

BREEDING ECOLOGY OF THE MEDITERRANEAN SUBSPECIES OF STORM PETREL *HYDROBATES PELAGICUS MELITENSIS*

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We followed the breeding season of storm-petrels (*Hydrobates pelagicus melitensis*) in Sicily during 2007 and 2008. The Mediterranean subspecies has been little studied, apart from the main colonies and population estimates. Our aim was to describe the reproductive biology and ecology of this subspecies. We estimated hatching and fledging success, as well as chick growth rate. We also studied the diet and foraging strategies of the species. In 2007 we found that breeding success in the inner part of the colony was higher than on the external part of the colony, despite adults having better body condition on the external part of the colony. In 2008 adults in the inner part of the colony had a better body condition compared to both the external part and the previous year, while adults on the external part had a similar body condition to that of the previous year, but also a lower breeding success than on the inner part of the colony. We suggest two options. First, adults in the inside arrive earlier and occupy the best places within the cave, leaving the outside for the lower condition individuals; the difference in body condition observed in 2007 may be due to weight loss as a result of incubation and long periods of fasting. Second, in 2008, individuals on the external part of the colony had as good body condition as the individuals on the inner part, but probably were less experienced and did not incubate for the whole period. Regarding chick growth we calibrated weight vs wing and observed that chicks reach a maximum weight of 45.4 ± 0.5 g before starting to loose weight. The adults mean weight was 28.5 ± 0.45 g.

It was known that storm-petrels feed on the surface, but we also observed that storm petrels dive for food down to 1.9m. Due to the absence of Euphausiids in the Mediterranean, the subspecies may have adapted to a different diet compared with the Atlantic subspecies; we observed that they eat and feed their chicks with crustaceans, and benthic fish species.