FIRST DATA ON MIGRATION OF RAPTORS AT THE PELAGIE ISLANDS, SICILIAN CHANNEL

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During migration seasons, the Pelagie islands (Sicily, AG) are among the most important stop-over sites for birds in the Mediterranean basin, especially passerines, although they remain poorly surveyed (Moltoni 1970, Corti et al., 2002). Apart from brief mentions in Corso (2005), nothing has yet been published on raptor migration there. The main goals of our study were: i) to verify assumptions reported by many authors that the southern Sicilian Channel its generally avoided by soaring species; ii) to verify which species can undertake this long sea-crossing and to what extent. Observations were made in 1997, 2004-2008, with 19 visits for a total of 200 days and almost 2,000h. The most extensive survey took place in spring 2006, as part of the LIPU project "Rapaci Migratori (Gustin, 2006), while observations were more sporadic during the other visits. The observations were made starting at 6.30-7.00 am (solar) until 6.30-7.00 pm using 10x binoculars 10x and 20-60x telescopes. On Lampedusa, the main observation post was located near Albero Sole; most observations from late evening to sunset were made at Cala Pulcino, where the small pine plantation hosts the island's main raptor roost. On Linosa, the main observation post was at Monte Bandiera, while at sunset we counted harriers at their evening roosts in the Mannarazza area. We recorded a total of 3,593 raptors (mostly in autumn) of 19 species. The most abundant were Marsh Harrier (1967), Honey Buzzard (531), Kestrel (349) and Red-footed Falcon (157). The regular passage of good numbers of Pallid Harrier (83) and Lesser Kestrel (143) is particularly noteworthy. In Table 1, spring raptors at Pelagie during March-May 2006-2008.

Marsh Harrier. A total of 1967 birds were counted, of which 1557 in autumn and 410 in spring 2006-2008 (Tab. 1).

We aged 1374 individuals in fall: 279 were adults (20%), 868 juveniles (63%) and the remaining 227 were immatures in their 2nd and 3rd calendar year. Among adults, males were commoner than females (60%). In spring most birds observed were adults, 70% of which were males. On Malta, up to 200 Marsh Harriers have roosted at Buskett in recent years (Sammut 2005), while up to 299 have been counted on a single night on Lampedusa being then one of the most important roosting areas for the species during migration in the Western Palearctic.

Montagu's Harrier. A total of 140 were counted in spring 2006-2008 (Tab. 1) and

	2006	2007	2008	Total
Circus aeruginosus	200	120	90	410
Circus pygargus	40	60	40	140
Circus macrourus	20	28	19	67
Circus pyg /mac.	10	12	13	35
Falco vespertinus	70	35	15	120
Falco subbuteo	20	19	34	73
Falco naumanni	35	27	22	84
Falco tinnunculus	80+	40	30	150
Falco peregrinus calidus	8	4	6	18
Pernis apivorus	90	38	21	149
Pendio haliaetus	4	5	4	13
Buteo rufinus cirtensis	1	0	0	1
Ciconia ciconia	1	0	0	1
Cicoria nigra	1	0	0	1
Tot. raptors	578	388	294	1260

Tab. 1. Migrating raptors recorded in spring at Pelagie (Agrigento, Sicilian Channel) during March-May 2006-2008.

an annual average of 46.6 per autumn. In spring, most birds are adults, mainly males, but several 2^{nd} cy are also observed.

Pallid Harrier. During, spring we counted an average of 22.3 per year (06-08) (range 19-28)(Tab. 1); this site appear to be quite important for this rare species (Corso & Cardelli, 2004). In agreement with Gustin & Pizzari (1998) and Corso & Cardelli (2004) a sex-related differential migration pattern was noted, with almost 90% of the birds observed in March and early April being adult males, and more females later in April-May, *contra* Panuccio & Agostini (2006).

Honey Buzzard. A total of 149 were counted in spring 2006-2008 (Tab. 1). Slightly more common during autumn with an average of 63.3 compared to 496 during spring, with a record of 127 between 29/08 and 8/10/1997. As reported by Agostini (2004) and Agostini et al. (2002, 2004), the vast majority of birds are inexperienced juveniles undertaking a major sea crossing.

Red Kite. 1 juvenile was observed on 23rd September 2007. This is the 1st record for the Pelagie islands (Corti et al., 2002; oss.pers.), and one of the few for the Sicilian Channel.

Peregrine Falcon. 18 and 6 birds identified as belonging to the distinctive long-distance migratory race *calidus* were recorded respectively in spring and autumn. This confirms the regular occurrence of this race in Italy as reported by Corso (2001a, 2005).

Lesser Kestrel. Was also recorded in good number, respectively spring and fall: 59-84 (Tab. 1), so these islands are one of the most important migration sites in Ita-

ly (Corso, 2001b, 2005). As expected, soaring birds tend to avoid long-sea crossing and are recorded in low numbers on the Pelagie islands, while Circus sp. and *Falco* sp., capable of sustained flapping flight, account for the highest number of birds observed.

Riassunto

Primi dati sulla migrazione dei rapaci nelle isole Pelagie (Agrigento, Canale di Sicilia)

Vengono forniti i dati relativi ad osservazioni occasionali effettuate durante le regolari visite alle isole Pelagie nell'ambito di vari studi commissionati dalla LIPU e del gruppo GROIS. Tra il 1997 e il 2009 sono stati effettuati sei rilevamenti autunnali e tre primaverili: complessivamente sono stati osservati 3593 (principalmente in autunno), di 19 specie, la più comune delle quali è risultatata il Falco di palude con 1967 individui, quindi il Falco pecchiaolo (531), il Gheppio (349) e il Falco cuculo (157). Di particolare interesse il passaggio regolare di Albanella pallida (83) e Grillaio (143).

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