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## THE TUFTED GHOST CRAB *OCYPODE CURSOR* IN THE SALENTO PENINSULA (SE ITALY): NEW RECORDS FROM *CARETTA CARETTA* NESTING SITES

### SHORT NOTE

The tufted ghost crab *Ocyrode cursor* (Linnaeus, 1758) is a semi-terrestrial fossorian brachyuran of nocturnal habits inhabiting supratidal and intertidal sandy beaches (STRACHAN *et al.*, 1999 and literature cited). In Europe *O. cursor* is included among the strictly protected faunal species in Appendix II of the Council of Europe's Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention; EC, 1982) and among the endangered or threatened species in Annex II of the Barcelona Convention (UNEP, 1976). The Mediterranean distribution range of the species includes the eastern sectors of the basin (e.g., Israel, Turkey, and Egypt), with recent records reported in Malta, Sicily, and Salento (see literature cited in MANCINELLI *et al.*, 2019b).

In Peninsular Italy, the species was first observed on the Ionian coasts of the Salento Peninsula (SE Italy) in September 2018 (MANCINELLI *et al.*, 2019a). During several monitoring surveys of nesting sites of the loggerhead turtle *Caretta caretta*, carried out by Centro Recupero Tartarughe Marine (CRTM) of the Museum of Natural History at Calimera (Lecce) in September 2019, additional records of the species were made. In detail, three Ionian beaches of the Salento Peninsula, Padula Bianca (09 September 2019, 40.097929 N, 18.012208 E), Torre Mozza (19 September 2019, 39.868616 N, 18.141740 E), and Torre San Giovanni (26 September 2019, 39.875704 N, 18.132868 E), have been added to the already recorded site (MANCINELLI *et al.*, 2019a). In

all the locations multiple burrows were observed (Fig. 1, top); one adult individual per site was captured, sexed after examination of the apron, identified to the species level, and released. Collected specimens were all males with the exception of a female captured in Torre San Giovanni. Active crabs were generally observed at night scavenging live or dead prey along the shoreline or in the supratidal close to *C. caretta* nesting sites (Fig. 1, bottom).

These records confirm the establishment of the species along the Ionian coasts of the Salento Peninsula, as well as its northward expansion in Peninsular Italy. An advanced assessment of the occurrence of *O. cursor* populations in western Mediterranean waters is necessary, complemented by the estimation of the wide spectrum of anthropogenic pressures on the beach habitats where they are established. In addition, further studies are necessary to elucidate the mechanisms determining the strict association of ghost crabs with the loggerhead turtle *Caretta caretta* nesting sites in the Salento Peninsula and, in general, at a whole Mediterranean basin scale. A coincidence in habitat preferences may actually represent the ultimate determinant of the observed co-occurrence; however, given the omnivore trophic habits of *O. cursor*, and their ability to prey on turtle nestlings (STRACHAN *et al.*, 1999), studies on interspecific interactions with *C. caretta* and other native, protected fauna using the beach habitat for nesting or reproduction is necessary in order to implement integrated multi-species actions of protection and conservation .

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Fig. 1. Top: *Ocypode cursor* burrows photographed in Padula Bianca beach, with details of a number of converging tracks; red scale bar = 10 cm (Photo: P. Carlino). Bottom: an adult *O. cursor* photographed in Torre San Giovanni beach close to a monitored *Caretta caretta* nesting site (Photo: courtesy of E. Biggi).

