the Islands for the winter and disperse widely in a southerly direction. Breeding adults return in March and April. Ringed birds have been found wintering through England, Ireland, Germany, Belgium, France and as far south as central Spain.

This species has always been regarded as widely distributed through the Islands but there are historically documented sites and areas that have not been used for many years. Merlins are notoriously difficult to survey and much of the historical information is anecdotal.

After a number of years of intensive survey work by members of the Shetland Ringing Group, the breeding population in the late 1970's and early 80's was estimated at about 30 pairs (Okill *et al*, 1980). Since then there has been a slow decline and the species now no longer nests in some areas. There has for example, been a large reduction in the North Isles – on Fetlar up to three pairs have nested where none now nest and in other areas breeding is only sporadic. The decline in numbers coincided with a decrease in clutch and brood sizes together with lower fledging success (Ellis & Okill 1990).

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

There are likely to be a number of reasons that have caused the decline in breeding numbers over the past 20 years:

***Increased levels of pollutants in the food chain*** - Analysis of addled eggs showed evidence of raised levels of mercury, PCBs and other chemicals, including pesticide residues probably picked up whilst the birds are in their wintering areas from prey that has fed on pesticide-treated seeds. Such chemical contamination typically results in small clutch sizes, easily damaged eggs and the low hatching rates for chicks, as has been seen since the early 1980's.

***Loss of breeding sites*** - There has been a loss of traditional breeding sites due to re-seeding of hill ground, heather burning, overgrazing and heather damage by winter moth larvae.

***Ground predators*** - Breeding adults seem to be reasonably capable of driving off avian predators but cannot deal so effectively with ground predators and on occasion, nests have been found predated. The spread of feral ferrets is a cause for concern in this regard.

***Egg collection*** - The species has been the subject of attention by egg collectors, who have occasionally taken clutches of eggs.

### **Current Action**

The Shetland ESA scheme has brought about a reduction in sheep stocking densities on many areas of hill. This should have a beneficial effect on heather moorland and the growth and quality of heather.

The general reduction in the use of the more persistent pesticides in seed dressings should reduce the quantities of these toxic compounds in the food chain.

Support should be given to the present initiatives to reduce or remove ferrets, and the introduction of any ground predators or the expansion of their present ranges should be resisted at all levels.

There are a number of statutory designations (e.g. SSSIs) covering parts of Shetland's moorland that incidentally include some merlin sites, however, because of the dispersed nature of nesting, only a small proportion of the breeding sites fall within designated areas.

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

### ***Maintain and enhance the population and distribution of merlin in Shetland***

Promote awareness of the importance of good heather and hill ground as a habitat on a yearly basis through a media campaign. Ongoing. SCFWAG, SNH, SEERAD, AgriBAP

Monitor the population using specific targeted surveys and co-operate through national surveys organised by BTO so that further declines or increases are recorded. Ongoing. Shetland Ringing Group, Shetland Bird Club, RSPB

Encourage agricultural initiatives that maintain suitable habitats, including appropriate grazing regimes and suitable management schemes. ESA, SEERAD, Shetland Agricultural Plan (SIC), AgriBAP (Interreg funding), SCFWAG.

Minimise disturbance in breeding areas, by the continuation of not licensing nest photography in Shetland. SNH. Ongoing

Investigation into the damage done to heather by winter moth within the next 10 years. SNH, SCFWAG  
Remove feral ground predators and ensure that feral ferrets are not introduced into new areas. This issue has been addressed in the EIA for the Bressay bridge. Shetland Agricultural Plan, SNH, SNH, SIC, SCFWAG

### **References**

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