

Providing supplementary food as a conservation initiative for twite *Carduelis flavirostris* breeding in the South Pennines near Midgley, West Yorkshire, England

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SUMMARY

The twite *Carduelis flavirostris*, is a small finch which has undergone serious declines in the UK. In the Pennine Hills, northern England, feeding stations were established as a stop-gap prior to instatement of 'twite-friendly' meadow-management to try and bolster breeding twite populations. Unlike two other feeding stations in the Pennines that attracted many twite in the pre- and post-breeding periods, twite utilised the feeding station rarely and only in very small numbers. If placed closer to natural feeding areas in may have promoted greater usage. This small twite colony was also situated in an outlying area, whilst the two other stations were along local migration routes, again perhaps accounting for the paucity of use. Careful siting of feeding stations is therefore required, based on foraging areas already known to be utilised and preferably in areas where pre- and post-breeding flocks gather.

BACKGROUND

The twite *Carduelis flavirostris* is a red-listed species in the UK that has undergone a serious population decline and range contraction in recent years. One potential reason for this decline is the loss of suitable feeding sites in their upland breeding grounds. During the breeding season twite rely on a range of wild weed seeds for food which formerly, in traditionally-managed upland hay meadows, were abundant. However, due to changes in agricultural practice many meadows are now subject to an early cut for silage production rather than being left until the summer and cut for hay. In consequence many weeds no longer have time to mature and set seed before they are cut. For this reason, it was decided that provision of supplemental feeding sites would be a useful initial conservation tool to bolster populations until suitable 'twite-friendly' meadow management could be re-instated through the Countryside Stewardship scheme in conjunction with local tenant farmers.

ACTION

Nyjer seed *Guizotia abyssinica* was donated by CJ Wildbird Foods and delivered by the Royal Society for the Protection of Birds (RSPB) to the site north of Midgley, Calderdale, West

Yorkshire. An area of clear rocky ground at the bottom of an abandoned quarry was chosen as a suitable feeding station. Considerations for the location of the feeding site included:

- i) being within a 2 km radius of a small nearby breeding colony (2 km being the average distance that twite travel between the colony and their feeding areas)
- ii) being fairly flat and devoid of tall vegetation (to allow for both capture of twite for a colour ringing programme and to make it easier to see the colour ring combinations of feeding twite)
- iii) being an area where birds were occasionally seen to roost and feed naturally
- iv) being accessible to volunteers, so that it would be easy to continue to put out a constant food supply

Feeding station 'Station 3', established in the spring of 2002, was located approximately 1 km from a small colony of approximately six breeding pairs of twite. Nyjer seed was subsequently provided throughout the year, including the winter when most birds will have migrated to coastal wintering grounds. Seed was put out on a weekly basis, enough being

added to create a thick line of feed about 2 m in length and 5 cm in width. Consideration for the amount of seed used included:

- i) yearly amount available from the sponsoring company
- ii) taking into account compensation of loss of seed due both to consumption by non-target species e.g. stock dove *Columba oenas*, other finches, and the effects of wind
- iii) average flock size using the site
- iv) how often they were likely to utilise the feeding station

CONSEQUENCES

The feeding station only attracted twite on a few occasions and these only consisted of pairs or single birds. This could have been due to several reasons. Firstly, the nearby breeding colony was much smaller (about six breeding pairs) than two other colonies (20 to 30 pairs each) in the South Pennines where feeding stations (Stations 1 and 2 – Raine 2004a and 2004b) had also been established and subsequently well-used by twite.

Secondly, the placement of the feeding station could have been a factor. If it had been closer to more frequently used natural feeding areas it may have stimulated greater usage in the pre- and post-breeding seasons. These were the optimal periods when twite were observed most frequently using the other two feeding stations (located approximately 12 km away from Station 3).

Finally, and perhaps most significantly, as well as Stations 1 and 2 being located close to large colonies, they also appear to lie along a well-used localised migration circuit. Birds from both colonies moved between these two stations before winter migration and were joined by twite from other areas, with large post-breeding flocks gathering in the vicinity prior to migration. Station 3 on the other hand, appeared to be situated in an outlying area, with breeding twite vacating the area after the post-fledging period and subsequently being observed using both Stations 1 and 2 at this time.

Conclusions: Placement of supplementary feeding areas to ensure greatest benefits requires careful selection based on several factors. These include using already established foraging areas to allow a greater possibility for birds to locate the new food source, and knowledge of local migration patterns in order to target areas where post-breeding flocks gather prior to migration.

REFERENCES

- Raine A. (2004a) Providing supplementary food as a conservation initiative for twite *Carduelis flavirostris* breeding in the South Pennines near Worsthorne, Lancashire, England. *Conservation Evidence* 1, 23-25.
- Raine A. (2004b) Providing supplementary food as a conservation initiative for twite *Carduelis flavirostris* breeding in the South Pennines near Littleborough, West Yorkshire, England. *Conservation Evidence* 1, 26-28.