

MALTESE RECORDS OF NORTH EAST EUROPEAN BUNTINGS WHICH WINTER IN THE ORIENTAL REGION.

The Little Bunting *Emberiza pusilla*, Rustic Bunting *Emberiza rustica* and Yellow-breasted Bunting *Emberiza aureola* are vagrants to Malta and each has been recorded on less than ten occasions (Sultana et al. 1975).

Autumn occurrences of these species in Malta between 1967 and 1976 were examined in relation to weather data. The published daily weather reports of the British Meteorological Office for three days before each record were examined and the weather situation scored as type A, B, C, etc., following the generally accepted criteria (Meteorological Office 1962). A total of ten records were examined and the pooled results are shown in Table 1. Some weather reports were not available.

Approximately two thirds of the weather reports depicted anticyclones over Scandinavia Eastern or East central Europe (types B, D, and unscored). Only two records were not preceded by weather of one of these types on at least one day. Each of these was associated with a weather type A situation bringing continental arctic air south over Fennoscandia. All records thus occurred after conditions which might have been expected to favour migration south from Fennoscandia. Passive drift alone cannot account for most of these records, and the weather data cannot account for the fact that these birds migrated SSW - SW and not SE - ESE.

The birds in question might have migrated in company with other species which usually migrate between south and southwest. It is significant in this respect that Rustic Buntings have been recorded in the company of Reed Buntings *Emberiza schoeniclus* (Sultana and Gauci 1976). Alternatively, Maltese records might refer to birds which adopted an inappropriate heading independently of other birds.

The only recovery of a Rustic Bunting ringed in Malta is of some interest. A first-year male ringed at Lunzjata, Gozo, on 13th October 1976 was recovered in Rhodes eleven days later (Sultana and Gauci 1977). Rhodes lies approximately 1250 km due east of Gozo and thus lies on a great circle route which would have taken the bird to its winter quarters. Examination of local weather data and weather maps over the period between ringing and recovery showed winds between northwest and south southwest during the period in question, and the possibility of the bird's having drifted downwind cannot be excluded.

The possibility that Palaearctic-oriental migrants utilize the clockwise airflow around the Siberian anticyclone does not appear to have been investigated. This might explain why the species migrates later in autumn and earlier in spring than many palaearctic-african migrants which migrate just as far. The Siberian anticyclone dominates the Eurasian landmass from October to March or April (Riley and Spolton 1974).

It would be idle to draw hard and fast conclusions from a single recovery, especially in view of the alternative explanations. However, the incident does introduce the possibility that immature birds of this species can navigate towards a goal area whose position is known innately. Various authors (e.g. Schmidt Koenig 1970, Wiltzschko 1977) have suggested that birds might navigate towards a goal area, the knowledge of whose coordinates is innate. The potential for navigation studies of species whose migration possesses a pronounced east-west trend has not been fully realised. Displacement in such species might readily be designed to give a change in direction of the great circle route without clock shifting or vice versa.

Table 1							
Weather type	A	B	C	D	E	B/D	Unscored
Number of days	5	2	0	10	3	2	2
%	21	8	0	42	13	8	8

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