Artificial feeding to attract wild birds close to a viewing area at Belfast Lough RSPB Reserve, Antrim, Northern Ireland

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SUMMARY

At a nature reserve in Northern Ireland, feeding regimes were investigated in an attempt to attract wildfowl and other birds close to public viewing areas. Wildbird mix proved to be very attractive to ducks, especially mallard *Anas platyrhynchos*, who dominated and excluded other species. White millet, with smaller seeds, was less attractive to mallard but attracted black-tailed godwits *Limosa limosa*, Eurasian teal *Anas crecca* and a range of other species. The birds will now feed within a few metres of the visitors observation hide.

BACKGROUND

People enjoy birds most when they can see them well, so if the view is a dot through a telescope, many may be disappointed. This could have been the case for the views of birds on the Harbour Lagoon at Belfast Lough Royal Society for the Protection of Birds (RSPB) Reserve (National Grid ref: J 370770), Northern Ireland. The lagoon (roughly 300 m sq) is a shallow freshwater wetland and the public part of a wider habitat network on Belfast Harbour Estate. At high-tide shorebirds gathered to roost but, in common with the wildfowl, they instinctively kept a safe distance from people. Herein lay the disappointment as the RSPB had 'inherited' a purpose-made visitor centre designed to deliver the best panorama. However, whilst the building gave excellent views, the problem was that the shoreline had been swamped by vegetation and the little amount of open ground that remained that held most birds, was in the opposite corner of the lagoon.

Therefore, in order to try and attract birds nearer, a regime of supplying food was instigated, slowly drawing in birds by distributing food closer and closer to the viewing area.

ACTION

Initial attraction of birds by providing 'Wildbird Mix': In an attempt to entice wildfowl and other birds into the lagoon, 'Wildbird Mix' (a mix of coarse and fine seeds) was broadcast along the water's edge distant from the viewing area (known as 'The Observation Room'). This was done at night to minimize disturbance to the birds. Initially, mallard *Anas platyrhynchos* and moorhen *Gallinula chloropus* quickly responded and provided a 'comfort blanket', which in turn drew in teal *Anas crecca*, wigeon *Anas penelope* and suprisingly, black-tailed godwit *Limosa limosa*. However, mallard quickly came to dominant eating the larger seeds in the seed mix and keeping other bird species away.

Feeding to attract 'desirable' species: Gradually changes were made in the food supplied with a switch to white millet (£10 for 25 kg). White millet seed is tiny and being so small it takes more time for birds to find them in comparison with larger seeds. The seed was broadcast by hand and scattered at low density - if clumps or dense patches were visible then mallards and corvids were drawn in. The key was to achieve an 'invisible' (to the human eye when cast) distribution of seed over a wide area. Seed was spread over distant areas first, and when the birds appeared to have gained confidence they were gradually teased closer by scattering seed nearer to the viewing area.

CONSEQUENCES

Species attracted to the feeding area: After three years of refining the feeding system, in 2005 few mallards (which do not find it worthwhile to seek out widely scattered tiny millet seeds) but many black-tailed godwit, wigeon and teal were attracted. A wide range of others species - from lapwing Vanellus vanellus to water rail Rallus aquaticus - have also been drawn in. The millet-eating species were also found to attract many others that did not eat the millet. Teal feed intensively on the millet, whilst wigeon which graze among them seldom ate the seed. Several species of shorebird also feed 'naturally' amongst or on the edge of flocks of black-tailed godwit (e.g. ruff Philomachus pugnax, curlew Numenius arquata, common snipe Gallinago gallinago, redshank Tringa totanus, common sandpiper Actitis hypoleucos and whimbrel Numenius phaeopus).

Wildfowl and shorebirds have now grown accustomed to the presence of people only a few metres away behind the double-glazed windows of The Observation Room (Photo 1).

Provision of food: Millet, which used to be scattered nightly or nearly so, is now used only as an occasional enticement and is distributed, on average, two nights per week. This is sufficient to keep the birds interested so that, through the 'reward' of irregular food, they have progressively accepted the presence of benign human onlookers. It appears that almost all grain is found and eaten although there is a worry that uneaten seed could rot, attract undesirable rodents such as brown rat *Rattus norvegicus*, or lead to an outbreak of disease.

As a precaution, feeding is stopped periodically to gives time for the habitat to rest and 'clean' itself, and to let it recover from the effects trampling by large numbers of birds (especially prevalent during periods of wet weather). Also sparrowhawks Accipiter nisus are attracted as a consequence of generating large numbers of birds to a relatively small area. Sparrowhawks predate on some of the smaller species and tend to make all of the birds edgy and potentially avoid the feeding area close to the Observation Room. Thus this non-feeding period with reduced numbers of birds means that sparrowhawks do not become too habituated. From time to time however, sparrowhawks can become almost tame, but they are also hugely enjoyed by visitors.

Hide design: Hide design is an important consideration. Although it is possible to open The Observation Room has glass windows, this is prohibited - opening even one window will spook most of the birds. From the outside the birds see and accept people moving about, however, most human noise is eliminated, which is important. Having gained the birds' trust over several years, activities that might lead to nervousness are not permitted (e.g. flash photography).

Conclusions: Wildbird mix proved to be very attractive to ducks, especially mallard, which became dominant over other species. A finer seed (white millet) attracted more desirable species, such as the black-tailed godwit. Casting distant to viewing areas at first to gain the birds' confidence and then drawing them closer by scattering seed closer to the viewing area proved a successful technique. The seed was scattered at night to reduce disturbance, this may or may not be prudent at other localities dependant on site characteristics and species present. Feeding areas should be monitored to ensure that the food provided has all been consumed. Periodically feeding should cease to give time for the ground to 'clean' and recover from trampling.

In designing feeding areas it is also worth considering the width of the ground that separates the viewing area at Belfast Lough from the edge of the lagoon. In effect the birds can roam over a dry land area about 30 m in width. This means that if they congregate at the water's edge, the nearest birds are only approximately 30 m distant.



Photo 1. Black-tailed godwits as seen from the Observation Room, Belfast Lough RSPB Reserve.

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