



# Basteria

JOURNAL OF THE NETHERLANDS MALACOLOGICAL SOCIETY

VOLUME 81 (1-3) | 10 SEPTEMBER 2017



Cretan subspecies of  
*Metafruticicola nicosiana*  
Neubert & Hirschfelder  
(p.60)

Nederlandse  
Malacologische  
Vereniging

## EDITORIAL BOARD

PROF. DR E. GITTENBERGER (editor-in-chief),  
DR B. KOKSHOORN (layout editor),  
G.C. KRONENBERG (editor).

## ASSOCIATED EDITORS

PROF. DR G. VAN DER VELDE (freshwater molluscs),  
PROF. DR G.J. VERMEIJ (fossil and recent marine molluscs),  
DR F.P. WESSELINGH (fossil molluscs).

## EDITORIAL ADDRESS

Naturalis Biodiversity Center  
Darwinweg 2, P.O. Box 9517, NL-2300RA Leiden  
Tel. +31(0)71-5687614, Fax. +31(0)71-5687666,  
e-mail: [info@basteria.nl](mailto:info@basteria.nl)

## AUTHOR GUIDELINES

For author guidelines, please visit the website at [www.basteria.nl](http://www.basteria.nl)

BASTERIA is the scientific journal of the Netherlands Malacological Society;  
for information and/or subscription please refer to the Hon. Secretary,  
e-mail: [nmv-secretaris@spirula.nl](mailto:nmv-secretaris@spirula.nl)  
(postal address: Naturalis Biodiversity Center, P.O. Box 9517, NL-2300RA Leiden, The Netherlands),  
or visit the website at [www.spirula.nl](http://www.spirula.nl).



[www.facebook.com/Basteria](http://www.facebook.com/Basteria)

ISSN-0005-6219

*The paper in this journal meets the guidelines for permanence and durability  
of the Committee on Production Guidelines for Book Longevity of the Council on Library Resources.*

Printed by HIGH TRADE, Zwolle, The Netherlands

# On a new subspecies of *Metafruticicola* (*Rothifruticicola*) *nicosiana* from Crete (Gastropoda, Pulmonata, Hygromiidae)

EIKE NEUBERT

Natural History Museum of the Burgergemeinde Bern, Bernastrasse 15, CH-3005 Bern, Switzerland; eike.neubert@nmbe.ch.

HANS-JÜRGEN HIRSCHFELDER

Schützenstraße 2, D-93309 Kelheim, Germany; hja@hirschfelder-kelheim.de

60

A new subspecies from Crete is described. This taxon is affiliated to the polytypic *Metafruticicola* (*Rothifruticicola*) *nicosiana*. It fills a distribution gap of this species in the centre of Crete.

Key words: Gastropoda, Hygromiidae, *Metafruticicola*, taxonomy, Greece, Crete.

## INTRODUCTION

The genus *Metafruticicola* von Ihering, 1892, was recently revised by Bank et al. (2013). Among the species treated was the polytypic *Metafruticicola* (*Rothifruticicola*) *nicosiana* (Mousson, 1854), which is currently known to live in the southern part of the Aegean, i.e. *M. (R.) n. nicosiana* (Cyprus), *M. (R.) n. claudia* Bank & Welter-Schultes, 1998 (Gavdos and Gavdopoula), *M. (R.) n. freytagi* (von Maltzan, 1883) (western part of Crete), *M. (R.) n. maasseni* Bank, Gittenberger & Neubert, 2013 (eastern part of Crete), *M. (R.) n. conciliatrix* Fuchs & Käufel, 1936 (Karpathos) and *M. (R.) n. soror* Fuchs & Käufel, 1936 (Rhodos) (Bank et al. 2013, figs 93, 94). The distribution pattern of the subspecies on Crete shows a large gap between the western subspecies *freytagi* and the eastern subspecies *maasseni*. This gap of more than 100 km length (as the crow flies, Fig. 1) is, however, inhabited by a number of other *Metafruticicola* species like for example the wide-

spread *Metafruticicola* (*Westerlundia*) *noverca* (L. Pfeiffer, 1853). Recently, another subspecies of *M. (R.) nicosiana* was collected by the second author in the centre of that distributional gap, and is subsequently described here.

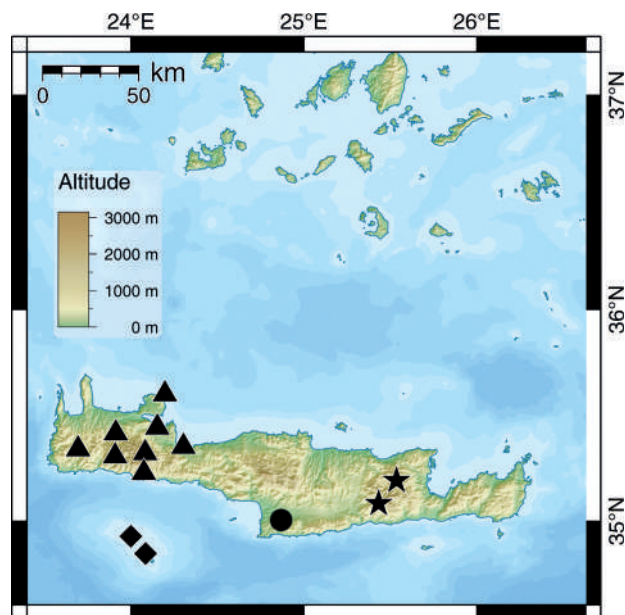
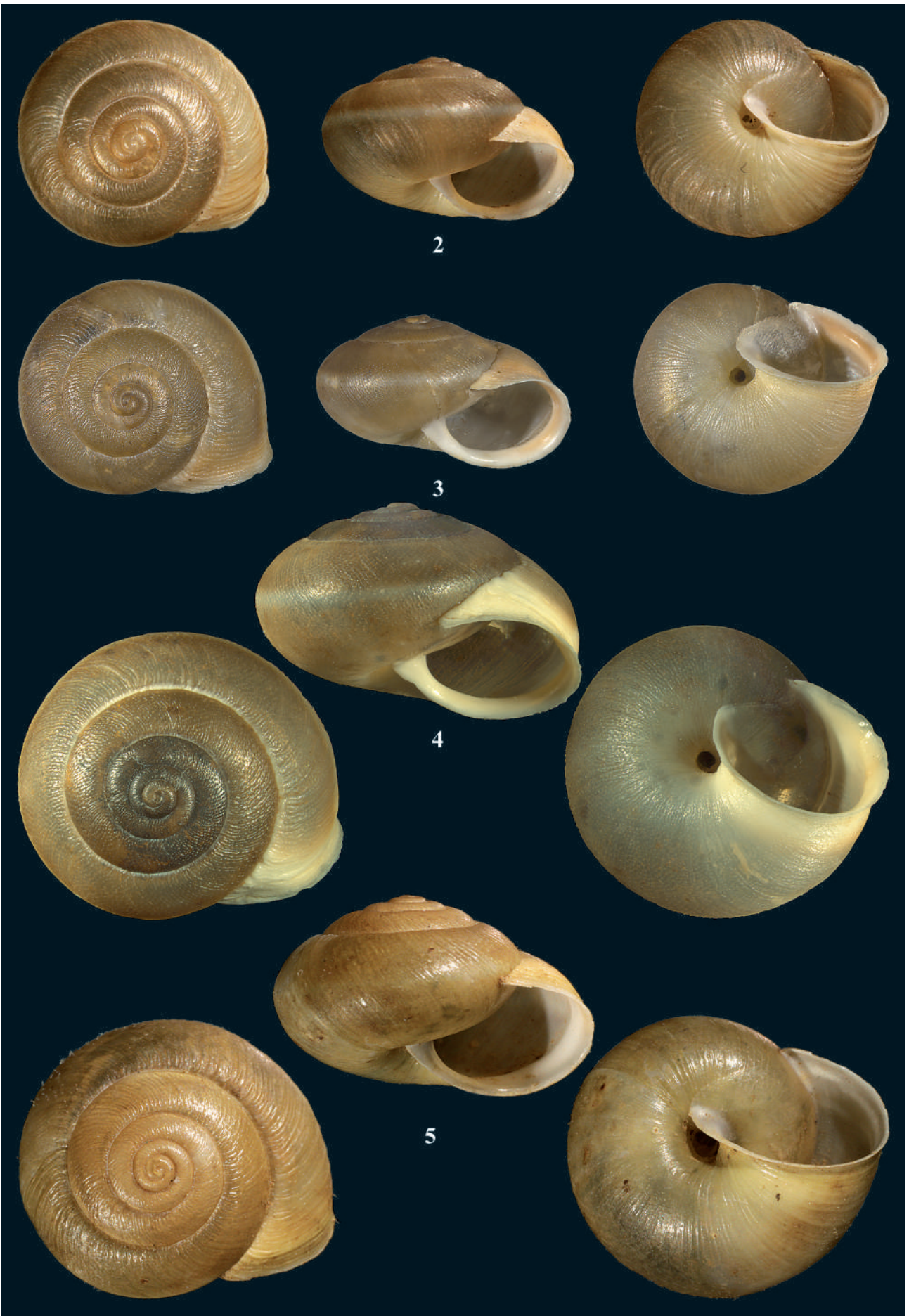


Fig. 1. Distribution pattern of *Metafruticicola* (*Rothifruticicola*) *nicosiana* subspecies on Crete and surrounding area. *M. (R.) n. freytagi* (triangles); *M. (R.) n. claudia* (diamonds); *M. (R.) n. maasseni* (stars); *M. (R.) n. viglensis* n. ssp. (circle)





Abbreviations: BANK, private collection R.A. Bank, Hoogezeand; D, diameter; NMBE, Natural History Museum Bern; NNM, Naturalis Biodiversity Center, Leiden.

*Metafruticicola (Rothifruticicola) nicosiana viglensis*  
subspec. nov. (Figs 1, 3)

Type series. – NMBE 549122, holotype; leg. H.-J. Hirschfelder, 22.iv.2016.

Type locality. – Greece, S Crete, Nom. Irakliou, W Asterousia Mountains, small group of rock boulders about 1.4 km E of Pigaidakia beside the road to Mt. Ghria Vigla, 34.9873°N 24.8659°E, 510 m NN. The type locality is situated on the SW slope of Mt. Ghria Vigla about 1.0 km from the summit.

Description. – Shell small, depressed with slightly raised spire, horny brown with a conspicuous bright spiral band on the periphery of the shell. Protoconch of 1.5 whorls, covered by a dense sculpture of wrinkles; teleoconch of 4 well rounded whorls. Complete shell covered by a dense sculpture of large and evenly dispersed granules occurring even in the umbilicus, usually arranged on low and inconspicuous axial ribs. Suture of medium depth; last whorl slightly descending below the periphery of the preceding whorl with the upper part of the peristome slightly expanding and inclined. Aperture broadly oval, with a strong internal lip, indicated on the shell surface as a bright yellow stripe; peristome white, enlarged, sharp, broadly flared, partly covering the umbilicus. Umbilicus narrowly open, last whorl slightly eccentric.

Shell height 6.9 mm; shell diameter 9.3 mm; peristome height 5.3 mm; peristome diameter 4.8 mm ; 5 whorls .

Etymology. – The new subspecies is named after Mount Ghria Vigla (657 m) in the western Asterousia Mountains. On its SW slope *M. nicosiana viglensis* subspec. nov. was found.

Distribution. – The new subspecies is only known from a single specimen from the type locality. Although the genus *Metafruticicola* in Crete is quite well known, the new subspecies has hitherto been over-

looked. We estimate that its distribution probably covers only a small range in the western Asterousia mountains.

Remarks. – The new subspecies has a shell size like *M. (R.) n. freytagi* (Fig. 2), but it differs from that subspecies by its much denser teleoconch sculpture of granules, absence of ribs on the teleoconch, and the more open umbilicus. The shell of *M. (R.) n. maasseni* (Fig. 5) is larger, its granules are much smaller and less numerous, and the umbilicus is partly covered by the columellar reflection of the peristome. In *M. (R.) n. claudia* (Fig. 4) the shell is larger, the umbilicus is narrower and shaped like a bore-hole, and the last whorl declines much deeper under the periphery. It seems that the new subspecies is closely related to the latter subspecies, which is only known from the two small islands Gavdos and Gavdopoula south of Crete in the Libyan Sea.

At the type locality only few other mollusc species were found, all in very low numbers, viz. *Albinaria corrugata corrugata* (Bruguière, 1792), *Albinaria terebra* (L. Pfeiffer, 1853), *Xerocrassa mesostena* (Westerlund, 1879) and *Xerotricha conspurcata* (Draparnaud, 1801). *Metafruticicola sublecta* (von Maltzan, 1884) and *M. noverca* (L. Pfeiffer, 1853) should live in the same region (Bank et al. 2013: 77, 108, 127), but were not found at the type locality.

#### REFERENCES

- Bank, R. A., Gittenberger, E. & Neubert, E., 2013. Radiation of an eastern Mediterranean landsnail genus: revision of the taxa belonging to *Metafruticicola* von Ihering 1892 (Gastropoda, Pulmonata: Hygromiidae). – *Archiv für Molluskenkunde* 142 (1): 67–136 (10.1127/arch.moll/1869-0963/142/067-136).
- Ihering, H. von, 1892. Morphologie und Systematik des Genitalapparates von *Helix*. – *Zeitschrift für wissenschaftliche Zoologie* 54 (1/2): 386–423; 54 (3): 425–520, pls 18–19.
- Mousson, A., 1854. Coquilles terrestres et fluviatiles recueillies par M. le Prof. Bellardi dans un voyage en Orient: 1–59. Zürcher & Furrer, Zürich: 1–59. [partly (pages 16–56) reprinted in 1854: Mittheilungen der naturforschenden Gesellschaft in Zürich 3 (8, 101): 362–372; 3 (8, 102): 373–388; 3 (8, 103): 389–402].
- Pfeiffer, L., 1853. Monographia Heliceorum viventium sistens descriptiones systematicas et criticas omnium huius familiae generum et specierum hodie cognitarum. Volumen tertium: i–viii, 1–711. F.A. Brockhaus, Leipzig.

---

**Figs 2–5** (previous page). Cretan subspecies of *Metafruticicola (Rothifruticicola) nicosiana*. **2**, *M. (R.) n. freytagi*, Chania, 3 km W Georgioupoli, D 9.28 mm; **3**, *M. (R.) n. viglensis* subspec. nov., holotype NMBE 549122, D 9.3 mm; **4**, *M. (R.) n. claudia*, paratype BANK, Gavdos Island, D 11.9 mm; **5**, *M. (R.) n. maasseni*, holotype NNM 329516, Iraklio, monastery Moni Kardiotissa between Krasio and Kera, D 11.8 mm.

---