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NOTES

3801: FIRST BREEDING RECORD OF MACARONESIAN SHEARWATER *Puffinus baroli baroli* IN EL HIERRO (CANARY ISLANDS)

Découverte de la première nidification du "Puffin macaronésien" à El Hierro (Iles Canaries).

The segregation between Little Shearwater *Puffinus assimilis* and Audubon's Shearwater *P. lherminieri* is still questioned. Up to 40 taxa were described in the *lherminieri-assimilis* complex, although recently AUSTIN *et al.* (2004) proposed only 13 subspecies. According to plumage and external morphological characteristics, two subspecies of breeding Little Shearwaters were recorded in the Macaronesian archipelagos (*P. a. baroli* in Azores, Madeira, Selvagens and Canary Islands; and *P. a. boydi* in Cape Verde Islands) (CRAMP, 1998). Mitochondrial DNA analyses demonstrated that the two taxa were related more to Audubon's Shearwater, breeding in the western Atlantic, than any of the other small shearwaters (AUSTIN *et al.*, 2004). Since 2005 Little Shearwater has been re-named Macaronesian

Shearwater with *P. baroli baroli* breeding on the northern Macaronesian Islands and *P. baroli boydi* restricted to the Cape Verde Islands in the south (SANGSTER *et al.*, 2005). Breeding biology of this shearwater is not well known, especially in the Atlantic Ocean (MOUGIN *et al.*, 1992; ZINO & BISCOITO, 1994). In the Canary Islands, only some isolated breeding data are available, but, it is assumed that the majority of laying occurs in January and February, although later birds could lay on May (see MARTÍN & LORENZO, 2001). In other areas, the chronology and total length of the breeding period is rather variable (SNOW, 1965; WARHAM, 1990; MOUGIN *et al.*, 1992; BOOTH *et al.*, 2000; BRETAGNOLLE *et al.*, 2000). At the moment, in this archipelago, breeding has been confirmed in Tenerife, La Gomera, Lanzarote and its surrounding islets of Montaña Clara and Alegranza (MARTÍN & LORENZO, 2001). In the case of El Hierro, MARTÍN & HERNÁNDEZ (1985) reported Little Shearwaters nesting in Roques de Salmor (North-East coast), but no precise evidence was given to prove this breeding because of inaccessibility of burrows. Furthermore, MARTÍN & LORENZO (2001) do not specifically mention reproduction data for this island.

During the inspection of a Cory's Shearwater *Calonectris diomedea* colony situated in the south coast of El Hierro Island (Tacorón) on 19th February 2006, several seabird corpses were found (one European Storm-Petrel *Hydrobates pelagicus*, one *C. diomedea*, three Yellow-legged Gulls *Larus michahellis* and two *P. baroli*). One Macaronesian Shearwater was aged as 55-65 days according to the down development, wing length (129 mm) and the duration of fledgling period (GLAUERT, 1946; FIG. 1). These factors indicate that this bird was born *in situ*. Taking into account the estimated chick age (55-65 days) and incubation (52-58 days, GLAUERT, 1946), we can surmise laying date was carried out before 3rd November 2005.

According to MOUGIN *et al.* (1992), temperature apparently plays an important role in the chronology and the length of the breeding period. Breeding season is spread over six summer months in the coolest localities, over six winter months in warmer ones, and over the entire year in the warmest. This fact is agrees with our discovery due to the south of El



FIG. 1.– Macaronesian Shearwater *Puffinus baroli baroli* corpse. A great down amount and small wing size can be appreciated.

Cadavre d'un "Puffin macaronésien" Puffinus baroli baroli. On peut noter l'abondance de duvet et la petite taille des ailes.

Hierro Island having a higher mean annual temperature of 22° C (MARZOL, 2000). Also, it is interesting to note that in the Canary Islands *P. baroli* is present throughout the year flying at the sea and even visiting their colonies (MARTÍN & LORENZO, 2001) as occurs in other archipelagos (DUNNET, 1984; ZINO & BISCOITO, 1994).

In summary, the finding of a *P. baroli* fledgling present in mid February constitutes the first reliable breeding record of this shearwater on El Hierro, and far as is known, the first outside of the recognised breeding season in Macaronesia.

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EN BREF...

La sixième édition de la formation "*Certificat des Techniques de Recensement d'Oiseaux*" se mettra en place en mars 2007 à l'Université de Bourgogne. Créée en 2000, sous la responsabilité de Bernard FROCHOT, professeur à l'Université de Bourgogne Laboratoire Écologie-Évolution, elle vise à permettre aux stagiaires, professionnels ou amateurs, de maîtriser les techniques de recensement d'oiseaux nicheurs grâce aux méthodes ponctuelles et cartographiques. Parmi celles-ci figure l'IPA (méthode des Indices

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