Breeding Bird Monitoring in France: The ACT Survey

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1. Introduction

The ACT (Alaudidae, Columbidae, Turdidae) monitoring plan is a project of the French National Game and Wildlife Agency (ONCFS, Office National de la Chasse et de la Faune sauvage). Its main objective is to monitor the breeding populations of twelve migratory bird species in France (Boutin *et al*. 2001). These species are: Blackbird *Turdus merula*, Mistle Thrush *Turdus viscivorus*, Fieldfare *Turdus pilaris*, Song Thrush *Turdus philomelos*, Ring Ouzel *Turdus torquatus*, Woodpigeon *Columba palumbus*, Stock Dove *Columba oenas*, Turtle Dove *Streptopelia turtur*, Collared Dove *Streptopelia decaocto*, Skylark *Alauda arvensis*, Woodlark *Lullula arborea* and Quail *Coturnix coturnix*.

2. Method

From an experimental feasibility study that was carried out in 1992 and 1993, a protocol, based on point counts (Blondel *et al.* 1970, Frochot & Roché 1990) was selected and applied at a national scale. Every year, there were 1000 counting routes, each including 5 listening points. No point count could lie closer than 1000 m from any other. Originally, the count duration was 20 minutes (1993 to 1996), but from 1996 onward it was 10 minutes. The shorter duration of 10 minutes was preferred because it was a more efficient use of manpower. 800 observers covered these routes in a network called 'Birds of passage' in collaboration with hunting association teams. These observers are not amateurs but professionals from our technical staff. Each observer makes two visits each year, the first being census between 1st to 30th April and the second between 15th May and 15th June. The basic units of count are singing males, but birds detected by flight are also recorded. It is therefore a simple bird count with no estimation of distance, because the aim of the ACT monitoring plan is to provide an index of relative abundance for each species.

3. Results

The data obtained had been gathered in the first seven years of the ACT plan, from

Tab. 1: Records of the most common species in 2000.

Species	Points	Singing males	Average
Blackbird	4505	8312	1.845
Woodpigeon	4505	4702	1.044
Skylark	4505	3765	0.836
Song Thrush	4505	2190	0.486
Collared Dove	4505	2348	0.521
Turtle Dove	4505	2896	0.421
Mistle Thrush	4505	1214	0.269
Quail	4505	304	0.067

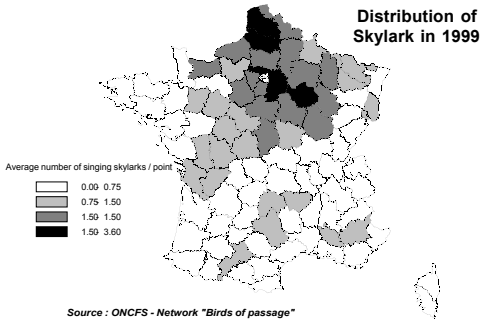

Fig. 1. Distribution and abundance of the Skylark Alauda arvensis in spring 1999.

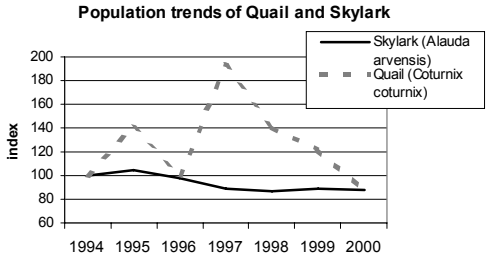

Fig. 2. Trends in Quail and Skylark in France.

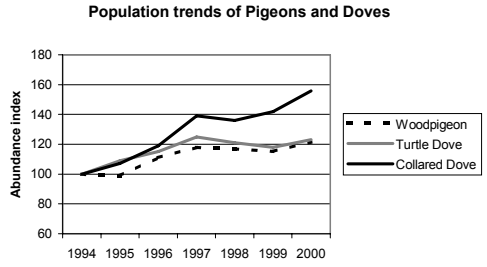

Fig. 3. Trends in Columbidae in France.

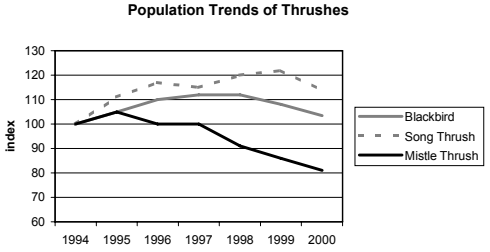

Fig. 4. Trends in Turdidae in France.

1994 to 2000. The average number of singing birds per point is considered to be the best indicator of abundance during the breeding period. These data, analysed at the *departemental* or regional scale, reveal the areas in France that are important to these species.

The data in Figs 3-4 provide the population trends for eight common species in the 1994 to 2000 study period, on the basis of a theoretical index of 100 in 1994. For the other species the field data are too scarce to allow powerful analyses.

4. Conclusions

Two species are decreasing; the Skylark whose national abundance index has gone down from 100 to 88, and the Mistle Thrush. The Columbidae trends are increasing (Boutin 1998) and above all, that of the Collared Dove. The Blackbird and the Song Thrush have shown an increase early in the monitoring period and a subsequent period of stability or slight decrease. The fluctuations of Quail are pronounced. In a second step, the data will be linked to habitat types for an in-depth study of the reasons and to provide propositions for management actions (Eraud & Boutin 2001). Because the covariables are used for the geographical scales and habitat types, we will use Trim software (ter Braak *et al.* 1992, Pannekoek & van Strien 1998) to analyse the data.

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