## BREVI NOTE

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## CIRCULAR MIGRATION OF ADULT HONEY BUZZARDS, PERNIS APIVORUS, CROSSING THE CENTRAL MEDITERRANEAN?

RIASSUNTO – Migrazione circolare dei falchi pecchiaioli adulti che attraversano il Mediterraneo centrale?

During spring migration across the central Mediterranean, Honey Buzzards use mainly two routes: 20,000-30,000 individuals, after the crossing of the sea between Tunisia and western Sicily, turn east concentrating at the Straits of Messina (Corso, 2001), while at least 500 pairs choose a more direct route to reach the Italian peninsula, undertaking a crossing of about 350 km between western Sicily and central Italy and concentrating over the island of Ustica (AGOSTINI, 2002). Each autumn at least 500-700 pairs cross the central Mediterranean to reach wintering areas peaking between the end of August to the beginning of September (Agostini et alii, 2000). The enormous difference in counts made in this area during spring and autumn suggests that mostly Honey Buzzards breeding in central Italy cross the central Mediterranean during the post-reproductive migration (AGOSTINI & LOGOZZO, 1995); because of the geographical characteristic of the peninsula for these birds it is an obligatory route. In this period they tend to follow the Italian peninsula and northern Sicily crossing the sea at its narrowest point and concentrating over the island of Marettimo (Agostini & Logozzo, 1997; Agostini et alii, 2000). During autumn, a migratory flow of adult Honey Buzzards over Ustica is not existent: during observations made between 26 August and 6 September 2001 at this site not a single bird was recorded, while between 26 August and 2 September of the same year, 895 individuals were counted over Marettimo (pers. obs.). The Honey Buzzard has high aspect ratio (long wings) and for this feature it is suited to cross large water bodies (KERLINGER, 1989). However this species, during migration, tends to use mostly soaring flight over land crossing the Mediterranean basin at its narrowest points: the Straits of Gibraltar, the Channel of Sicily and the Bosphorus (CRAMP & SIMMONS, 1980). Why do hundreds of adult Honey Buzzards undertake the long crossing of the Tyrrhenian Sea via Ustica during spring? Why do they

not use this route during autumn? The notable correspondence between the size of population breeding in central Italy (Gensbøl, 1992) and counts made in spring over Ustica (Agostini, 2002) and during autumn in southern continental Italy and over Marettimo (Agostini & Logozzo 1997, Agostini et alii, 2000) would suggest a circular migration of adult Honey Buzzards belonging to that population (Fig. 1). Perhaps, because birds crossing the sea via Ustica minimize time but not energy, Honey Buzzards breeding in central Italy, strongly motivated by reproduction, could choose this route during spring to reach earlier their breeding areas being at the end of their migration.



Fig.1 - Study area (CB = Cap Bon; M = Marettimo; SM = Straits of Messina; U = Ustica; in grey the breeding area of the Honey Buzzard in central Italy).

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  - NICOLANTONIO AGOSTINI (\*), DANIELA LOGOZZO (\*), MICHELE PANUCCIO (\*\*) & GUIDO PREMUDA (\*\*\*)
  - (\*) Via Carlo Alberto, 4 89046 Marina di Gioiosa Jonica (RC) E-mail: nicolantonioa@tiscalinet.it (\*\*) Via Mario Fioretti, 18 - 00152 Roma (\*\*\*) Via G. Pierluigi Da Palestrina, 20 - 40141 Bologna