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PRESENCE AND DISTRIBUTION OF THE STONE MARTEN, *MARTES FOINA* ERXLEBEN, 1777, ON THE ISLAND OF CRETE (GREECE)

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ABSTRACT – The stone marten, *Martes foina* Erxleben, 1777, that occurs on the island of Crete was described as a typical subspecies, ***M. f. bunites*** Bate, 1905, characteristic of some Greek islands. Today, on Crete, the species is widespread, occurring from the sea level to the mountains, for example in the Lefka Ori (White Mountains). Mortality of martens caused by humans is due to direct persecution and mainly through road accidents, which, however, do not appear to endanger the species.

Key words: *Martes foina*, Mustelidae, Distribution, Crete.

RIASSUNTO – *Presenza e distribuzione della faina,* Martes foina *Erxleben, 1777, sull'isola di Creta (Grecia)* – L'isola di Creta è attualmente interessata dalla presenza di una sottospccie di faina descritta come *Martes foina bunites* Batc, 1905, riconosciuta anchc per altre isole dell'Egeo. La diffusione su Creta di questo mustelide interessa l'intero territorio, dove è presente dal livello dei mare fino alle pendici delle montagne più alte, come nel caso dei Lefka Ori (Montagne Bianche). Causa principale della mortalità delle faine è la persecuzione umana diretta, cui contribuiscono in gran partc anchc gli incidenti stradali.

Parole chiave: *Martes foina*, Mustclidae, Distribuzione, Creta.

INTRODUCTION

Among the representatives of the Mustelidae family that inhabit the islands of the Mediterranean basin, the stone marten, *Martes foina* Erxleben, 1777, is one of the more dispersed. Its distribution ranges from the Balearics to the Dodecanese archipelago, through most of the Ionian and Aegean islands, and Crete.

Three subspecies are reputed to occur on the eastern Mediterranean islands (Fig. 1):

1. *M. f. foina* Erxleben, 1777, recorded from the Ionian islands (Corfu, Lefkas, Zakynthos, Ithake and Kephallinia) (Miller, 1912; Niethammer, 1962; Douma-Petridou, 1984);

2. *M. f. milleri* Festa, 1914, presumably confined to the island of Rhodes in the Dodecanese archipelago (Festa, 1914; Wettstein, 1941; Douma-Petridou, 1984);

3. *M. f. bunites* Bate, 1905, distributed on most of the remaining Aegean islands, and on Crete (Ondrias, 1965; Corbet, 1978; Douma-Petridou, 1984).

Though the stone marten is known from Wurm and from postglacial deposits in the Levant (Kurtén, 1965), it does not appear in Europe until postglacial times (Kurtén, 1968; Anderson, 1970). As observed by Anderson (1970), the species probably entered Europe from the Near East at the end of the Pleistocene or in

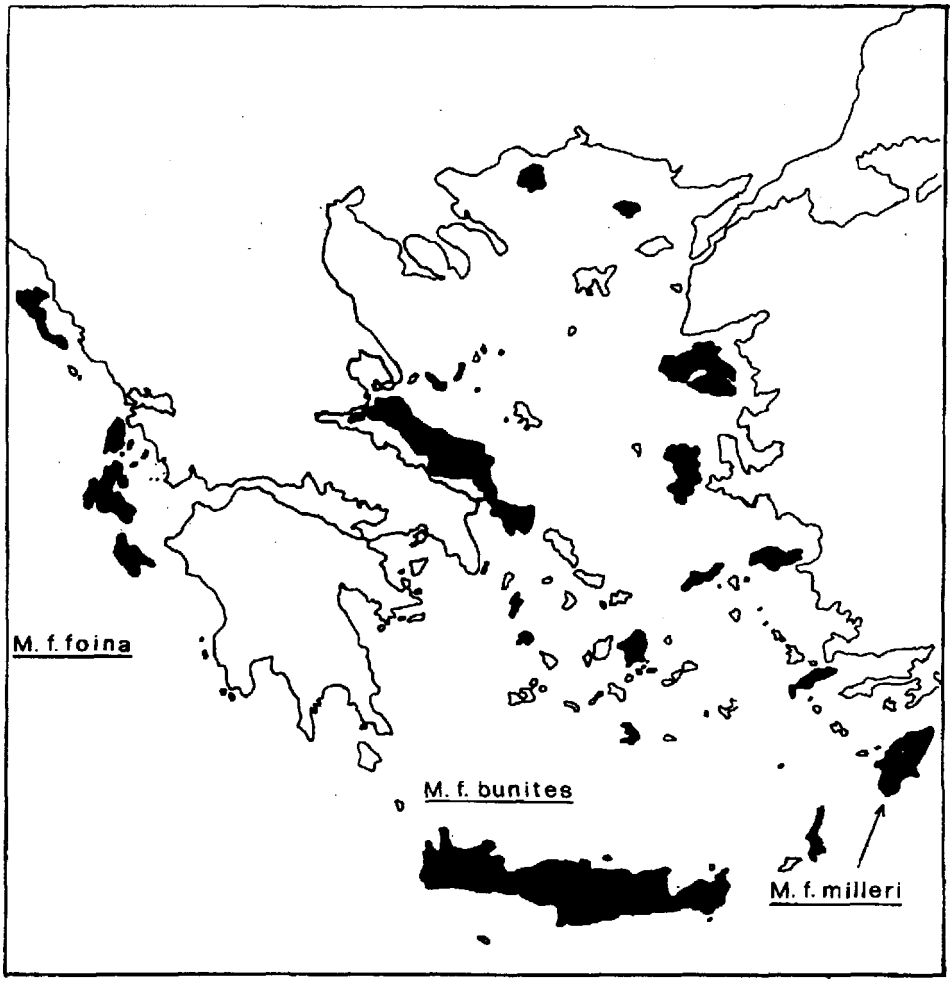

Fig. 1 – Distribution of the stone marten throughout insular Greece (black shaded islands) (rielaborated and updated, after Douma-Petridou 1984).

early postglacial times, and spread slowly north-westward; it may have been a follower of the human cultures.

On Crete, there is no paleontological evidence of the species in the Quaternary fauna. The occurrence of martens on the island has been documented only since late prehistorical or early historical times (Masseti in this volume) by the finding of subfossil osteological remains from Simonelli Cave (Rhetymnon) (Caloi, 1980; Kotzakis, 1990) and from the Minoan settlement of Haghia Triada (Wilkens in press) (Fig. 2).

The distribution, status and ecology of the Cretan population has not up to now been studied. The purpose of this research is to outline the presence and the

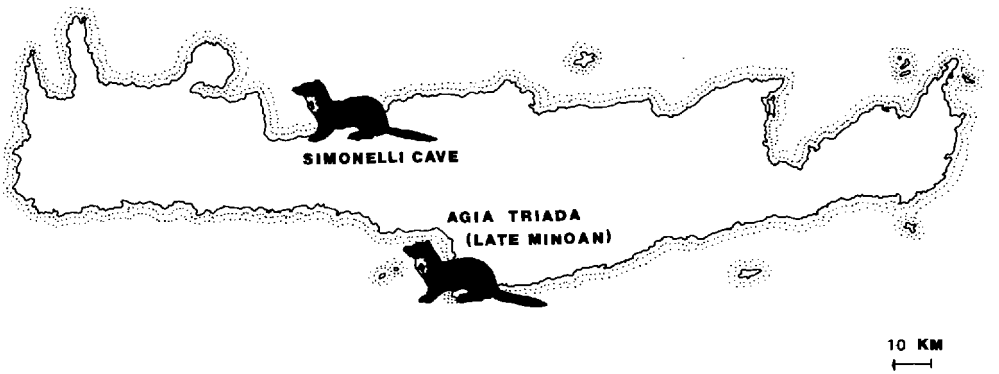

Fig. 2 – Cretan archeological sites that yielded marten subfossil remains.

diffusion of the species on the island of Crete in order to provide a starting point for future studies.

STUDY AREA

Lying along and just above the 35th latitudinal parallel, Crete is located across the southern Aegean basin, forming a link in the orographic chain, through the island of Kythera, to the mainland of Greece, and through Kasos and Karpathos to Rhodes and Anatolia, while to the south the coast of Africa is only 300 km away. The island is about 250 km. long and nearly 60 km. at its widest point. It rises steeply to over 2,400 m (above sea level) and it is essentially constituted by a huge mountain chain emerging directly from the sea. The climate is typically Mediterranean, with long, hot, dry summers. The winter rain, often torrential, falls as snow in the mountains, but the proximity of the sea ensures an extensive frost-free lowland zone. The vegetation is characterized by Mediterranean maquis and garrigues, with scant cypress forests on the mountains. Rare or endemic floral species are: *Zelkova cretica, Crategus heldreichii, Acer sempervirens, Phoenix theophrasti.* Most of the territory is today cultivated in orchards, vineyards and olive groves.

Although the island has been heavily settled by man since prehistorical times, today habitation is mostly concentrated on the northern coast and, to the south, in the area of the fertile Messara plain. Villages are distributed, however, all along the island surface, even on the highest plateaux and along the mountain slopes.

MATERIAL AND METHODS

The present work is based on an interdisciplinary methodology which includes contacts with the Forest Department of Crete (Epitheorisi Dason Kriti), analysis of literary texts (Barrett-Hamilton, 1899; Miller, 1912; Bate, 1905, 1913; Koller, 1928; Wettstein, 1941; Ellermann & Morrison Scott, 1951; Ziiuinermann, 1953; Kahmann, 1965; Ondrias, 1965; Niethammer & Niethammer, 1967; Douma-Petridou, 1984; Nievergelt & Stocker, 1986; Adamakopoulos et al., 1991), examination of available materials from the Natural History Museum of London, the University of Knossos (Hcrakleion) and Cretan private collections.

The distribution of the stone marten was also studied on the basis of personal observations of specimens killed by road accidents in different areas of the island, during the autumn of 1992.

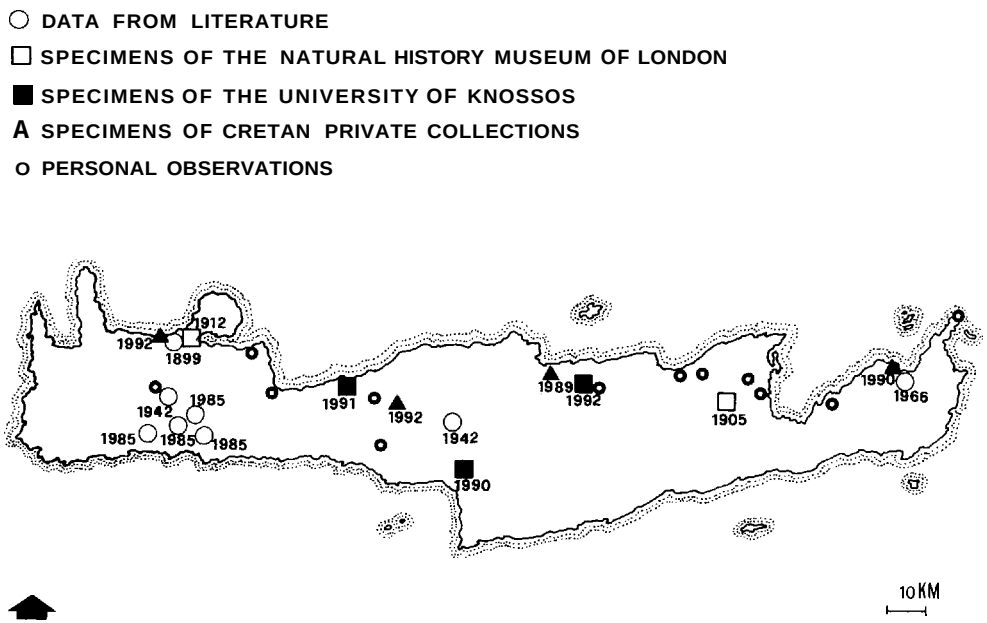

Fig. 3 – Distribution of the stone marten on the island of Crete. Dates of the records are given; undated signs are bascd on observations from 1992 (drawings by Silvia Cantagalli Massetti).

CLOSING REMARKS

The distribution of the stone marten on Crete is illustrated in Fig. 3.

The species seems to be widespread throughout the island's entire territory, from the sea level, as at Cape Sideros on the easternmost point, to the highest mountains, as in the White Mountains range (Lefka Ori), western Crete; in the latter area it has been reported below the Melindaou peak (2,113 m high). It has also been reported from the highest plateaux, such as Lassithi, and from heavily settled areas, such as the Chania or the Aghios Nicholaos surroundings, Because of the apparently great concentration of martens near human settlements, it might be suggested that on Crete, as in many other European regions (cf. Macdonald & Barrett, 1993), the species often behaves as an effective commensal of man.

As at the beginning of this century, still today the carnivore is killed in some numbers by Cretan people, but no longer to export their pelts, as once observed by Bate (1905). At present, it seems that the marten is hunted chiefly because of its reputation as a predator of game and domestic animals. In this regard, during the course of this study more than thirty stuffed specimens were counted in the shop of a taxidermist of Chania. All of them had been killed not long before in the areas surrounding the town.

Mortality of martens caused by humans on Crete, however, seems due mainly to road accidents.

At present, human persecution does not appear to endanger seriously the species. In fact, its widespread distribution shows that the stone marten is a characteristic carnivore in territories that have undergone transformations from a natural to a human landscape which have been going on for several millennia, since the time of the first importation of the species on Crete. Like the other modern carnivores present on the island, the weasel (*Mustela nivalis galinthias* Bate, 1906), the badger *(Meles meles arcalus* Miller, 1907) and, possibly, the wild cat (*Felis silvestris cretensis* Haltenorth, 1953) - all of a presumably ancient anthropochorous origin -, the Cretan marten also seems to represent one of the mammalian species most skilled at avoiding contacts with man, although it inhabits areas densely settled by humans and often behaves as a commensal of man.

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