

AUTUMN MIGRATION OF BEE-EATERS, *MEROPS APIASTER*, AT THE STRAITS OF MESSINA

RIASSUNTO – *Migrazione autunnale dei gruccioni, Merops apiaster, sullo Stretto di Messina.*

Sono stati censiti 1960 individui migranti in 69 gruppi tra il 24 agosto e il 10 settembre 2004. Il picco della migrazione è stato osservato nei primi giorni di settembre.

The Bee-eater, *Merops apiaster*, is a summer resident in its European breeding range and, after the breeding season, birds move towards the wintering grounds situated in Africa mainly south of the Equator; family parties begin concentrating in the second half of July (CRAMP, 1985). Although bee-eaters cross the Mediterranean on a broad front, they tend to follow topographic features such as peninsulas and coasts (FRY, 1984). In autumn, tens of thousands are observed at the Straits of Gibraltar, with 90% of migrants during the first half of September (LOPEZ GORDO, 1975; TELLERIA, 1979; FINALYSON, 1992). In the Central Mediterranean area, systematic observations during autumn are lacking, despite large flocks being recorded over the island of Malta and at other watch points (SULTANA & GAUCI, 1982; ZALLES & BILDSTEIN, 2000).

The aim of the present study was to provide data on the visible autumn migration of this species in the Central Mediterranean through observations at the Straits of Messina, already known as an important bottle-neck for other migrating birds such as raptors and storks (ZALLES & BILDSTEIN, 2000; AGOSTINI, 2002).

Study area and methods

We used a watch point on the western slope of the Aspromonte mountain, not very far from the sea (almost always visible), situated at an approximate altitude of 1100 m. Observations were made between the 24th August and 10th September 2004, from 8:00 (solar time) until dusk for a total of 180 hours, with the aid of binoculars and telescope. We divided the study period into six three-day periods. Each day was further divided into three different periods: morning (8:00 - 11:19), midday (11:20 - 14:39) and afternoon (15:40 - 18:00).

Results and discussion

A total of 1960 bee-eaters were counted in 69 flocks, with no single birds being observed. The largest flock comprised 78 individuals.

Flocks were usually detected first thanks to calls: in fact, migrants were often observed either very high or close to the ground hunting in loose flocks.

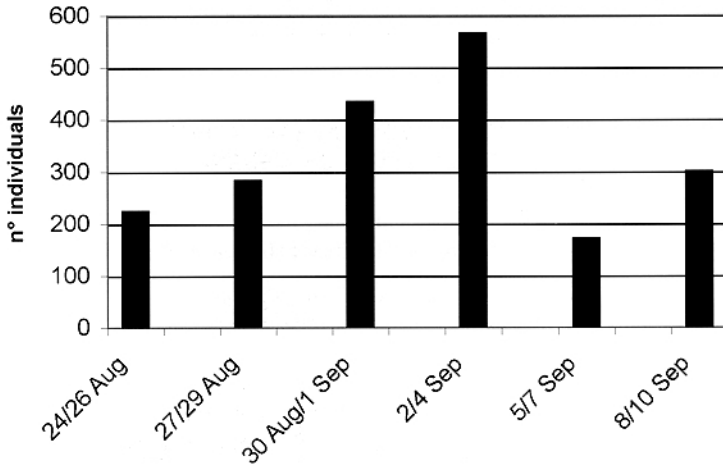


Fig. 1 -Variations in the migratory flow.

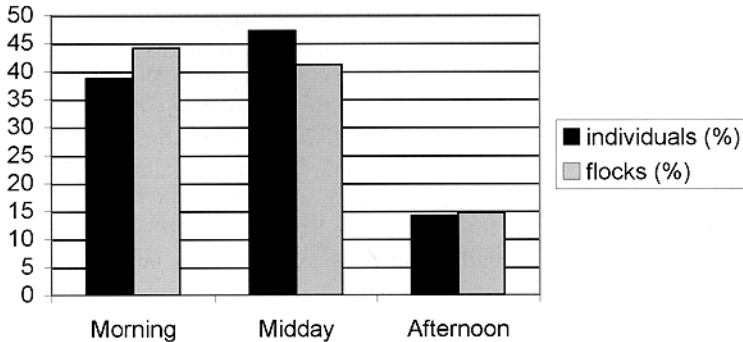


Fig. 2 - Variation in the migratory flow during the day.

For this reason, in 12 cases it was impossible to observe all the birds in the flock as they were hidden by vegetation and/or ground. Moreover in 17 further cases it was completely impossible to locate a flock that had been heard.

In the case of flocks observed as a whole, it is interesting to note that the mean flock size recorded in our study, $31,6 \pm 2,03$, was very similar to that reported at the Straits of Gibraltar in the same period (33,5; TELLERIA, 1979) but completely different from that previously observed during spring migration at the island of Ustica when a mean of just 17,4 was observed (AGOSTINI & PANUCCIO, 2002); this difference probably reflects the presence of juveniles.

Most flocks were migrating S-SW, but in seven cases, for a total of 176 individuals, we observed flocks disappearing N. In coastal areas, birds are regularly seen flying in the opposite direction to migration; however, these movements

seem to be linked to the need to find suitable stop-over sites inland before continuing migration and are not the result of a true migratory movement (ALERSTAM, 1978; BERTHOLD, 2000).

The timing of migration (Fig. 1) shows that passage concentrated at the beginning of September. However, unlike reports for spring migration, the daily peak was not so evident. In fact, in the sample of localized flocks migrating north, the peak occurred on the 3rd September when 233 individuals and 7 flocks passed (13,13%; 11,47%). By contrast, in spring on the island of Ustica, a more evident peak was reported, with 35% of the flocks and 39,6 % of the individuals (AGOSTINI & PANUCCIO, 2002) in only one day.

Finally, considering the variation in migration throughout the day, bee-eaters migrate mostly in the first two periods of the day, with a lower percentage being observed in the afternoon both for individuals and flocks ($2 = 353,6$; d.f. = 2; $P < 0,001$; $= 11,04$; d.f. = 2; $P < 0,01$).

It is interesting to compare our data with those collected during autumn 2005 at the northern slopes of the Serre chain mountain (Mount Covello); this area is located 100 km north from our watchpoint (Panuccio, Mellone, Agostini, Wilson, Lucia, Ashton-Booth, pers. obs.). Here observations were carried out in the same period of 2004, from three different points used at the same time. A total of 1788 individuals and 83 flocks were counted, peaked at the end of August. Unfortunately at this site it was impossible to make a realistic count as well as flock analyses because birds passed frequently undetected; in fact at least 37 flocks heard were not observed. Further many flocks passed hunting along the valleys and the fly direction randomly changed. However it was possible to age 50 migrating birds and to observe flocks containing juveniles and adults together and flocks containing only juveniles or only adults (Panuccio, Mellone, Agostini, Wilson, Lucia, Ashton-Booth, pers. obs.).

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NOTE SUL PAPPAGALLO MONACO, *MYIOPSITTA MONACHUS*, A ROMA (VILLA PAMPHILI)

ABSTRACT - *Observations on Monk Parakeet, Myiopsitta monachus, in Rome (Villa Pamphili urban park).*

Il pappagallo monaco, *Myiopsitta monachus*, è specie neotropicale, euriecia, distribuita nell'areale primario in zone forestali e a mosaico agricolo-forestale, caratterizzate da un certo grado di aridità, ma anche in aree più aperte e/o sub-urbane (SNOW & PERRINS, 1998). In Italia è presente come naturalizzata (*sensu* ZAPPAROLI, 2006) in alcune città in seguito a introduzioni volontarie o involontarie avvenute soprattutto a partire dagli anni '70 (ANDREOTTI *et alii*, 2001; SCALERA, 2001), anche se esistono alcune osservazioni già dagli anni '30 (Milano; MOLTONI, 1945).

Dagli anni '90 nel Lazio sono note alcune colonie nidificanti lungo il litorale romano (Ostia Antica - Castel Fusano; BIONDI *et alii*, 1995; BIONDI & PIETRELLI, 2005) e, internamente a Roma, sono noti due nuclei principali: uno nella zona dell'Appio-Latino (Caffarella, Tor Marancia, Appia Antica; nidificante con alcune decine di individui; CIGNINI *et alii*, 1996; TAFFON *et alii*, 2008), un altro nel settore centro-occidentale della città (Villa Pamphili e quartiere Aurelio; BRUNELLI & SORACE, 1999; PITZALIS *et alii*, 2005).

I dati sull'ecologia di questa specie nel nostro Paese sono ancora scarsi. A tal fine si riportano alcune note (status, preferenze alimentari, relazioni interspecifiche) relative alla colonia presente presso il parco urbano di Villa Pamphili (Roma, Italia centrale), sintopica con *Psittacula krameri*, per la quale esistono evidenze già dalla seconda metà degli anni '90 (A. Zocchi, non pubbl.).