

## OBSERVATIONS ON ELEONORA'S FALCON *FALCO ELEONORAE* IN SICILY AND SURROUNDING ISLETS

Despite many studies, of varying intensity, of Eleonora's Falcon *Falco eleonorae* (see references listed) the biology of this singular species is only partially known. I report below observations from the Sicilian region.

### OBSERVATIONS AT LAMPEDUSA

During two excursions to Lampedusa, Pelagian Islands, Sicilian Channel, 12° 34' E, 35° 31' N, of a week each, in the first half of June 1975 and the first half of May 1976, made together with G. Cangialosi, A. Carapezza and G. Cusimano, I observed that Eleonora's Falcon was not closely tied to the cliffs of the northern coast of the island, as happens during nesting according to observations made by Moltoni (1970) and Carapezza (September 1975, pers. comm.), but preferred to seek its prey in the characteristic sparsely vegetated gullies (called *wadi*, pl. *widyan*, by geologists) of the southern coast, and in the open areas of the large unvegetated plateau.

On such places I often observed several birds, 100–150 m from one another, hovering in the air at a height of about 50–80 m, in the manner of the Kestrel *Falco tinnunculus*. From time to time one of them would swoop to the ground with its wings half-closed. Without landing, it would then rise again and return to the original height with zig-zag flights forming a tight semicircle (Fig. 1).

Both from direct observations, made with two different binoculars (8×30 and 16×50), and from the examination of the content of the stomachs of birds caught there and submitted to me, I was able to establish that one of the favourite preys of Eleonora's Falcon at Lampedusa in May and June is the *Pamphagus ortolanii*, a large orthopteran which is slow in its movements and incapable of flight, since its wings are reduced to two small scales. This insect is very common on the island in the spring months when, sexual maturity having been reached, mating and egg-laying begin (Cusimano & Massa 1976).

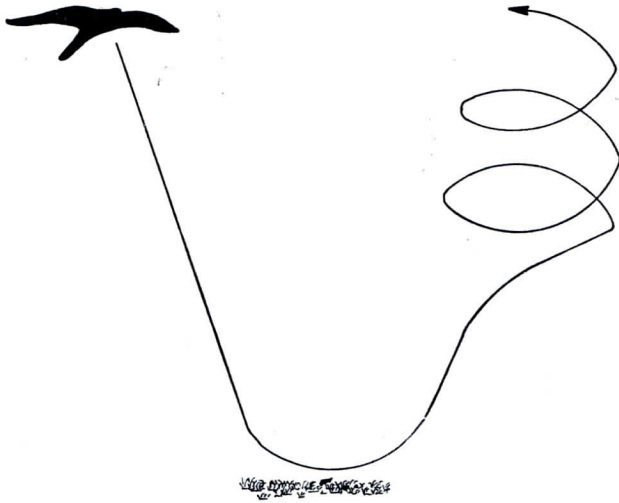


FIGURE 1. Characteristic flight path of Eleonora's Falcon catching *Pamphagus ortolanii*, observed at Lampedusa, 12 June 1975.

However, as these Orthoptera do not aestivate, from the end of July the Eleonora's Falcons, still insect-eating because of the absence of migrating birds, can feed on other insects widespread in Lampedusa, such as grasshoppers of the genera *Calliptamus*, *Doclostaurus*, *Oedaleus*, *Anacridium*, etc., and on the big beetle (Coleoptera, Buprestidae) *Iulodis onopordi lampedusanus*, as happens in other Mediterranean localities (see Walter 1968, and Vaughan 1961). A few thermophil species of insects are very common at Lampedusa, as the Piacenza entomologist F. Tagliaferri has observed (pers. comm.). I conclude that not only winged species of insects but also those incapable of flying may be the basic prey of Eleonora's Falcon in the spring-summer period.

#### OBSERVATIONS AT SALINA, FILICUDI AND ALICUDI

From personal observations made in Autumn (October 1976 and 1977) on the islands of Salina, Filicudi and Alicudi, Aeolian Islands, Tirrenian Sea, 2° 25' E, 38° 30' N, it appears that Eleonora's Falcons, in addition to eating small passerines and other species of birds (e.g., Golden Orioles *Oriolus oriolus* or Hoopoes *Upupa epops*), feeds on very small winged insects such as ants (Hymenoptera, Formicidae) during their nuptial flights at dusk. These observations were confirmed by the study of 35 pellets collected near nests.

The colonies on these islands consisted of 20, 35 and 28 pairs, respectively. The existence of a colony on Salina had not previously been recorded.

#### BRIEF OBSERVATIONS ON THE MIGRATION OF ELEONORA'S FALCON

In Sicily, Eleonora's Falcon breeds in the Aeolian Islands (Moltoni & Frugis 1967) and the Pelagian Islands (Moltoni 1970), while is suspected but has not been proven to breed also in Pantelleria (Moltoni 1973).

It seems to me that the total of Sicilian pairs does not exceed 150. The first birds are seen in Sicily in late spring, but some have been seen from the month of March on. I know of 27 caught on Sicily during the spring, summer and autumn months. The study of birds caught in August and September allowed me to establish that they were immatures from the previous year, not capable of reproduction, and therefore to be considered erratic. In spring (May-June) the Peloritan Mounts (Messina) certainly represent

an important migration route taken by Eleonora's Falcons which probably make their way towards the Aeolian Islands and the Sardinia-Corsica area. These are perhaps the birds which fly over Malta (Sultana, Gauci & Beaman 1975) and along the eastern coast of Sicily (Baglieri & Priolo, pers. comm.). The Pelagian Islands birds do not seem to touch Sicily during migration, while those seen at Pantelleria both in late spring (Moltoni 1973) and in autumn (one caught in November 1976) may be part of western Mediterranean populations. The birds observed or caught in autumn (October-November) in Sicily (main island) could belong to the same populations or to others of the Sardinia-Corsica area.

### RIASSUNTO

#### Osservazioni sul Falco della regina *Falco eleonora* in Sicilia ed isole circostanti.

A Lampedusa (Is Pelagie, Canale di Sicilia) in maggio e giugno la dieta del Falco della regina è costituita principalmente da *Pamphagus ortolanii* (Insecta, Orthoptera). Questa specie è presumibilmente rimpiazzata da altri grossi insetti per un breve periodo estivo fino all'inizio della migrazione autunnale dei Passeriformi, prede fondamentali, ma non uniche, del *Falco eleonora* nel periodo della cova. Alle Isole Salina, Filicudi e Alicudi (Is Eolie, Mar Tirreno) nel periodo autunnale (ottobre) la dieta del Falco della regina è costituita anche di piccoli insetti alati (Hymenoptera, Formicidae). Il totale delle coppie nidificanti nelle isole circum-siciliane è di circa 150 (Is Eolie, Is Pelagie e probabilmente Pantelleria). Gli esemplari catturati in agosto e settembre in Sicilia sono risultati immaturi.

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