

A new subspecies of *Ruthenica filograna* (Pulmonata: Clausiliidae) from Croatia

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ABSTRACT. A new subspecies of land snails of the clausiliid genus *Ruthenica* has been found on the territory of Republic of Croatia. Illustrated description is presented. New subspecies differs from others in shell shape, semi-apostrophic aperture and sculpture pattern.

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Новый подвид *Ruthenica filograna* (Pulmonata: Clausiliidae) из Хорватии

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РЕЗЮМЕ. Описывается новый подвид *Ruthenica filograna* из Республики Хорватия. Новый подвид сравнивается с номинативным подвидом и прочими подвидами *R. filograna*, а также со сходным по форме раковины видом *R. gallinae*. Новый подвид отличается от прочих вытянутой раковиной с полуапострофным устьем и характером осевой скульптуры.

geographical races was made by Nordsieck [2019]. Three subspecies of *R. filograna* in addition to the nominotypical one are known presently.

According to Štamol and Velkovrh [1995] *R. filograna* (s.l.) was recorded from the islands of Cres and Losinj (Croatia). Štamol [2010] mentioned *R. f. filograna* for “Croatia” without concretization of locality. Described new subspecies distinctly differs from the nominotypical one and others in conchological characters, as well as in geographical distribution. All early known subspecies excluding nominotypical are described from Romania (Transilvania) [Nordsieck, 2019]. Nominotypical subspecies has a wide range from northern Italy, Slovenia, easternmost Germany to central part of European Russia. New subspecies described here is from Croatia.

Introduction

The land malacofauna of the southern Europe has not yet been completely examined. Every year few new molluscan taxa are described from this area including clausiliids [Nordsieck, 2019]. The genus *Ruthenica* Lindholm, 1924 contains two species, one of which *R. gallinae* (Bielz, 1861) is endemic of Romania with very narrow geographical range (South-West Apuseni mountains). The second species, *R. filograna* (Rossmassler, 1836), the type species of the genus, has a broad geographical range from Estonia in the North to Bulgaria in the South and from the Russian Plain in the East to Italian peninsula in the West. The radiation center of this species is Romanian mountains from where a few subspecies were described earlier [Nordsieck, 2019]. The most recent complete review of the species distribution and

Abbreviations used in the text:

D – shell width;
H – shell height;
Hap – height of the aperture;
REC – private collection of R. Egorov;
SMF – Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt a. Main, Germany;
WAp – width of the aperture;
ZMMU – Zoological Museum of the Lomonosov Moscow State University, Moscow, Russia.

Taxonomy

Ruthenica filograna pocatterae subsp. nov.
Fig. 2A1-A6

Zoobank registration: urn:lsid:zoobank.org:act:8AD062EC-42D3-42B1-AECC-C81A545949EB

Type material. Holotype (SMF 360698), dry

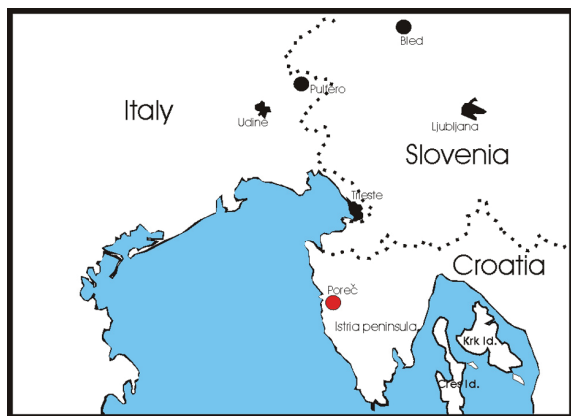


FIG. 1. Schematic map of distribution of *Ruthenica filograna pocaterrae* ssp. nov. (red circle) and *Ruthenica filograna* s.l. (black circles) in the South-western part of the area.

РИС. 1. Карта-схема распространения *Ruthenica filograna pocaterrae* ssp. nov. (красный круг) и *Ruthenica filograna* s.l. (черные круги) в Юго-западной части ареала.

sample; 1 paratype in ZMMU (Lc-40945), dry sample; 3 paratypes in private collection of Roman Egorov, dry samples; 4 paratypes in private collection of Giuseppe Pocaterra. All specimens are from the type locality.

Type locality. Croatia, western coast of Istria, south of Porec, near Limski Channel, in litter under trees, VI.2006, coll. Giuseppe Pocaterra.

Description. Shell is elongated, fusiform, three upper whorls (embryonic) are cylindrical. Penultimate whorl is only slightly wider than the body whorl. There are 19-22 ribs on the body whorl and 18-20 on the penultimate one. Aperture is regularly pyriform, distinctly semi-apostrophic. In studied specimens, palatal callus absent or rather weakly developed. Superior lamella is rather low, reach the edge of aperture. Inferior lamella smoothly bends up and connected with lip by one fold. Subinterlamellar fold is absent. Subcolumellar lamella well developed, lying deep and practically not visible in front view.

Dimensions. Holotype: H – 10.2 mm, D – 1.78

mm, Hap – 1.62 mm, WAp – 1.31 mm; paratypes: H – 8.9-9.92 mm, D – 1.24-1.78 mm, Hap – 1.51-1.70 mm, WAp – 0.98-1.12 mm.

Etymology. Named in honor of Giuseppe Pocaterra which untimely departed from us on 08.03.2016. Giuseppe has collected described here samples.

Distribution. Known only from the type locality.

Discussion. The new subspecies differs from the nominotypical and other subspecies in the following shell characters: shell slender, body whorl very elongated, 3 embryonic below 1.25 uppermost whorls equal in width, aperture distinctly semi-apostrophic, lower whorls covered by widely spaced lamellate axial ribs. Slovenian specimens are similar to the nominotypical subspecies in its shell characters (Fig. 2D1-D3). Upper whorls (except 1.25 uppermost) of the new subspecies are almost equal in width (Fig. 2A5) while they are different in width at nominotypical subspecies (Fig. 2A6). Also, in comparison with all other subspecies *R. filograna pocaterrae* is more strongly and on average more sparsely ribbed on last two whorls.

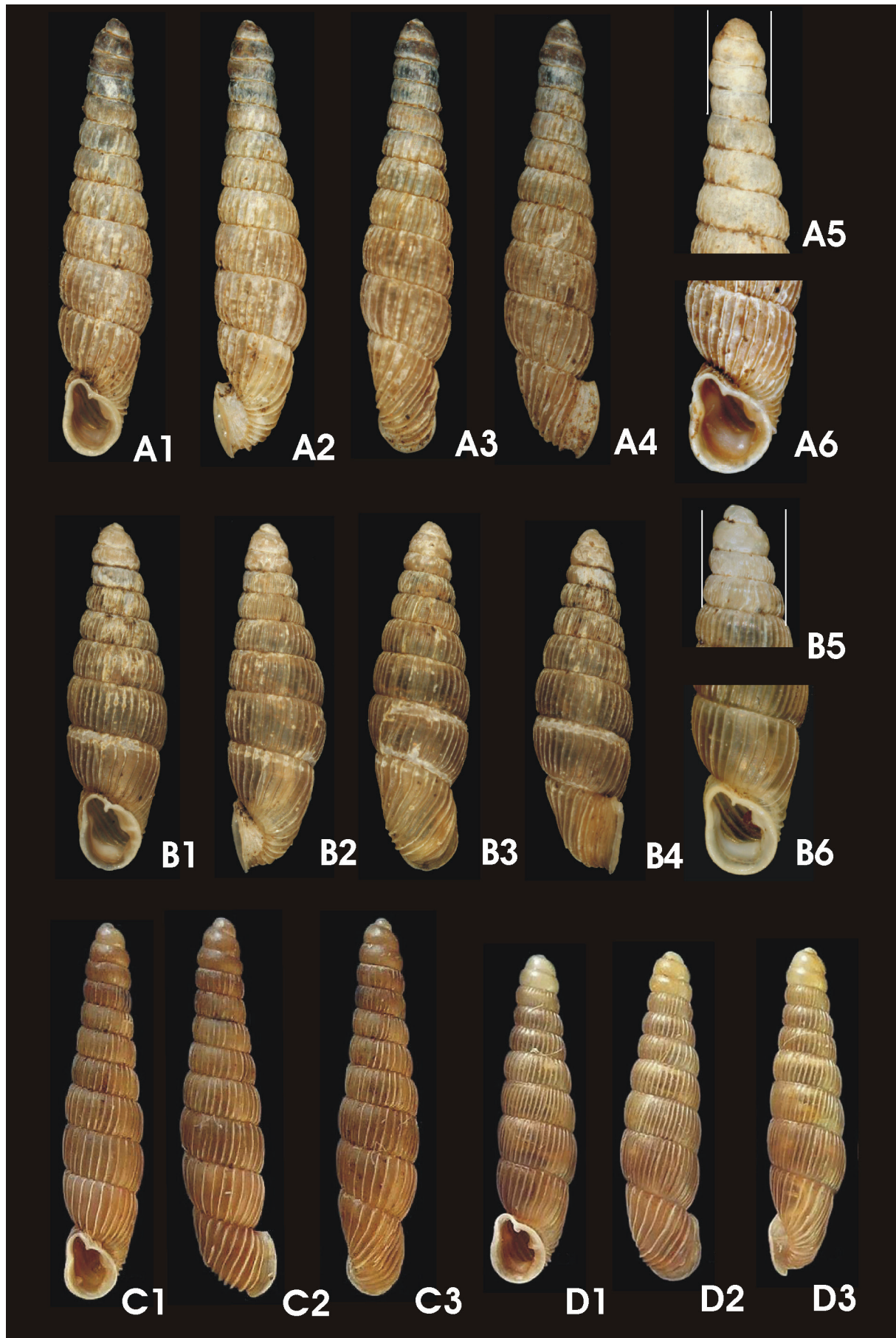
Also, new subspecies differs from *R. gallinae* in less detached aperture, character of axial sculpture and geographical distribution.

Ruthenica f. filograna was recorded in Croatia [Štamol, 2010] and *R. filograna* s.l. mentioned as occurring “frequently on the adjoining mainland” [Štamol, Velkovrh, 1995: 234]. However, there is no description and illustrations of the shells of mentioned specimens. Also, the species is mentioned from Cres and Losinj islands, also without description of shell [Štamol, Velkovrh, 1995]. Therefore, I cannot say whether these specimens belong to described herein subspecies.

Thus, *Ruthenica filograna* is most widely distributed species of the genus and includes 5 subspecies: *R. f. filograna* (Rossmassler, 1835), *R. f. catarrhacetae* Bielz, 1861, *R. f. kimakowiczi* Nordsieck, 2019, *R. f. streicola* Nordsieck, 2019, and *R. f. pocaterrae* subsp. nov.

FIG. 2 (on the next page). **A1-A6.** *Ruthenica filograna pocaterrae* ssp. nov., holotype, SMF 360698. **B1-B6.** *R. f. filograna*, H – 7.52 mm, Western Russia, Smolensk Region, to the South of Ugra railway station, forest in ~150 m to the West from railway opposite sign “51 km”, 13-10-1996, coll., det. R. Egorov, REC. **C1-C3.** *R. f. filograna*, H – 8.1 mm, North Italy, Udine, N 46.17375, E 13.48128, to the West from Pulfero (camping Podpolizza), right side of the Val Natisone, alt. 220 m, coll., det. J. Eikenboom (collection nr. 12800). **D1-D3.** *R. f. filograna*, H – 8.0 mm, Slovenia, Bled, N 46.35797, E 13.07717, to the West of Lake Bled, in rocks and humus soil on the hill Ojstrica, coll., det. J. Eikenboom (collection nr. 3389), 08.1982. Photo by A. Sysoev (Figs A-B); J. Eikenboom (Figs C-D).

РИС. 2 (на след. стр.). **A1-A6.** *Ruthenica filograna pocaterrae* ssp. nov., голотип, SMF 360698. **B1-B6.** *R. f. filograna*, H – 7.52 мм, Западная Россия, Смоленская обл., к Югу от ж/д станции Угра, в лесу примерно в 150 м на Запад от ж/д знака «51 км», 13-10-1996, сб., опр. Р. Егоров. **C1-C3.** *R. f. filograna*, H – 8.1 мм, Северная Италия, Удине, N 46.17375, E 13.48128, к Западу от г. Пульферо (кемпинг Podpolizza), правая сторона Val Natisone, высота 220 м, сб., опр. J. Eikenboom (коллекционный номер 12800). **D1-D3.** *R. f. filograna*, H – 8.0 мм, Словения, г. Блед, N 46.35797, E 13.07717, к Западу от оз. Блед, в скалах на холме Ойстрица, сб., опр. J. Eikenboom (коллекционный номер 3389), 08.1982. Фото А. Сысоева (Рис. А-В) и J. Eikenboom (Рис. С-Д).



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