

Short communications - Brevi note

Trends at a roost of Short-toed Eagles *Circaetus gallicus* over ten years

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Riassunto – *Andamento decennale di un dormitorio di biancone* *Circaetus gallicus*. Le osservazioni sono state svolte dal 2000 al 2009, in una piccola valle situata in provincia di Bologna (Emilia-Romagna), durante sedici visite effettuate nel periodo dal 24 giugno al 3 agosto. Il dormitorio era composto inizialmente da due bianconi, che sono aumentati fino ad un massimo di dodici nel 2004 e alla fine del periodo monitorato sono scesi a tre individui, con un minimo di uno nel 2008. Nei dieci anni in totale sono stati rilevati 51 individui di biancone, dei quali la maggior parte (69%) composta di immaturi. La presenza nell'area di immaturi e di adulti non nidificanti, entrambi non territoriali, era molto probabilmente la causa dell'inusuale concentrazione di individui osservati. Escludendo i periodi di migrazione, le osservazioni di dormitori di biancone sono molto rare e apparentemente di natura occasionale, come suggerito dall'unico altro caso noto, rilevato in Israele, dove il raggruppamento è stato attribuito ad una eccezionale abbondanza di cibo (roditori) nell'area.

The Short-toed Eagle *Circaetus gallicus* is not highly gregarious on its breeding and wintering grounds or during migration (Cramp and Simmons 1980). The species is strongly territorial during the breeding season, although it is usually not highly aggressive towards intruding conspecifics or other raptors and can be tolerant of them, sometimes even close to the nest (Cramp and Simmons 1980, Cattaneo and Petretti 1992).

During migration, Short-toed Eagles have been observed roosting at the Strait of Gibraltar (small groups: Finlayson 1992, max 139 ind.: Muñoz *et al.* 2010) and on the Apuane Alps (Tuscany, Italy) (max 37 ind.: Premuda 2007).

Before the observations made at the study site in Italy (Premuda 2004), roosting of Short-toed Eagle outside of migration periods was not yet known (Cramp and Simmons 1980).

Observations took place from 2000 to 2009, at a small valley in the pre-Apennine hills (max 600 m a.s.l.) of Bologna province (Emilia-Romagna, Northern Italy), in the course of sixteen visits between 24 June to 3 August. The area is characterized by open land, dry meadows with sparse *Juniperus communis* bushes and small *Quercus pubescens* woodlots. Observations of birds arriving at the roost were made late in the afternoon (from about 17:30 to 20:00), while birds leaving the roost were observed early in the morning (from about 07:30 to 10:30). The observations were made with binoculars and telescopes.

Ageing observed birds was made following Cramp and Simmons (1980), Clark (1999), Forsman (1999), Ferguson-Lees and Christie (2001), Hayman and Hume (2002), Premuda (2004) and, only partially, Campora (2002), Campora and Cattaneo (2005). According to Forsman (1999), second and third calendar year birds are considered immatures while older birds, including those in their fourth calendar year, are considered adults.

The roost was initially composed of two birds, eventually increasing to a maximum of twelve in 2004 and finally decreasing to three individuals in 2009, with a minimum of one individual in 2008 (Fig. 1). In total 51 observations of Short-toed Eagles were recorded over ten years (maximum daily numbers), of which most were immatures (69%; between 50% and 100% of the individuals observed each day) (Tab. 1, Fig. 1). Among the immature birds that could be precisely aged (46%), seven (20%) were in their second calendar year, and nine (26%) in their third calendar year. The earliest time of arrival at the roost in the afternoon was 17:30 and the latest 19:52, while the earliest and latest times of departure in the morning were 08:00 and 10:07 respectively. The Short-toed Eagles roosted at scattered locations in the small valley, from very close to each other (two birds on the same tree) to quite distant (about 200 m); on average, birds roosted approximately 50 m from one

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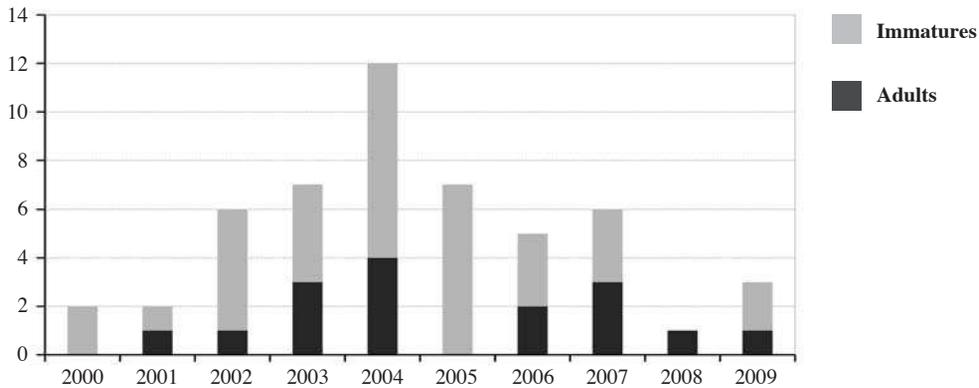


Figure 1. Trends at the roost of Short-toed Eagle *Circaetus gallicus* during the study period – *Andamento del dormitorio di biancone Circaetus gallicus durante il periodo studiato.*

Table 1. Presence per age groups of Short-toed Eagles *Circaetus gallicus* observed at the roost during the study period – *Presenza per classi di età dei bianconi Circaetus gallicus osservati al dormitorio durante il periodo studiato.*

Years	Adults	Immatures	Max no.
2000	-	2	2
2001	1	1	2
2002	1	5	6
2003	3	4	7
2004	4	8	12
2005	-	7	7
2006	2	3	5
2007	3	3	6
2008	1	-	1
2009	1	2	3
Total	16 31%	35 69%	51 100%

another, usually perching in trees, although birds occasionally perched on rocks on the ground.

The adult Short-toed Eagles observed were very likely all non-breeders, because during the observation period (July), breeding adults should be territorial and should roost close to the nest. In addition, no juveniles (first calendar year) were observed at the site.

Very probably, the presence in the area of non-territorial immatures and non-breeding adults was the cause of the unusual aggregation of individuals observed.

To date, excluding migration periods, records of Short-toed Eagle roosts are very rare. Another case of roosting has been recorded in Israel (involving about 100 birds), where the aggregation was related to food availability and caused by a particular concentration of rodents (S. Daraw-

shi pers. com.). On the contrary, the roost described in this study seems not related to high food availability in the area, because Short-toed Eagles were never seen hunting in groups (like in Israel) and were only observed at the roost, arriving from or departing towards different directions.

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