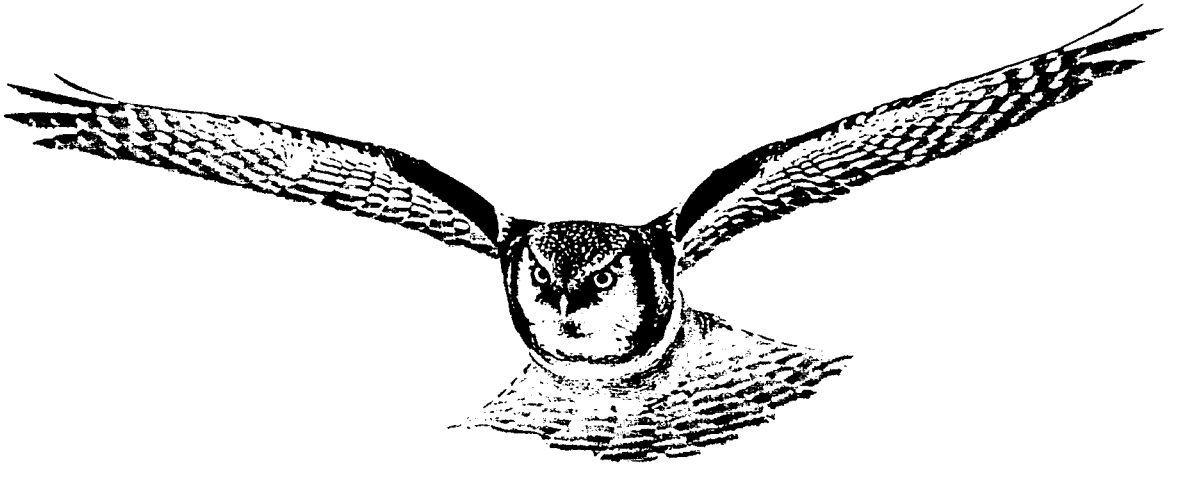
British Birds

February 2004 Vol.97 No.2



Taxonomic status of Macqueen's Bustard

Macqueen's Bustard in Suffolk

Best Bird Book of the Year 2003

County and local bird reports

Male Blackbird defending Holly fruits

Some birds are able to switch from non-aggressive social foraging to the defence of a food source. This ability, which may in fact be widespread in birds, has so far been investigated mainly in nectar- and fruit-eaters; even so, relatively few instances of birds defending fruits have been recorded. Snow & Snow (1988) described in detail the defence of Holly *Ilex aquifolium* trees by Mistle Thrushes *Turdus viscivorus*, in which single birds or pairs prevented other birds from feeding on the fruit and were thus able to conserve a long-term food supply. This note describes a male Blackbird *T. merula* defending a fruiting Holly tree.

Observations were carried out in Oxfordshire on four Holly trees which Blackbirds and Redwings *T. iliacus* had been seen visiting to feed on the fruits. The trees were observed from October 1989 to January 1990. One tree was defended by a male Blackbird, easily recognised individually since one of the feathers on its right wing was white. Each visit by an individual bird was recorded as a feeding visit if the bird was seen to eat, or try to eat, at least one fruit. Meal size (number of fruits eaten), any interactions between the defender and the other birds feeding on the tree and, where possible, excretion of seeds (either by regurgitation or defecation) were recorded for each feeding visit.

Table 1 summarises the observations on this tree, covering a total of two and a half hours. Mean meal size of the defender and female Blackbirds were similar, while that of male Blackbirds was smaller than the defender's. The difference in meal size between the defender and all other Blackbirds was not significant, however. Females were less often chased by the defender, compared with male Blackbirds and

Table 1. Observations on the foraging behaviour of Blackbirds *Turdus merula* and Redwings *T. iliacus* feeding on fruits of a Holly *Ilex aquifolium* tree defended by a male Blackbird, Oxfordshire, winter 1989/90.

	Blackbird defender	Female Blackbirds	Male Blackbirds	Redwings
No. feeding visits	13	5	19	2
Meal size – no. berries: (mean, ±SE, n)	6.7 (±4.5, 3)	7.0 (±1.6, 4)	3.7 (±3.1, 10)	18 (n=1)
Visits when chased by defender (%)	–	20	88	100
Total fruits eaten by (%)	19	27	36	18

Redwings. The total number of fruits taken by all intruders combined was significantly higher than the number taken by the defender (81% compared with 19%, respectively).

We are not aware that defence of a Holly tree by a male Blackbird in this way has been documented before. The only comparable case is that of a female Blackbird which defended a Holly temporarily after it had been abandoned by a defending Mistle Thrush (Snow & Snow 1988). Some territorial adult Blackbirds, both males and females, may defend fruit sources within their territories during the winter, but compared with Mistle Thrushes they show a less developed form of this defence behaviour. It seems that the male Blackbird we observed was not really able to prevent other birds from feeding on the defended tree: the mean number of fruits eaten by an intruder (of any species) per visit in the defended tree was found to be 6.4 ±4.3 (n=13), compared with 5.4 ±4.3 (n=10) for undefended trees. This might be explained by the Blackbird's size, which is a key factor for dominance: Blackbirds are in the middle of the size range of the five thrushes (Mistle Thrushes and Fieldfares *T. pilaris* being larger and Song Thrushes *T. philomelos* and Redwings smaller) which occur in the area. Consequently, even though Blackbirds are dominant over both Song Thrushes and Redwings, they are not regarded as specialists in the defence of a winter food supply.

The finding that the total number of fruits taken by intruders is about four times that consumed by the defender has implications for seed dispersal. Our observations showed that the defender excretes most of the seeds consumed underneath the parent plant, and thus fails to disperse them. The seeds of fruits taken by intruders are mostly excreted elsewhere, thus assisting the plant's dispersal.

Acknowledgments

We thank Prof. M. Rothschild, FRS (Ashton Wold, Peterborough) for her kind support. The study was also supported by a scholarship from B'nai B'rith Organization; Grant no. 228.011 from AVI Fellowships; and an S&T grant from the Commission of the European Communities. We are grateful to the late Frank White for his encouragement throughout this investigation and for his comments on the manuscript.

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