



Snow bunting

Plectrophenax nivalis

Status

Amber listed: BR
Non-SPEC
Schedule 1 of WCA 1981

National monitoring

National survey: 1999.
Rare Breeding Birds Panel.

Population and distribution

In the UK, snow buntings breed above the treeline in montane plateaux and corries of the Scottish Highlands (*88–91 Atlas*). The population has apparently increased in the last twenty years, and this is thought to be due both to increased observer effort and to a genuine increase in numbers (*88–91 Atlas*, Watson and Smith 1991). The current breeding population is estimated at 70–100 pairs (*Population Estimates*).

Ecology

In the breeding season snow buntings feed mainly on insects and their larvae. Nests are well hidden under rocks or scree boulders and contain 4–6 eggs, laid between late May and mid-July. There are often two broods, the young fledging in June–August (*Red Data Birds*).

Breeding season survey – population

This method is based on Amphlett and Smith (1995) and was designed to monitor large-scale changes between years for large sites with about five or more snow bunting territories. For one site, at least, the method has been shown to provide a reliable estimate of the population.

Information required

- number of singing males
- summary map of all vantage points and registrations.

Number and timing of visits

At least five visits during mid-May to mid-July, with at least five days between each. Complete each visit on the same day. If the area is relatively unknown, make an additional early-season visit to choose suitable vantage points; for such sites you may need to make more than five bird survey visits as birds may be at low density and hard to detect.

Time of day

Avoid the period two hours after dawn, and two hours before sunset. Each visit to each vantage point should last 30 minutes.

Weather constraints

All counts should be made in settled conditions. Wind speed must be low enough to allow singing birds to be heard.

Sites/areas to visit

Wherever summering snow buntings have previously been reported, or where suitable habitat occurs: such areas will be montane, mostly on hills with some ground above 3,000 feet (lower in the north), and consist of rocky terrain (scree and boulder fields) on plateaux and in corries, often near snow and ice.

Equipment

- 1:10,000 OS map of the area
- prepared field maps and a notebook
- compass and safety equipment
- Schedule 1 licence.

Safety reminders

Ensure that a reliable person knows where you are and when you are due back. Carry a compass and know how to use it and, if possible, work in a team. In all upland areas carry spare warm clothing, a plastic survival bag, whistle and food supplies.

Disturbance

Egg-collectors may be a threat to this species so keep all records confidential. During the survey there should be few problems with disturbance. Even though snow buntings are quite confiding, there is no need to get close to nests or to individual birds.

Methods

Mark the boundary of the entire survey area and the positions of the fixed vantage points on the map. The same points (or at least within 50 m of these points) will be visited in subsequent years to allow between-year monitoring, so maintain a record of their precise locations.

If the survey area is relatively unknown, make a visit early in the year (before bird surveying starts) to choose suitable vantage points. These should give a good view of the surrounding area and should be no more than 1 km apart.

On each of the five survey visits, spend 30 minutes at each vantage point. Sit down and look/listen for any snow buntings. Beware that often there may be no activity. Take a new field map with you on each visit and mark on it the locations and sex of any snow buntings recorded. Other particulars, such as behaviour, and presence of nest or young, should all be mapped if discovered. Use standard BTO codes (Appendix 1). Cross-reference all records to a notebook where you can give further details (eg observer names, times, weather).

The same male can often sing from rocks several hundred metres apart, so try to obtain records of birds singing simultaneously. This will help to determine whether two male song registrations are from one male or from two neighbouring males. It can also be helpful to sketch the black-and-white plumage patterns (especially the head, mantle and wing-coverts) of each male to facilitate individual recognition.

On smaller sites, it might be better to reduce the total number of visits to three but to spend longer (1 hour) at each vantage point (R Smith pers comm).

At the end of all visits report the number of singing males recorded at each vantage point on each visit and the mean number of singing males

recorded across all visits to the site (the latter is the most useful figure for between-year comparisons).

Also provide a map showing the survey of the boundary area, the location of the vantage points and a summary of bird registrations. Clarify which records were from which visit by writing a visit-specific code (eg A, B, C, etc) against each.

References

- Amphlett, A and Smith, R (1995) *A Method for Monitoring the Snow Bunting Breeding Population in the Central Cairngorms*. Confidential report to RSPB.
- Watson, A and Smith, R (1991) Scottish snow bunting numbers in summer 1970–87. *Scottish Birds* 16: 53–56.