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Distribution and status of the Ethiopian population of the Chough *Pyrrhocorax pyrrhocorax baileyi*

by Anne Delestrade

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The Chough *Pyrrhocorax pyrrhocorax* has a wide distribution, from the Palearctic to the Afrotropics. However, this distribution is highly fragmented, with numerous small isolated populations, such as in Scotland, Wales, the Canary Islands, several Mediterranean islands, Algeria and Ethiopia (see, e.g., Cramp & Perrins 1994). It inhabits mountain areas in the main part of its range, with only the western populations living on sea cliffs and inshore islands. The Chough population in Europe is currently declining (Monaghan 1988, Cramp & Perrins 1994, Tucker & Heath 1994, Madge & Burn 1995), but the status of Chough populations outside Europe has never been accurately assessed.

The Ethiopian population is of particular interest because it is the southernmost (the Bale mountains are some 850 km north of the equator), and the only population living within the Afroalpine ecosystem. This population is currently completely isolated from the others, and has been classified as a distinct subspecies, *P. p. baileyi* (Rand & Vaurie 1955). There are very limited data from Ethiopia (Brown 1967, Cramp & Perrins 1994), and the precise distribution and the size of the population are currently unknown.

Methods

The field study was carried out in Ethiopia between 16 November 1996 and 18 January 1997, i.e. the dry season and harvesting time. During this season, Choughs are not breeding (pers. obs.), and thus gather in large flocks (see Blanco *et al.* 1993). Flocks at roosting or at foraging

endemic subspecies, the Ethiopian population is the most isolated one, the nearest other population being in southern Iran (Desfayes & Praz 1978), about 3,000 km distant. Calls of the Ethiopian birds were found to differ substantially from Choughs living in the Alps (pers. obs.); a detailed analysis of recording will be published elsewhere. Even within Ethiopia, Choughs may be divided into three sub-populations, each composed of several hundred individuals, two in the north in the West Highlands (Simien and Welo Mountains), and one in the South-East Highlands (Bale Mountains). The two northern populations are separated by 200 km of unsuitable habitat, and the Bale population is 600 km distant from the nearest northern population. Chough density was higher in the Simien Mountains National Park than in the Bale Mountains National Park (1.9–2.8 birds/km² versus 0.1–0.2 birds/km² respectively), probably as a consequence of a greater availability of nest and roost sites in cliffs in the Simien Mountains. Obviously more data are needed to assess the presence of Choughs in other massifs (e.g. Amba Farit in Welo region). With a total population of about 1,000 birds, and given the complete isolation from other populations, as well as the highly fragmented distribution within Ethiopia, it is very likely that exchanges of individuals between sub-populations are few (if they occur at all) as Choughs are known to be highly sedentary, and thus the status of this Ethiopian population appears to be vulnerable if not threatened.

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Figure 1. Distribution of the Chough in Ethiopia.

sites were censused by visiting most suitable high-altitude massifs: Mt Choke (Gojam region, 4,052 m), Mt Guna (Gondar, 4,135 m), Dilanta highlands (Welo, 3,601 m), Mt Abune Yosef (Welo, 4,284 m), Simien Mountains (Gondar, Mt Ras Deshen 4,533 m), and Bale Mountains (Bale, Mt Tullu Deemtu 4,377 m) (Fig. 1). Estimates of population size were derived from observations of flock size, flock movements, and identification of areas used by each flock. Roosts were recorded by observations of flock movements on cliffs just before sunset. I spent 14 days (7–20 December 1996) in the Simien Mountain National Park and 20 days (27 December 1996–15 January 1997) in the Bale Mountain National Park in order to obtain exhaustive censuses in these two areas.

Results

Distribution

During this study, the presence of Choughs was recorded in four difference massifs: Bale Mountains and Simien Mountains, where they were already known (Brown 1967, Urban & Brown 1971); The Dilanta highlands, from where there had been an early report by Blanford (1870); and a new area, the massif of Mt Abune Yosef in the Welo region. Choughs were not observed at Mt Choke (Gojam region) nor at Mt Guna (Gondar), and farmers from these areas were not familiar with the species, which suggests that Choughs are absent from these mountains.

In view of the apparently suitable habitat, Choughs could be present in the Amba Farit Mountains (Welo region, 4,247 m, Fig. 1) but a search could not be arranged there. In the northern part of the Bale mountains, Choughs were reported by local people near Agarfa (Fig. 1), but their presence was not confirmed in this study.

Flock and population size

Three roosts in the Simien Mountain National Park were frequented respectively by 80, 150 and 170 individuals. One roost located in the Abune Yosef massif (near Lalibela, Fig. 1) was visited by 25 individuals. Lastly, in the Bale Mountain National Park, large flocks gathered from different sites at dusk in one area of the Harena escarpment (Rafu area), and were estimated at more than 100 individuals, although the precise location of the roost could not be identified. For all areas combined, the average foraging flock size was 60 (range 9–150, s.d. 35.5, $n=26$).

Population sizes could be estimated precisely only for the Simien and Bale Mountains National Parks, where careful counts were made. Based on flock locations and sizes, the Simien Mountain National Park (179 km²) population was estimated at 350–500 birds, while the population of the Bale Mountain National Park (2,471 km², but with the Harena forest excluded only some 1,700 km² suitable) was estimated at 250–400 birds. Thus, the total population of Choughs in Ethiopia living within the Parks was between 600 and 900 birds.

The minimum size of the Ethiopian Chough population based on the present counts would be in the order of 675–975 birds. As all areas outside the Simien and Bale Mountain National Parks, known to be inhabited by Choughs, were not checked in this survey, a total of 1,000–1,300 birds in Ethiopia is possibly a more likely figure. One is obliged to wonder how these isolated populations survive at very low densities, and what controlling factors are involved.

Habitat

In Ethiopia, Choughs live in high mountains. During this study, the 26 foraging flocks observed were in open habitats between 2,800 and 4,200 m. Five roost sites were found in cliffs, between 3,000 and 3,900 m. Although outside the breeding season, many pairs were visiting nest-sites, all in cliffs between 3,000 and 4,300 m. Foraging Choughs were noted in the following habitats: grazing areas, field crops (mainly barley and wheat), afroalpine belt, escarpments and cliffs. During harvesting of the cereal crops, Choughs fed on the seeds left on the ground. Overall therefore, Choughs depended mainly on grassland areas and field crops for foraging, and on cliffs for roosting and breeding.

Discussion

This study has provided distributional data and an estimate of population size for the Chough in Ethiopia, a first step toward the analysis of long-term trends in this population. Recognised as an

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On the existence of a melanistic morph of the Long-tailed Hawk *Urotriorchis macrourus*

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The Long-tailed Hawk *Urotriorchis macrourus* (Hartlaub, 1855) is a little recorded raptor occurring in the Upper and Lower Guinea forest blocks of tropical Africa. New information concerning its distribution has come to light since the publication of *The Birds of Africa* (Brown *et al.* 1982) and its range is now known to extend from eastern Sierra Leone (Gola forest), Liberia and southeastern Guinea (Ziama forest) through Ivory Coast and Ghana to western Togo, and from western Nigeria and Cameroon southwards to Equatorial Guinea, Gabon, Congo, Cabinda and former Zaïre, and eastwards to southwestern Central African Republic, just reaching the extreme south of Sudan and Bwamba in western Uganda (Allport *et al.* 1989, Britton 1980, Brown *et al.* 1982, Carroll 1988, Cheke & Walsh 1996, Dowsett-Lemaire & Dowsett 1989, Elgood *et al.* 1994, Halleux 1994, Hillman & Hillman 1986).

The species is monotypic; the formerly recognised race *batesi*, supposed to have a longer tail, and proposed for populations from Cameroon eastwards (Bates 1930, Dekeyser & Derivot 1966, Mackworth-Praed & Grant 1970) is now considered invalid (Brown *et al.* 1982, Kemp 1994).

The purpose of this note is to draw attention to some conflict or inconsistency that exists in the literature concerning the colouration of this species, which emphasises how poorly known it is.

The general colouration of the adult is entirely dark grey on the upperparts with contrasting white uppertail-coverts; the exceptionally long, graduated tail is black tipped and barred white. Below, it is paler grey on the throat, with the remainder of the underparts and the underwing-coverts, typically, a rich chestnut brown; undertail-coverts are white. This much is non-controversial. There is, however, dispute over the existence of the so-called melanistic morph of this species in which the chestnut is replaced by a dark slaty grey.

The melanistic morph was first described by Sharpe (1870) from a specimen, sex unspecified, secured for the Norwich Museum, which