

Presence of *Discus rotundatus* (Gastropoda, Endodontidae) on the island of Mallorca

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Presence of Discus rotundatus (Gastropoda, Endodontidae) on the island of Mallorca.—The finding of shells of *Discus (Gonyodiscus) rotundatus* (O. F. Müller, 1774) among flood debris in North-eastern Mallorca represents the first record of the species in the Balearic islands. Its presence is probably due to human introduction together with plants and soil.

Key words: Snails, Western Mediterranean, Mallorca, Islands, *Discus rotundatus*, Endodontidae.

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Introduction

The terrestrial molluscan fauna of the Balearic Islands is relatively well known (GASULL, 1966; ALTABA, 1991), although there are still insufficiently explored zones and several taxonomic problems (ALTABA, 1993). The Artà peninsula, at the North-eastern tip of Mallorca, is known for its floristic uniqueness (e.g. BONAFAÉ, 1977-

1980), but has received little attention by zoologists. The location in this region of a previously unrecorded species in the Balearic islands is presented.

Material and Methods

During a campaign to collect terrestrial and freshwater molluscs in this area, a

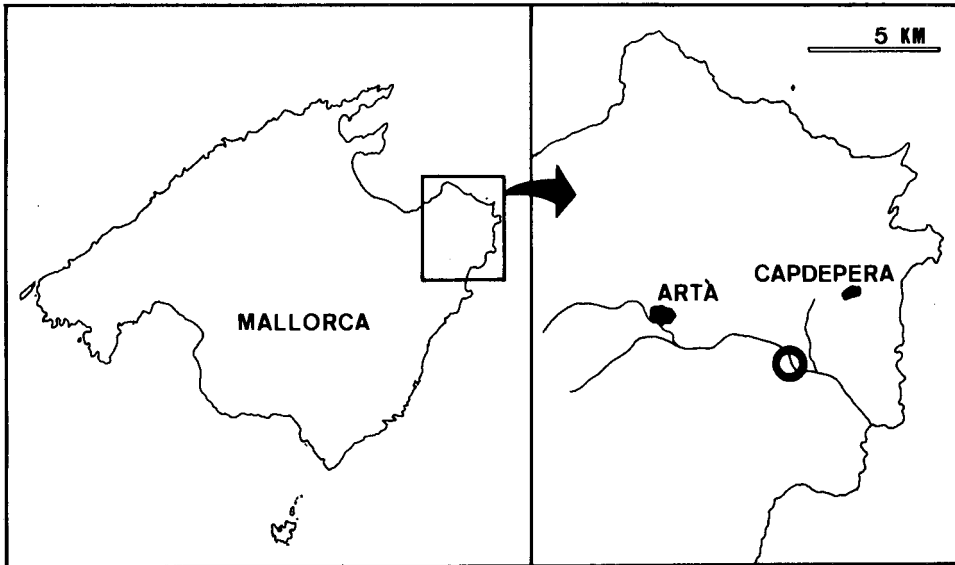


Fig. 1. Site of the finding (circle) at the north-eastern edge of the island of Mallorca.

Lugar del hallazgo (círculo) en el extremo nordeste de la isla de Mallorca.

sample of alluvial detritus was collected on 19 IV 1995 at the banks of Torrent de Canyamel (UTM 31T ED 3592, altitude 45 m). This is a temporary stream, fed by many springs and by runoff from most of the Artà Region (fig. 1).

The alluvial detritus were washed and a large number of gastropod shells were separated manually. These shells had been carried by the water current from sites located further upstream. Thus, they represent a semi-quantitative sample of the mollusc fauna of the drained watershed. The complete list of the species found will be published elsewhere (ALTABA, in press).

Results and Discussion

One of the most interesting species collected is *Discus (Gonyodiscus) rotundatus* (O. F. Müller, 1776). This is an endodon-

tid with a characteristic shell, living in shady or damp habitats. The collected material includes six shells (three juvenile). Voucher specimens have been deposited in the malacological collections of the Museu de la Naturalesa de les Illes Balears (MNCM 911) and the Museu de Zoologia de Barcelona (MZB 96-0151). The remaining specimens are kept in the author's collection (CRA-6029).

This represents the first known finding of *Discus rotundatus* in the Balearic islands. On the beaches of Menorca, GASULL (1965, 1966) found stranded shells of this species. According to this author, these shells would have arrived floating from the continent along with marine currents. The presence of this species in the closest region of the neighbouring island of Mallorca allows to assume a less distant origin for the shells brought to the Menorcan shore.

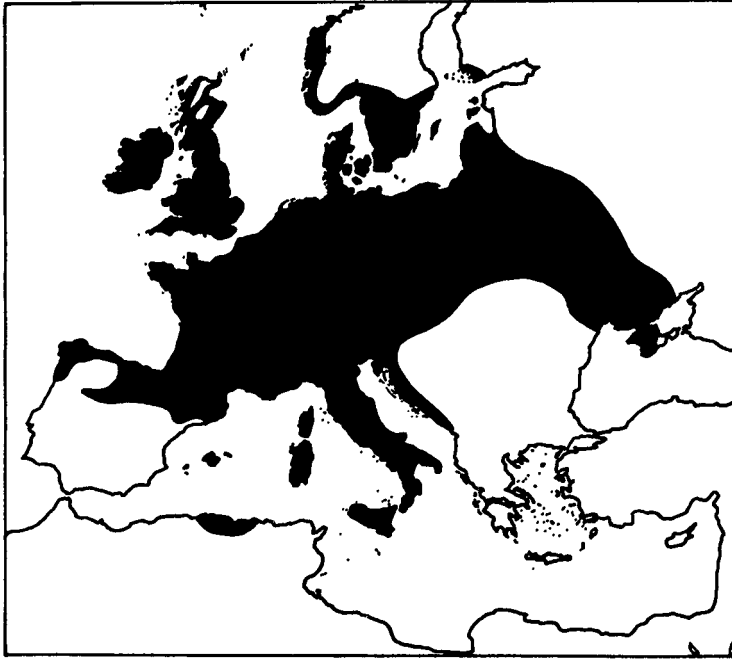


Fig. 2. Geographical distribution of *Discus rotundatus* in Europe and the Mediterranean.

Distribución geográfica de Discus rotundatus en Europa y el Mediterráneo.

The geographical distribution of this snail (fig. 2) extends through most of Europe, the Açores and the Maghrib (FORCART, 1965; RIEDEL & WIKTOR, 1974; BACKHUYS, 1975; KERNEY & CAMERON, 1979; BECKMANN, 1987; ALTABA, 1991), including the northern third of the Iberian peninsula (ALTONAGA, 1989a, 1989b; ALTONAGA et al., 1994) and the Mediterranean islands of Corsica, Sardinia, Elba, Giglio, Gorgona, Montecristo, Capri, Lipari, Salina, and Sicily (ALZONA, 1971; RIEDEL & WIKTOR, 1974; REAL & REAL-TESTUD, 1988; PIANTELLI et al., 1990).

The origin of the Mallorcan population probably lies in an involuntary anthropic introduction. These are tiny animals that burrow in the soil, thus being prone to transportation along with plant material. Indeed, established populations have been found in humanized environments in the

North and East of Europe, Madeira, North-eastern North America, and California (JACOBSON & EMERSON, 1971; RIEDEL & WIKTOR, 1974; ROTH, 1982). The only known instance of *Discus rotundatus* not succeeding to establish after being introduced is in Malta, where it was found in a garden (THAKE, 1984), but later searches have not detected it anywhere on the Maltese archipelago (BECKMANN, 1987). The presence of this species in Mediterranean insular environments appears to fit the biogeographic model proposed to explain the distribution of non-autoctonous species. According to this model, an initial phase of casual introduction and colonization is followed by local extinction, or by establishment and expansion (PIANTELLI et al., 1990; ALTABA, 1993).

Resumen

Presencia de Discus rotundatus (Gastropoda, Endodontidae) en la isla de Mallorca

El hallazgo de conchas de *Discus (Gonyodiscus) rotundatus* (O. F. Müller, 1774) entre aluviones en el nordeste de Mallorca (fig. 1) representa la primera cita de esta especie en las islas Baleares (fig. 2). Su presencia es debida probablemente a la introducción por el hombre junto con plantas y tierra.

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