



## A NEW LOCALITY OF *MONACHA CARTUSIANA* (O. F. MÜLLER, 1774) (GASTROPODA: PULMONATA: HELICIDAE) IN POLAND

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ABSTRACT: *Monacha cartusiana* (O. F. Müller, 1774) was found in a new site in western Poland. The site is located in the city of Poznań, outside the continuous distribution range of the species. It is probably a result of accidental introduction by man.

KEY WORDS: land snails, *Monacha cartusiana*, distribution, new locality

*Monacha cartusiana* (O. F. Müller, 1774) is widely distributed in Eurasia where it lives in open habitats of steppe character: in dry shrubs, on xerothermic swards, road-sides, etc. In the northern part of its range, it is found mainly on dry, sunny hills and river banks.

The south-western part of the continuous distribution range of *M. cartusiana* includes the Iberian Peninsula, France, south-western Germany (KERNEY et al. 1983). In the south-eastern part, it inhabits the northern Caucasus, Crimea, Asia Minor (Turkey and Syria) and the Balkan Peninsula. In Central Europe it is frequent in the Hungarian Lowland, and in the lowland parts of Romania, Bulgaria and southern Ukraine (GROSSU 1955, LOŽEK 1956, SHILEYKO 1983). Isolated localities are known from the southern part of the Czech Republic, Slovakia, south-eastern and south-western parts of Austria, and Switzerland, as well as from northern Germany, the Netherlands, Belgium and Denmark where the species has probably been introduced (KERNEY et al. 1983, BECKMANN 2000).

*M. cartusiana* has been repeatedly recorded from Poland, but according to KOSIŃSKA (1973) and RIEDEL (1988), all the older data are very uncertain and have never been confirmed. The only unambiguous record of the species is the one by KOSIŃSKA (1973, 1979) from Wrocław (SW Poland).

The site of *M. cartusiana* in the Wielkopolska region is located in the city of Poznań, district Stare Miasto, on the left and right banks of the Cybina River which at present is a branch of the main bed of the Warta River (ca. 25 m from the shore), at the Mieszko I bridge, in the middle of an urban area. *M. cartusiana* inhabits ca. 2,000 m<sup>2</sup> of undulating terrain covered mainly by unmown xerothermic sward. The dominant plants are *Calamagrostis epigeios* (L.) and *Poa angustifolia* L., also *Festuca rubra* L., *Oenothera biennis* L., *Melilotus officinalis* (L.), *Artemisia vulgaris* L., *Tanacetum vulgare* L., *Trifolium arvense* L., and young *Populus alba* L. and *Robinia pseudoacacia* L. are present.

*M. cartusiana* is abundant at the site. On the 23rd of August 2002, during 2 hours, the authors collected 91 individuals, including 10 juveniles. The shell measurements of adult specimens were: shell height 6.9–9.6 mm, shell width 12.0–15.9 mm. The snails stayed high on dry grass blades and stems of other plants, only rarely on the soil surface. Their apertures were covered by thin drought-protecting epiphragms. They were accompanied by few specimens of such species as *Cepaea nemoralis* (L.), *Helix pomatia* L. and *Helicella obvia* (Menke). The presence of both adult and juvenile individuals in the population of *M. cartusiana* indicates that it may invade a large area of the xerothermic sward on the right bank of the Warta River.

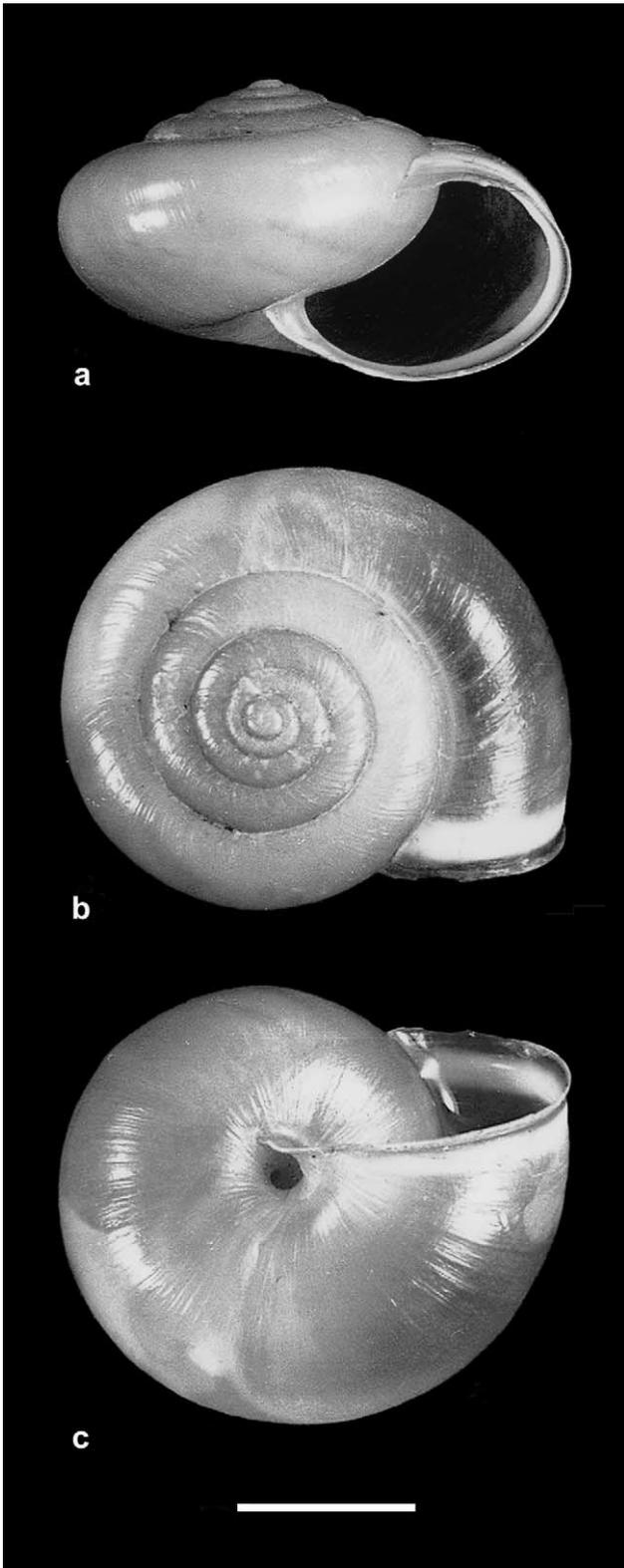


Fig. 1. *Monacha cartusiana*, a specimen from Poznań: a – apertural view, b – top view, c – umbilical view. Scale bar 5 mm

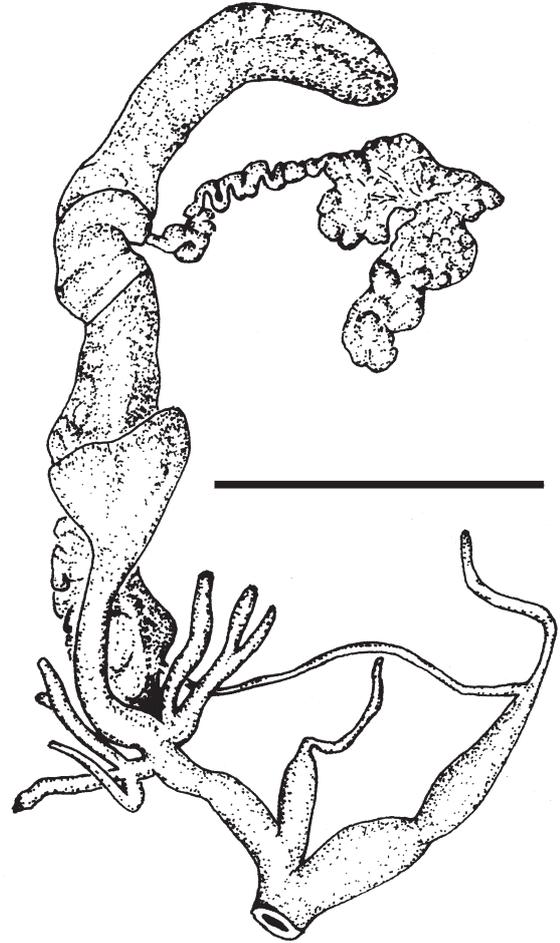


Fig. 2. *Monacha cartusiana*, reproductive system of a specimen from Poznań. Scale bar 1 cm

The shell appearance (Fig. 1a–c), the measurements of the collected specimens and the structure of the reproductive system (Fig. 2) do not depart from illustrations and descriptions in the papers by LOŽEK (1956), KOSIŃSKA (1973), SHILEYKO (1978), GROSSU (1983) and PRIETO (1985).

The occurrence of *M. cartusiana* in the xerothermic sward in Poznań is probably a result of accidental introduction with fodder. This is supported by the fact that the site is located near a fun fair where several ponies are kept, and near busy city streets. According to KERNEY et al. (1983), GODAN (1983), WELTER-SCHULTES (1988) and TRAUTNER (2000) the species is often introduced, even far from its continuous distribution range, mainly due to its liability to passive transport related to human activities.



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