The song of the Ortolan Bunting *(Emberiza hortulana)*

Von John Reid (Wien)

"Sweet bird, that shunn'd the noise of folly,
Most musical, most melancholy"

John Milton (1608 to 1674)-Il Penseroso.

It ist improbable that Milton was here referring specifically to the ortolan which, in his days, was better known as a delicacy on the gourmet's table than for its song. His selection of the adjectives "musical" and "melancholy" could scarcely have been more apt, however, had he had the ortolan in mind. When "stretched" for biomusicological examination its song, unlike that of the nightingale, for example, seems to improve in musical quality and it thus came as no surprise to me when, in the course of a talk on bird song illustrated by tape recordings, the lecturer disclosed that a composer friend of his had selected this particular song as the basis of what transpired to be a very pleasing piano fantasia.

I had already become familiar with and learned to love the simple song of this rather shy little bird in the ideal background of the mountains of Jugoslavia at a time when the last snows were melting but before the first flocks of sheep had reached the high pastures. Apart from its minor key, tonal quality and entrancing simplicity, the song is perhaps even more remarkable in the number of variations in which it is presented. I am aware of no other bird song of fewer than ten notes being delivered in anything even approaching such variety while remaining consistently and unmistakably identifiable as being from the same species.

Although, generally speaking, more concerned with the aesthetic than with the scientific aspects of bird life, I became intrigued with this phenomenon and found it a fascinating exercise to note as many of these variations as I could. In the course of five weeks spent at altitudes between 1,500 and 2,500 metres I had listened to the songs of some 320 individual birds. I proceeded to collate these into patterns based upon (a) the final 1 to 3 notes, which unquestionably constitute the "essence" of the song, and (b) the 2 to 6 introductory notes preceding these. This collation yielded a total of 62 patterns, differing from each other in permutations and combinations of (a) and (b).

The basic structure of the song is quite simple, with a close similarity - apart, of course, from the musical content-to the "little bit of bread and no cheeeese" of the yellow-hammer *(Emberiza citrinella),* and consisting of 2 to 6 identical, relatively unmusical, short introductory notes repeated at the same level (tsee-tsee-tsee-tsee-tsee-tsee or teereeree-teereeree etc.) followed by a final prolonged, musical 1 to 3 notes pitched half a tone to one-and-a-half tones lower (Rü or Zree-Zree-Zree etc.). The final notes which, as I have indicated, from the definitive part of the song, are tabulated (tab. 1) accompanied by the appropriate variations in the introductory notes.

All songs heard fell within one or another of these patterns with two very minor

exceptions, in one of which a short note at the same pitch as the introductory notes was repeatedly added to the final note and, in the other, the introduction consisted of "zeeree-zeeree-zee" with the "zee" pitched a little higher than the notes preceding it. Of the 8 songs listened to in Austria, all came within Category A in one or other of the variations shown below.

Tab. 1: Song types of *Emberiza hortulana*

	Final notes (1 to 3)	Introductory notes (2 to 6)	Number of Individuals
A	Rü	zee	6
		a-zee	7
		zree	10
		zeeree	2
		zeerl	7
		tsee	2
		tsa	•1
		teeree	3
		teereeree	3
B	Zree	teeree	14
C	Zee	teeree	4
D	Ra	eez	1
		ree	1
E	Tee	teeree	1
Total			62

In every individual case studied in detail, the bird retained its final note Rü etc., whether single, double or treble, even where there were variations in the number of introductory notes. In one case, for example, the number of introductory notes varied between the absolute maximum of 6 and the absolute minimum of 2 in a song repeated 20 times at intervals of 3 to 14 seconds, while the final single note remained Rü throughout. This constituted the greatest number of variations within any single song. In another, the song was repeated without variation for 25 minutes at intervals of 3 to 10 seconds. Variations within a single song were normally limited to an alternative of 2 or 3 introductory notes. In 47 of the 62 patterns so analysed there were no variations whatsoever in any single song.

The transliterations are in accordance with English usage except in the case of Rü, which I would offer as an French 'R' and a soft, French 'ü'.

It was tempting to wonder if there might be a relationship between the groupings of the songs and the altitude, geographical situation or biotopic surroundings in which they were heard. I was unable to detect any such connection.

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