

Addendum to the type catalogue of the malacological collection in the Museu de Ciències Naturals de Barcelona

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Abstract

Addendum to the type catalogue of the malacological collection in the Museu de Ciències Naturals de Barcelona. The catalogue of type specimens of molluscs of the Museu de Ciències Naturals de Barcelona, published in 2008, is updated with new material corresponding to 42 species and subspecies of continental molluscs from the Iberian peninsula, the Balearic Islands, and the Canary Islands. Most of these type specimens belong to historical collections of the museum or are part of the malacological collection of Miquel Bech, donated in 2009. Information provided includes the type category, number of specimens, geographic provenance, type specimens housed at other institutions, and current taxonomical status, together with supporting texts of nomenclatures if pertinent. The catalogue also includes a brief gallery of photographs of types per taxon.

Key words: Catalogue, Type specimens, Continental molluscs, Museu de Ciències Naturals de Barcelona

Resumen

Nuevas aportaciones al catálogo de ejemplares tipo de la colección malacològica del Museu de Ciències Naturals de Barcelona. Se amplía el catálogo de ejemplares tipo de moluscos del Museu de Ciències Naturals de Barcelona, publicado en 2008, con nuevo material correspondiente a 42 taxones de moluscos continentales procedentes de la península ibérica, islas Baleares y Canarias. Los especímenes pertenecen en su mayoría a las colecciones históricas del Museo o a la colección malacològica de Miquel Bech, donada a la institución en 2009. Para cada taxón representado se aporta información relativa a la categoría del tipo, el número de ejemplares, la procedencia geográfica, los especímenes tipo custodiados en otras instituciones y el estatus taxonómico actual, con indicación, en su caso, de los textos de referencia por lo que respecta a nomenclatura. El catálogo incluye asimismo una breve galería de imágenes de tipos para cada taxón.

Palabras clave: Catálogo, Ejemplares tipo, Moluscos continentales, Museu de Ciències Naturals de Barcelona

Resum

Noves aportacions al catàleg d'exemplars tipus de la col·lecció malacològica del Museu de Ciències Naturals de Barcelona. S'amplia el catàleg d'exemplars tipus de mol·luscs del Museu de Ciències Naturals de Barcelona, publicat l'any 2008, amb nou material corresponent a 42 tàxons de mol·luscs continentals de la península Ibèrica, les illes Balears i les Canàries. La majoria d'espècimens pertanyen a les col·leccions històriques del Museu o a la col·lecció malacològica de Miquel Bech, donada a la institució el 2009. Per a cada tàxon representat s'aporta informació relativa a la categoria del tipus, el nombre d'exemplars, la procedència geogràfica, els espècimens tipus custodiats en altres institucions i l'estatus taxonòmic actual, amb indicació, si escau, dels textos de referència pel que fa a nomenclatura. El catàleg inclou així mateix una breu galeria d'imatges de tipus per a cada tàxon.

Paraules clau: Catàleg, Exemplars tipus, Mol·luscs continentals, Museu de Ciències Naturals de Barcelona.

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Introduction

The former catalogue of type specimens of molluscs in the Museu de Ciències Naturals de Barcelona (Natural Sciences Museum of Barcelona, MCNB) and in the Museu Valencià d'Història Natural (Valencian Museum of Natural History of Alginet, MVHN) conveys information about 134 taxa. This article (Martínez–Ortí and Uribe, 2008) was the first result of the ongoing collaboration between the malacological departments of these two museums.

Following the previous publication, a detailed survey has allowed the Museum in Barcelona to database its malacological collection, with special emphasis at the end on historical and most recent collections. Forty–two new entries of species and subspecies have been added to the catalogue of types and update the previously published list. All these species are from the Iberian peninsula, the Balearic Islands, or the Canary Islands.

Most of the new type specimens belong to the collection assembled by the Catalan malacologist Miquel Bech i Taberner (1919–2006), whose Spanish continental samples were donated to the MCNB in 2009. Miquel Bech had a long career in collecting and studying molluscs and was a longstanding scientific collaborator on mollusc projects carried out at the Museum. His endowment of some 30,000 specimens has greatly enriched the scientific collections at the Museum. Among his publications, we highlight the monograph *Mol·luscs terrestres i d'aigua dolça* (Bech, 1990), a synthesis of his contribution to the malacological study of Catalan fauna. Type specimens in this collection are related to 17 taxa, 13 of which he described.

The donation of the Bech collection and the process of databasing its original information coincided with the revision and updating of the historic collections that are the core of the malacological section at the MCNB. In consequence, several records of molluscs have been located, recognized as type specimens, and linked to 12 taxa. Some of these lots have

completed the type series already published, but most refer to new taxa in the catalogue. These materials were deposited as private collections in the Museum in Barcelona (now merged in the whole malacological collection). Prestigious malacologists contributed their collections: Artur Bofill i Poch, Joan Baptista d'Aguilar–Amat, Manuel de Chía Bajandas, and Luis Gasull Martínez.

Since the first catalogue was published, further type specimens belonging to recently described species have been donated to the Museum. The papers with such descriptions provide detailed and current information on new taxa and the rank of voucher type specimens identified by their accession number in the Museum. We consider that references to these recent types would not add further relevant information to the present catalogue. We have focused particularly on taxa that deserved exhaustive revision, either for their potential type materials, or for the associated descriptive papers.

Exceptionally, we have also included other recently described taxa, types of which have been donated to MCNB since the publication of their descriptions. Their presence at the Museum is acknowledged in the present work.

Methods and results

The present inventory of type specimens follows the structure of the former catalogue by Martínez–Ortí and Uribe (2008), as detailed in its introduction. In addition to presenting data concisely and to streamlining their search in electronic format, a formal coherence for future addenda is intended. For each taxon, the following information is provided:

- Taxonomic hierarchy according to Bouchet et al. (2017).
- Original scientific name, author and year of publication.
- Complete bibliographic reference where the new taxon is described. If needed, in long papers, the page and/or figure numbers are given to facilitate location of specific information.
- Transcription of the type locality, as mentioned in the aforementioned paper. Comments are given in some cases to update toponymy or help location on a map.
- Type specimens housed in the MCNB, with data concerning category of the type, record number, geographic provenance (only when data from labels associated to the type specimens provide with complementary information), number of specimens and preservation method, and also the collection it may have belonged to prior to housing in the Museum of Barcelona. The acronym is MZB for zoology collections at the Museu de Ciències Naturals de Barcelona.
- Type specimens housed at other institutions.
- Current systematic position.
- Complete bibliographic reference of papers where the taxon is reviewed and updated. Explanations on updating reasons are included.
- Nomenclatural comments that could be of special interest to readers; nomenclatural acts derived from revisions are annotated when the links between taxonomic names and actual type specimens housed in MCNB need justification.
- Brief gallery of photographic images by one of the authors MP.

The number of type specimens of certain taxa cited in the previous catalogue has increased and some series have even been completed with new additions of specimens to the malacological collection at the MCNB. In such cases we have fully reproduced the previously recorded information, and updated data associated with the new specimens so as to provide a single record with all available information about the taxon. Similarly, for the purpose of managing information on a full page for each taxon, possibly redundant information is not excluded (e.g., references to current taxonomic status for species of genus *Bythinella* by Bech, or comments respect to the location in other centres of type specimens of taxa described by Caziot).

Once the Bech collection donated to the Museum was inventoried and documented, we noted that type material of some taxa described by the author were missing (Bech, 1979, 1993), so that the relationship presented in this work is not as complete as we would wish. In Bech and Fernández (1986) a particular sample of specimens of *Bythinella* is described as belonging to a "possible" new species. The authors referred to an original shell collected by Jordi Cadevall with particular characteristics that motivated the recognition of more specimens from the same place. In fact, this species has never been formally described nor named since the authors merely showed the intention to do so in the future (M. A. Alonso-Zarazaga, personal communication). The material quoted in this paper is located in the Bech collection but it does not deserve to be included in a catalogue types. For *Subulona (Subulona) anarum*, the authors of this new species (Altimiras and Bech, 2000) explicitly indicated the deposition of type specimens in the Bech collection, but did not do so for the remaining individuals. Efforts made to locate the material (or at least part of it) in other centers or institutions with which the malacologist was involved have been unsuccessful to date.

Alphabetical list of mentioned collections and institutions

- *Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona / Animal Biodiversity Resource Center of the Faculty of Biology, University of Barcelona (Spain).*
- *Departamento de Biología Animal, Universidad de la Laguna, Tenerife / Department of Animal Biology, University of La Laguna, Tenerife (Spain).*
- *Facultad de Biología, Universidad del País Vasco / Faculty of Biology, University of the Basque Country (Spain).*
- *Laboratorio de Parasitología, Facultad de Veterinaria y de Biología, Universidad de León / Laboratory of Parasitology, Faculty of Veterinarian and Biological Sciences, University of León (Spain).*
- *Museo de Ciencias Naturales de Tenerife / Natural Sciences Museum of Tenerife (Spain).*
- *Museo Nacional de Ciencias Naturales, Madrid / National Museum of Natural Sciences, Madrid (Spain).*
- *Museu de Ciències Naturals (Zoologia) de Barcelona / Natural History (Zoology) Museum of Barcelona (Spain).*
- *Museu Valencià d'Història Natural, Alginet / Valencian Museum of Natural History, Alginet (Spain).*
- *Muséum d'Histoire Naturelle de Genève / Natural History Museum of Geneva (Switzerland).*
- *Naturalis, Nationaal Natuurhistorisch Museum, Leiden / Naturalis, Biodiversity Center, Leiden ([The Netherlands](#)): formerly Rijksmuseum van Natuurlijke Historie"*
- *Rijksmuseum van Natuurlijke Historie, Leiden / National Museum of Natural History, Leiden ([The Netherlands](#)): since 1998 it is known as Naturalis.*
- *Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main / Senckenberg Research Institute and Natural History Museum, Frankfurt (Germany).*

References

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- 1990. Fauna malacológica de Catalunya. Mol·luscs terrestres i d'aigua dolça. *Treballs de la Institució Catalana d'Història Natural*, 12: 1–229.
- 1993. Descripción de nuevas especies para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 2(3): 271–277.
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- Bouchet, Ph., Rocroi, J.-P., Hausdorf, B., Kaim, A., Kano, Y., Nützel, A., Parkhaev, P., Schrödl, M., Strong, E. E., 2017. Revised Classification, Nomenclator and Typification of Gastropod and Monoplacophoran Families. *Malacologia*, 61(1–2):1–526. <https://doi.org/10.4002/040.061.0201>
- Martínez-Ortí, A., Uribe, F., 2008. Los ejemplares tipo de las colecciones malacológicas del Museu de Ciències Naturals de Barcelona y del Museu Valencià d'Història Natural. *Arxius de Miscel·lània Zoològica*, 6: 1–156.

Alphabetical list of taxa

- [*Abida polyodon* f. *lopezi* Bech, 1973](#)
[*Abida secale ionicae* Kokshoorn and Gittenberger, 2010](#)
[*Abida secale margaridae* Bech, 1990](#)
[*Abida secale merijni* Kokshoorn and Gittenberger, 2010](#)
[*Abida secale peteri* Kokshoorn and Gittenberger, 2010](#)
[*Abida secale vilellai* Kokshoorn and Gittenberger, 2010](#)
- [*Bythinella alonsoae* Bech, 1979](#)
[*Bythinella brosi* Bech, 1993](#)
[*Bythinella fernandezi* Bech, 1979](#)
[*Bythinella gonzalezi* Bech, 1993](#)
- [*Candidula mangae* Bech, 2002](#)
[*Chondrina arigonoides* Kokshoorn and Gittenberger, 2010](#)
[*Chondrina ingae* Kokshoorn and Gittenberger, 2010](#)
[*Chondrina marjae* Kokshoorn and Gittenberger, 2010](#)
[*Chondrina pseudavenacea* Kokshoorn and Gittenberger, 2010](#)
[*Clausilia \(Clausilia\) rugosa ramirezi* Bech, 2003](#)
- [*Gasulliella murciana* Bech and Altimiras, 2002](#)
- [*Helicella iberica nivalis* Valledor, 1999](#)
[*Helicella jamuzensis* Gittenberger and Manga, 1977](#)
[*Helicella \(Candidula\) najerensis* Ortiz de Zárate, 1950](#)
[*Helix Aqualatensis* Salvañá, 1887](#)
[*Helix carascalopsis* Fagot, 1884](#)
[*Helix \(Candidula\) caroli scopulicola* Bofill and Aguilar–Amat, 1924](#)
[*Helix conica* var. *Chiai* Caziot, 1905](#)
[*Helix conica* var. *depressa* Caziot, 1905](#)
[*Helix conica* var. *tuberculata* Caziot, 1905](#)
[*Helix montserratensis* var. *delicatula* Bofill, 1898](#)
[*Helix \(Candidula\) ordunensis* Kobelt, 1883](#)
[*Helix vermicalata* var. *Vilassarum* Caziot, 1905](#)
[*Helix Zuluetai* Caziot, 1905](#)
- [*Moitessieria barrinae* Alba, Corbella, Prats, Tarruella and Guillén, 2007](#)
[*Moitessieria collellensis* Corbella, Alba, Tarruella, Prats and Guillén, 2006](#)
[*Moitessieria pasterae* Corbella, Alba, Tarruella, Guillén and Prats, 2009](#)
[*Moitessieria prioratensis* Corbella, Alba, Tarruella, Guillén and Prats, 2009](#)
[*Moitessieria punctata* Alba, Tarruella, Prats, Guillén and Corbella, 2010](#)
- [*Neohoratia herreroi* Bech, 1993](#)
- [*Obelus discogranulatus* Alonso and Groh, 2003](#)
[*Oestophora \(Gasullia\) gasulli* Ortiz de Zárate and Ortiz de Zárate, 1961](#)
[*Orcula \(Sphyradium\) doliolum klemmi* Altimira, 1959](#)
[*Oxychilus \(Ortizius\) francescae* Bech, 1996](#)
- [*Subulona \(Subulona\) anarum* Altimiras and Bech, 2000](#)
- [*Trochoidea escolai* Bech, 1993](#)

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida polyodon f. *lopezi* Bech, 1973 ([back to the Index](#))

Bech, M., 1973. Notas malacológicas. Contribución al conocimiento de la fauna malacológica terrestre y de agua dulce, de Cataluña. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 71: 223–233. [p. 225].

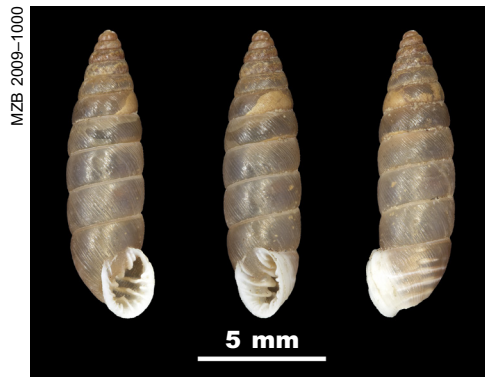
Type locality: "[...] en las faldas de La Tallada, parte baja del barranco de La Hirena y al pie del monte Perpella, localidades ambas pertenecientes a la vertiente oriental de la cuenca del Noguera Ribagorçana [...]"

Toponymic note and update: barranco (= gully) de la Hirena and monte (= mountain) Perpella are located in the basin of the Noguera Ribagorçana river (= Ribagorzana), province of Huesca.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–1000 (loc. tip. "La Hirena. Conca del Noguera Ribagorçana. Canelles", shell, ex col. Bech).

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–1001 (loc. tip. "La Hirena. Canelles (Noguera Ribagorçana)", 48 shells, ex col. Bech).



Types in other museum

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Abida polyodon* (Draparnaud, 1801)

Abida polyodon f. *lopezi* is a junior synonym of *Abida polyodon* (Draparnaud, 1801). At the present time it is impossible to discriminate subspecies from shells only (even worse is the fact that Bech describes it as a form). Nevertheless, future anatomical and/or molecular studies should clarify such subspecific delimitations (the same applies for *Abida secale margaridae*) and possibly modify the proposed taxonomic status.

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida secale ionicae Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

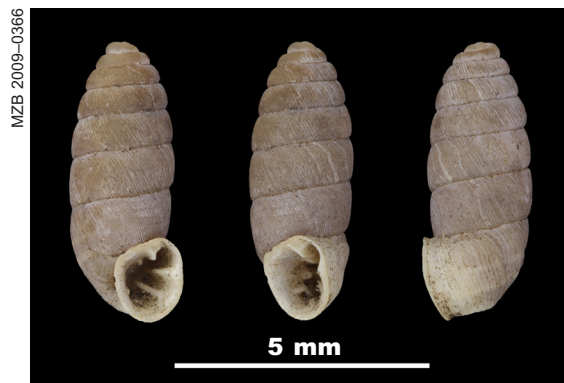
Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 22; pl. 7 fig. D–K].

Type locality: "Andorra [...]: Arinsal (= 8 km NNW of Andorra la Vella), Alt de la Capa mtn (= 2.8 km WSW of Arinsal), 2,500 m alt., 42.56203 °N / 1.45567 °E [...]"; paratypes localities: "Alt de la Capa mtn, 2,350 m alt., 42.56180 °N / 1.45981 °E [...]", "Alt de la Capa mtn, 2,100 m alt. 42.56355 °N / 1.46659 °E [...]", "Pal (= 5.6 km NW of Andorra la Vella), N-side above town, 42.54618 °N / 1.47136 °E [...]", "Pas de la Casa, 2,100 m alt. [...]" and "Pico Mainera mtn [...]".

Toponymic note and update: Alt de la Capa is a mountain summit, Andorra la Vella is the capital of Andorra, Arinsal and Pal are towns in the La Massana parish (Andorra), Pas de la Casa is a town in the Encamp parish (Andorra), and Pico (= Pic de la) Mainera is a mountain in the Lleida Pyrenees (Spain).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0366 (loc. tip. "Arinsal (= 8 km NNW of Andorra la Vella), Alt de la Capa mountain (= 2.8 km WSW of Arinsal), 2,100 m alt.", shell, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109062).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109059.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109060, RMNH 109061, RMNH 109062, RMNH 109063, RMNH 109064 and RMNH 111881.

Museu Valencià d'Història Natural, 2 shells Museu Valencià d'Història Natural, MVHN–2322 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109062).

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida secale margaridae Bech, 1990 ([back to the Index](#))

Bech, M., 1990. Fauna malacològica de Catalunya. Mol·luscs terrestres i d'aigua dolça. *Treballs de la Institució Catalana d'Història Natural*, 12: 1–229. [p. 97; figs. 27, 28B].

Bech, M., 1993. Descripción de *Abida secale margaridae* subsp. nov. y otras aportaciones para la malacofauna de Cataluña. *Iberus*, 11(1): 49–56. [p. 50; figs. 2A, 2B, 2C, 3B].

Type locality: (Bech, 1993): "Carretera al Collado de Toses, entre Das y Urús"; paratype locality: "Alp [...] 31TDG0189 y 31TDG0190 (La Cerdanya)".

Toponymic note and update: Collado (= col) de Toses is an orographic element in the county of La Cerdanya, province of Girona (= Gerona)]; Das, Urús, and Alp are municipalities in La Cerdanya.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0908 (loc. tip. "Carretera al Collado de Toses (entre Das y Urús)...", shell, ex col. Bech). Drawn in Bech (1990) [figs. 27, 28B] and pictures in Bech (1993) [figs. 2A, 2B, 3B].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0909–A (loc. tip. "Chalet d'ICONA, Alp...", 2 shells, ex col. Bech). Pictures in Bech (1993) [fig. 2C].



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Abida secale margaridae* Bech, 1990

Recent molecular studies confirmed the validity of this subspecies just after its redescription from a series of 13 specimens collected in the type locality and surroundings.

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 17; plate 4, figs. F–K].

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida secale merijni Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 22; pl. 7 fig. L–Q].

Type locality: "Spain, Barcelona, Sierra Moixeró [...]: summit of Pedro dels Quatre Batlles mtn (Tossa d'Alp) (= 15 km N of Bagà), 2,530 m alt., 42.31637 °N / 1.88965 °E [...]"; paratype localities: "Cap del Serrat Gran mtn (15 km NE of Bagà), 2,400 m alt., 42.30759 °N / 1.91407 °E [...]; ditto, 2,366 m alt., 42.30759 °N / 1.91407 °E [...]; ditto, 2,326 m alt., 42.32549 °N / 1.90163 °E [...]; ditto, 2,163 m alt., 42.29859 °N / 1.91423 °E [...]."

Toponymic note and update: Pedro dels Quatre Batlles (= Pedró dels Quatre Batlles) is a mountain summit in the Port del Comte massif, Tossa (= Tosa) d'Alp is a mountain in the Sierra (= mountain chain) de Moixeró, and Cap del Serrat Gran is a mountain in the municipality of Bagà, province of Barcelona (all localities belonging to the Catalan pre–Pyrenees).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0367 (loc. tip., 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 104103), MZB 2009–0369 (loc. tip. "Sierra del Cadí, footpath GR–150–1 from Coll de Pal (= 15 km NE of Bagà) to Pedró dels Quatre Batlles mountain, on Cap del Serrat Gran; 2,400 m alt.", 3 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 104101).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109891.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 104081, RMNH 104083, RMNH 104103, RMNH 104104 and RMNH 104105.

Museu Valencià d'Història Natural, 3 shells Museu Valencià d'Història Natural, MVHN–2320 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 104101).

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida secale peteri Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 21; pl. 7 fig. A–C].

Type locality: "Spain, Lérida, Sierra del Cadí, Pedraforca mtn. [...]: 2,300 m alt."; paratype localities: "2,250 m alt. [...]; E-side, c. 50 m below the coll, 2,250 m alt. [...]"

Toponymic note and update: Pedraforca is a mountain in the Sierra (= mountain chain) del Cadí, in the province of Lérida (= Lleida).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0368 (loc. tip., 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 99135).



Types in other museum

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109890.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 54961, RMNH 99135 and RMNH 99136.

Museu Valencià d'Història Natural, 1 shell Museu Valencià d'Història Natural, MVHN–2321 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 99135.

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Abida secale vilellai Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

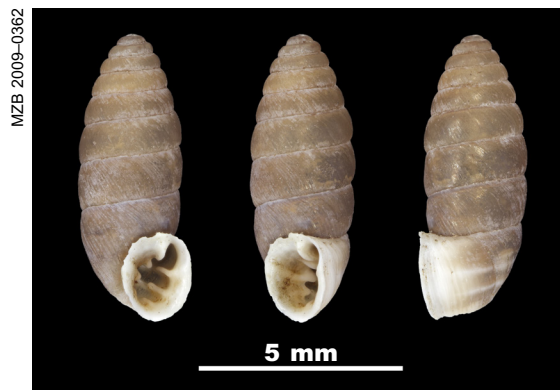
Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 20; pl. 6 fig. M–P].

Type locality: "Spain, Lérida [...]: Sierra del Comte, Port del Comte, S of Tossa Pelada mtn, 2,100 m alt.; paratype locality: "Sierra del Cadí, Torre del Cadí mtn, 2,400 m alt., 42.28387 °N / 1.56363 °E [...]".

Toponymic note and update: Tossa Pelada is a mountain summit in the Sierra (= mountain chain) del Comte, in the Port del Comte massif, province of Lérida (= Lleida). Torre (= Torreta) del Cadí is a mountain summit in the Sierra del Cadí, province of Lleida).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0362 (loc. tip. "Lérida, Sierra del Cadí, Torre del Cadí, 2,400 m alt.", shell, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 99118).



Types in other museum

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109892.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 54960 and RMNH 99118.

Hypsgastropoda, Truncatelloidea, Bythinellidae

Bythinella alonsoae Bech, 1979 ([back to the Index](#))

Bech, M., 1979. Nuevas aportaciones al conocimiento de la fauna malacológica terrestre y de agua dulce de Cataluña. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 77: 157–171. [p. 160; fig. 3].

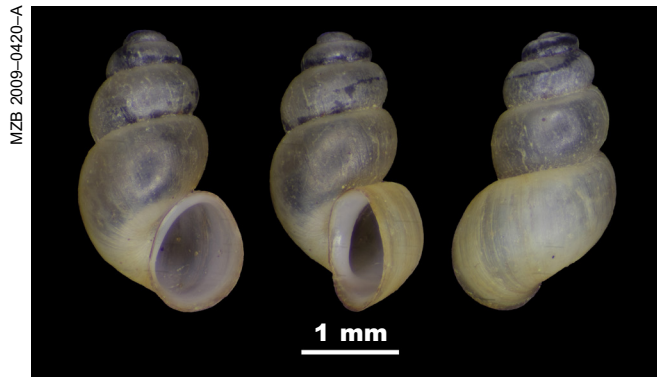
Type locality: "[...] en las fuentes denominadas «Font del Lleó» y «Font de la Mina» [...] en la sierra del Montmell (Tarragona), y perteneciente a la comarca del Baix Penedés [...]".

Toponymic note and update: Font del Lleó and Font de la Mina are springs; Sierra (= mountain chain) del Montmell is in the county of El Baix Penedès, province of Tarragona.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0420–A (loc. tip., shell, ex col. Bech).

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0420–B (loc. tip., 11 shells, ex col. Bech).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Bythinella batalleri* Bofill, 1925

Current work is going to clarify its taxonomic status. It is currently considered a junior synonym of *Bythinella batalleri* Bofill, 1925.

Martínez–Ortí, A., 2011. *Bythinella batalleri*. The IUCN Red List of Threatened Species 2011: e.T156168A4915888, <http://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T156168A4915888.en> [Downloaded on 30 January 2018].

Remarks

Bech (1979) adds a brief description, based on three specimens, of what he considers a variety (without naming) of *B. alonsoae*. Six shells in the Bech collection (MZB 2009–0421) have been identified with the same data collection quoted by Bech (1979).

References

Bech, M., 1979. Nuevas aportaciones al conocimiento de la fauna malacológica terrestre y de agua dulce de Cataluña. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 77: 157–171.

Hypsogastropoda, Truncatelloidea, Bythinellidae

Bythinella brosi Bech, 1993 ([back to the Index](#))

Bech, M., 1993. Descripción de nuevas especies para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 2(3): 271–277. [p. 272; figs. 1, 2–C].

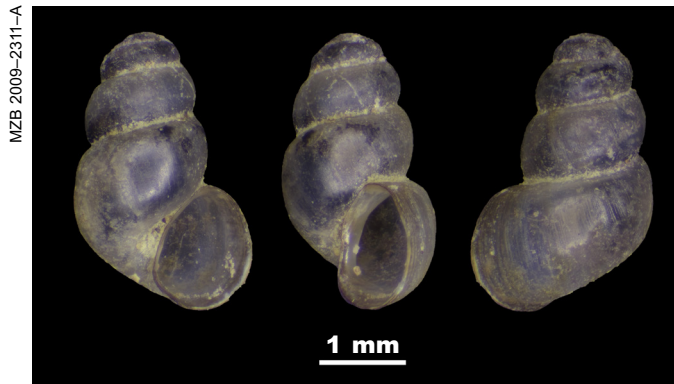
Type locality: "Famorca (Alacant) ... U.T.M. 30SYH3490".

Toponymic note and update: Famorca is a municipality in the province of Alacant (= Alicante).

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2311–A (loc. tip., shell, ex col. Bech). Picture in Bech (1993) [figs. 1, 2–C].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2311–B (loc. tip., 35 shells, ex col. Bech).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Bythinella batalleri* Bofill, 1925

Current work is going to clarify its taxonomic status. It is currently considered a junior synonym of *Bythinella batalleri* Bofill, 1925.

Martínez–Ortí, A., 2011. *Bythinella batalleri*. The IUCN Red List of Threatened Species 2011: e.T156168A4915888, <http://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T156168A4915888.en> [Downloaded on 30 January 2018].

Hypsogastropoda, Truncatelloidea, Bythinellidae

Bythinella fernandezii Bech, 1979 ([back to the Index](#))

Bech, M., 1979. Nuevas aportaciones al conocimiento de la fauna malacológica terrestre y de agua dulce de Cataluña. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 77: 157–171. [p. 159; fig. 2].

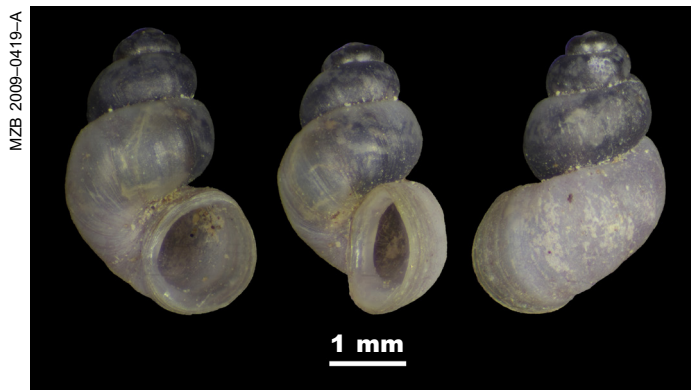
Type locality: "...en la fuente Les Dous, en Torrelles de Foix... perteneciente a la comarca de Garraf (Barcelona)...".

Toponymic note and update: Torrelles de Foix is a municipality in the county of the Alt Penedès, province of Barcelona.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0419–A (loc. tip., shell, ex col. Bech).

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0419–B (loc. tip., 93 shells, ex col. Bech).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Bythinella batalleri* Bofill, 1925

Current work is going to clarify its taxonomic status. It is currently considered a junior synonym of *Bythinella batalleri* Bofill, 1925.

Martínez–Ortí, A., 2011. *Bythinella batalleri*. The IUCN Red List of Threatened Species 2011: e.T156168A4915888, <http://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T156168A4915888.en> [Downloaded on 30 January 2018].

Hypsogastropoda, Truncatelloidea, Bythinellidae

Bythinella gonzalezi Bech, 1993 ([back to the Index](#))

Bech, M., 1993. Descripción de nuevas especies para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 2(3): 271–277. [p. 272; fig. 3].

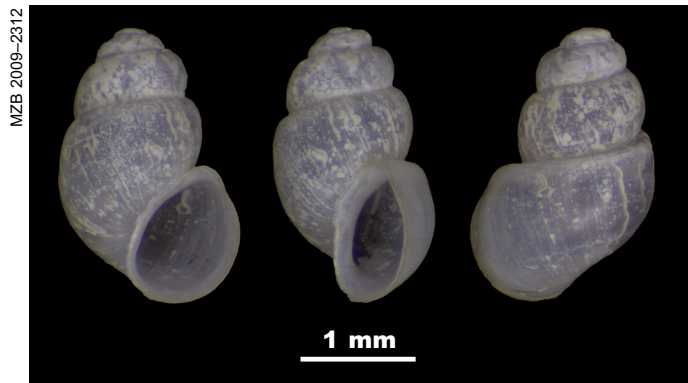
Type locality: "Cueva del Toro. L'Alcudia de Veo (La Plana Baixa) Castelló de la Plana ... U.T.M. 30SYK2323"; paratype locality: "Cueva Covatilla. Aín (La Plana Baixa) Castelló de la Plana [...] U.T.M. 30SYK2323".

Toponymic note and update: Cueva (= cave) del Toro is in the municipality of Alcúdia de Veo (= Alcudia de Veo), in the county of Plana Baixa (= Plana Baja), province of Castelló (= Castellón); Cueva Covatilla is in the municipality of Aín (= Ahín), in the county of the Plana Baixa, province of Castelló.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2312 (loc. tip. "Cueva del Toro", shell, ex col. Bech). Picture in Bech (1993) [fig. 3] and Bech and González (1995) [plate II, fig. 1].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2313 (loc. tip. "Cueva del Toro", 9 shells, ex col. Bech), MZB 2009–2314 (loc. tip. "Cueva Covatilla", 67 shells, ex col. Bech). Three paratypes photographed in Bech and González (1995) [plate II, fig. 1A, 1B, 1C].



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Bythinella batalleri* Bofill, 1925

Work is ongoing to clarify its taxonomic status. It is currently considered a junior synonym of *Bythinella batalleri* Bofill, 1925.

Martínez–Ortí, A., 2011. *Bythinella batalleri*. The IUCN Red List of Threatened Species 2011: e.T156168A4915888, <http://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T156168A4915888.en> [Downloaded on 30 January 2018].

References

Bech, M., González, J. V., 1995. Noves dades per al coneixement de la fauna malacològica present a les coves del País Valencià. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 3(2): 149–167.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Candidula mangae Bech, 2002 ([back to the Index](#))

Bech, M., 2002. Descripción de *Candidula mangae* nov. sp. (Mollusca: Pulmonata: Higromiidae) para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 5(3): 285–288. [fig. 1].

Type locality: "Castrillo del Val (Burgos)".

Toponymic note and update: Castrillo del Val is a municipality in the province of Burgos.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3255 (loc. tip., shell, ex col. Bech). Picture in Bech (2002) [fig. 1].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3256 (loc. tip., 5 shells, ex col. Bech).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Backeljaia* sp.

Chueca, L. J., Gómez–Moliner, B. J., Madeira, M^a J., Pfenninger, M., 2018. Molecular phylogeny of *Candidula* (Geomitridae) land snails inferred from mitochondrial and nuclear markers reveals the polyphyly of the genus. *Molecular Phylogenetics and Evolution*, 118: 357–368, <http://dx.doi.org/10.1016/j.ympev.2017.10.022>

Remarks

Morphological characteristics of holotype are: 4.40 mm diameter, 2.83 mm in height, 4½ turns. The paratypes are juveniles; characteristics of the largest specimen are: 4.34 mm diameter, 2.15 mm high, 3¾ turns. Bech (2002), contrary to the dimensions of the type sample, referred the following data: 11.01 to 11.8 mm in diameter, 5.5–5.7 mm high, 5–5½ turns. Chueca et al. (2018) have described a new genus, *Backeljaia*, to which some Iberian species of

Candidula have been associated: *C. camporroblensis*, *C. corbellai*, *C. gigaxii* and *C. najerensis*. The conchological similarity between *B. mangae* and *B. camporroblensis* (Fez, 1944), and their geographic ranges suggests the synonymy of these two taxons (Martínez–Ortí, 2011). However, in his unpublished PhD, Carlos Prieto (1986) described a new species that should belong to the new genus *Backeljaia* from the province of Burgos; later, Puente and Prieto (1992) and Puente (1994) named this taxa *mangae*, and they outlined its conchological similarity with *Helicella silosensis* (Ortiz de Zárate, 1950). Facing these uncertainties, for the time being we prefer to consider the types of *Candidula mangae* as *Backeljaia* sp.

References

- Bech, M., 2002. Descripción de *Candidula mangae* nov. sp. (Mollusca: Pulmonata: Hygromiidae) para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 5(3): 285–288.
- Martínez–Ortí, A., 2011. A new hygromiid for the Iberian malacofauna: *Candidula corbellai* (Gastropoda, Pulmonata). *Animal Biodiversity and Conservation*, 34.1: 1–10.
- Prieto, C. E., 1986. Estudio sistemático y biogeográfico de los Helicidae sensu Zilch, 1959–60 (Gastropoda: Pulmonata: Stylommatophora) del País Vasco y regiones adyacentes. Unpublished PhD, Universidad del País Vasco. 393 pp. + 10 láms.
- Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp.
- Puente, A., Prieto, C. E., 1992. La Superfamilia Helicoidea (Pulmonata: Stylommatophora) en el norte de la península ibérica: Corología y Sectorización malacogeográfica. *Graellsia*, 48: 133–169.

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Chondrina arigonoides Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 34; pl. 10 fig. E].

Type locality: "Spain, Alicante, SW of Marquesa along path into nature reserve; 170 m alt.; UTM BD4600".

Toponymic note and update: Marquesa is a locality in the municipality of Dénia, close to the Montgó nature reserve, in the province of Alicante.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0364 (loc. tip., 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109862).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109861.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 103233.

Museu Valencià d'Història Natural, 2 shells Museu Valencià d'Història Natural, MVHN–2327 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109862).

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

***Chondrina ingae* Kokshoorn and Gittenberger, 2010 ([back to the Index](#))**

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 35; pl. 12 fig. F].

Type locality: "Spain, Alicante, S of Biar, along road into the Sierra de Biar; 960 m alt.; UTM XH9475".

Toponymic note and update: Sierra (= mountain chain) de Biar; Biar is a municipality in the province of Alicante.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0363 (loc. tip. "Biar (= app. 4.5 km NW of Alicante) rocks near the road from Biar to Siera de Biar, S. of Biar; UTM XH9475; alt.: 961 m.", 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109866).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109865.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 103221.

Museu Valencià d'Història Natural, MVHN–2324 2 shells ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109866).

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Chondrina marjae Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

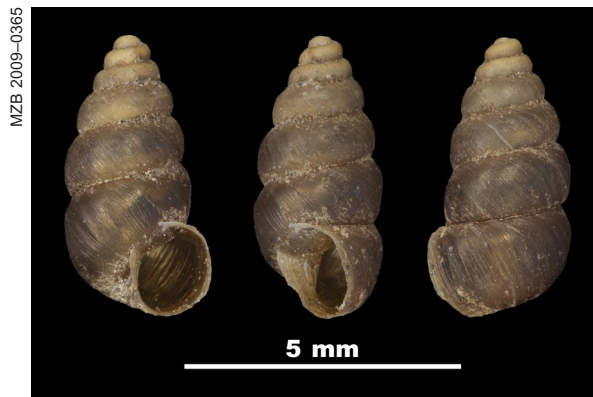
Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: New synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 35; pl. 12 fig. G].

Type locality: "Spain, Valencia, S–side of Xativa; 160 m alt.; UTM YJ1317".

Toponymic note and update: Xativa (= Xàtiva) is a municipality of the province of Valencia (= València).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0365 (loc. tip. "Xàtiva, rocks on S–side of village; UTM YJ1317; alt.; 161 m", 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109864).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109863.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 103250.

2 shells Museu Valencià d'Història Natural, MVHN–2325 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109864).

Eupulmonata, Stylommatophora, Pupilloidea, Chondrinidae

Chondrina pseudavenacea Kokshoorn and Gittenberger, 2010 ([back to the Index](#))

Kokshoorn, B., Gittenberger, E., 2010. Chondrinidae taxonomy revisited: new synonymies, new taxa, and a checklist of species and subspecies (Mollusca: Gastropoda: Pulmonata). *Zootaxa*, 2539: 1–62. [p. 35; pl. 13 fig. H].

Type locality: "Spain, Alicante, 7 km NE of Altea, Barranco de Mascarat, UTM YH6080"; paratype localities: "Morro de Toix, S–side peninsula, c. 250 m alt., UTM BC4079 [...]" and "2 km ESE Callosa de Ensarria, near cascada El Argar, UTM YH5281 [...]"

Toponymic note and update: Altea and Callosa de Ensarria (= Callosa d'en Sarrià) are municipalities in the province of Alicante; Barranco (= gully) de Mascarat, Morro de Toix and cascada (= cascade) El Argar, are geographical features.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0361 (loc. tip., 2 shells, ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 111888).



Types in other museums

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109867.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 109868, RMNH 109869, RMNH 111887 and RMNH111888.

2 shells Museu Valencià d'Història Natural, MVHN–2326 ex col. Rijksmuseum van Natuurlijke Historie, Leiden, RMNH 111888).

Eupulmonata, Stylommatophora, Clausilioidea, Clausiliidae

Clausilia (Clausilia) rugosa ramirezi Bech, 2003 ([back to the Index](#))

Bech, M., 2003. Descripción de *Clausilia (Clausilia) rugosa ramirezi* nov. ssp. (Gastropoda, Pulmonata, Clausiliidae), para la fauna de Cataluña. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 6(1): 85–89. [fig. 1].

Type locality: "...Sant Martí de Llémana (La Garrotxa, Cataluña)".

Toponymic note and update: Sant Martí de Llémana is a municipality in the county of Gironès, province of Girona (= Gerona).

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–1360 (loc. tip., shell, ex col. Bech). Picture in Bech (2003) [fig. 1].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–1361 (loc. tip., 6 shells, ex col. Bech).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Clausilia (Clausilia) rugosa ramirezi* Bech, 2003

Pending further work that could clarify its taxonomic status, we do not propose any change on the original nomenclature.

Eupulmonata, Stylommatophora, Helicoidea, Trissexodontidae, Trissexodontinae

Gasulliella murciana Bech and Altimiras, 2002 ([back to the Index](#))

Bech, M., Altimiras, J., 2002. Nuevas aportaciones a la fauna malacológica de Águilas (Murcia), con la descripción de una nueva especie. *Geociències*, 8: 4–6. [p. 5; fig. 2a, 2b].

Type locality: "Alrededores de la estación RENFE de Murcia".

Toponymic note and update: around the railway station [Murcia is a municipality in the province of the same name].

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3496 (loc. tip., shell, ex col. Bech).



Types in other museums

Paralectotype: malacological collection in the Facultad de Biología, Universidad del País Vasco (loc. tip., shell, ex col. Bech).

Current systematic position: *Hatumia cobosi* (Ortiz de Zárate, 1962)

Arrébola, J. R., Prieto, C. E., Puente, A. I., Ruiz, A., 2006. *Hatumia*, a new genus for *Oestophora riffensis* Ortiz de Zárate, 1962, *Oestophora cobosi* Ortiz de Zárate, 1962 and *Hatumia pseudogasulli* n. sp. (Pulmonata: Helicoidea: Trissexodontidae). *Journal of Conchology*, 39(2): 119–134. [p. 128].

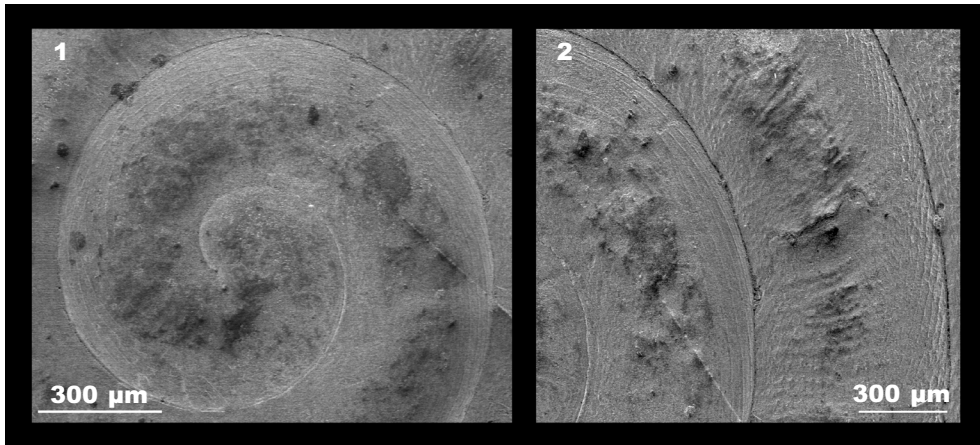
Gómez–Moliner, B. J., Elejalde, A. M., Arrébola, J. R., Puente, A. I., Martínez–Ortí, A., Ruiz, A., Madeira, M. J., 2012. Molecular phylogeny of the Helicodontidae and Trissexodontidae (Gastropoda). *Zoologica Scripta*, 42(3): 170–181.

Remarks

The whereabouts of the photographed specimen in the original publication (replicated in Bech and Altimiras, 2003) are unknown. A specimen from Águilas, province of Murcia (MZB 2009–3497), collected and also determined as *Gasulliella murciana* by the same authors, shows an ornamentation very close to *Hatumia cobosi* (figs. 1–2).

References

Bech, M., Altimiras, J., 2003. Datos complementarios sobre el nuevo gasteropodo terrestre fósil recogido en Aguilas (Murcia). *Butlletí del Centre d'Estudis de la Natura del Barcelonès-Nord*, 6(1): 45-46.



Figs. 1–2. Ornamentation of a shell of *G. murciana* MZB 2009–3497: 1, protoconch; 2, microsculpture of the protoconch and teleoconch (scale = 300 µm). The habitual coat with gold–palladium was not used in order not to alter the characteristics of the shell.

Figs. 1–2. Ornamento de un caparazón de G. murciana MZB 2009–3497: 1, protoconcha; 2, microescultura de la protoconcha y la teleoconcha (escala = 300 µm). No se ha empleado el habitual recubrimiento con oro–paladio para no alterar las características del caparazón.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helicella iberica nivalis Valledor, 1999 ([back to the Index](#))

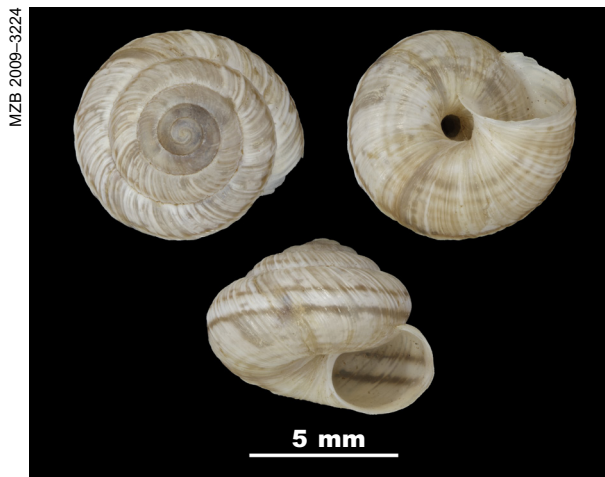
Valledor, A., 1999. Una nueva forma de alta montaña de *Helicella iberica* (Gastropoda, Pulmonata, Hygromiidae). *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 4(3): 319–321. [fig. in page 321].

Type locality: "Collado del Alano Espelunga, Valle de Ansó, Huesca. Altitud 2.010 m" y "Umbral superior del Ibón de Plan, Valle de Gistaín, Huesca. Altitud 1.970 m".

Toponymic note and update: Collado (= col) de Alano Espelunga; valle (= valley) de Ansó; Ibón de Plan [in local language "ibón" means lake placed on high mountains]; Plan is a municipality in the province of Huesca; Valle de Gistaín (= Gistau).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3224 (loc. tip. "Alano Espelunga (2010 m) Huesca", 6 shells, ex col. Bech).



Types in other museums

Holotype: Museo Nacional de Ciencias Naturales, Madrid, 15.05/46966.

Paratypes: one paratype in the author's collection.

Current systematic position: *Helicella iberica* (Rambur, 1869)

Helicella iberica nivalis Valledor, 1999 is a junior synonym of *Helicella iberica* (Rambur, 1869).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 419].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helicella jamuzensis Gittenberger and Manga, 1977 ([back to the Index](#))

Gittenberger, E., Manga, M. Y., 1977. Some new species of the genus *Helicella* (Pulmonata, Helicidae) from the province León, Spain. *Zoologische Mededelingen*, 51(11): 177–189. [p. 181; plate 2, figs. 1, 2, 8, 9].

Type locality: "Santa Elena de Jamuz"; paratype localities: "Alija del Infantado, 18 km SSE of La Bañeza", and "Villanueva de Jamuz, 8 km SSE of La Bañeza".

Toponymic note and update: Santa Elena de Jamuz, Alija del Infantado, and La Bañeza are municipalities in the province of León; Villanueva de Jamuz is an inhabited locality in the municipality of Santa Elena de Jamuz.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3189 (loc. tip. "Alija del Infantado" 4 shells, ex col. Bech).



Types in other museums

Holotype: Naturalis, Nationaal Natuurhistorisch Museum, Leiden, 55142 (shell) + 878 (genitalia).

Paratypes: Naturalis, Nationaal Natuurhistorisch Museum, Leiden, 55143 (4 shells) + 879a–b (genitalias) + 880a (radula); 55144 (shell) + 881 (genitalia); 9042 (5 specimens).

Laboratorio de Parasitología, Facultad de Veterinaria y Biología, Universidad de León (16 specimens).

Current systematic position: *Helicella jamuzensis* Gittenberger and Manga, 1977

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 439].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helicella (Candidula) najerensis Ortiz de Zárate, 1950 ([back to the Index](#))

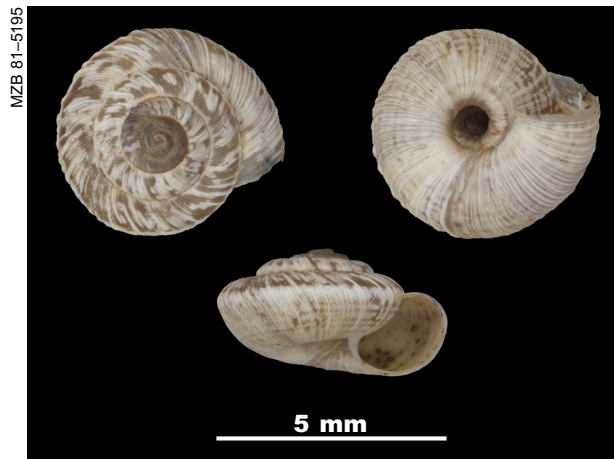
Ortiz de Zárate, A., 1950. Observaciones anatómicas y posición sistemática de varios helícidos españoles. III. *Boletín de la Real Sociedad Española de Historia Natural*, 48(1): 21–85. [p. 29; plate 1, figs. 3–5].

Type locality: "Nájera: colinas de la margen izquierda del río Najerilla".

Toponymic note and update: Nájera is a municipality in the La Rioja region.

Types

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 81–5195 (loc. tip. "Nájera, colinas al oeste del pueblo", 3 shells).



Types in other museums

Lectotype: Museo Nacional de Ciencias Naturales, Madrid, 15.05/23693.

Paralectotypes: Museo Nacional de Ciencias Naturales, Madrid (27 paralectotypes). Museu Valencià d'Història Natural, MVHN 608 (loc. tip., 11 shells, ex col. Ortiz de Zárate)

Current systematic position: *Backeljaia najerensis* (Ortiz de Zárate, 1950).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 369].

Remarks

The first list of types of this taxon (Martínez–Ortí and Uribe, 2008) did not include any sample from the Museum of Barcelona. Chueca et al. (2018) have described a new genus, *Backeljaia*, to which some Iberian species of *Candidula* have been associated; one of these being *C. najerensis*.

References

- Chueca, L. J., Gómez–Moliner, B. J., Madeira, M^a J., Pfenninger, M., 2018. Molecular phylogeny of *Candidula* (Geomitridae) land snails inferred from mitochondrial and nuclear markers reveals the polyphyly of the genus. *Molecular Phylogenetics and Evolution*, 118: 357–368, <http://dx.doi.org/10.1016/j.ympev.2017.10.022>
- Martínez–Ortí, A., Uribe, F., 2008. Los ejemplares tipo de las colecciones malacològicas del Museu de Ciències Naturals de Barcelona y del Museu Valencià d’Història Natural. *Arxius de Miscel·lània Zoològica*, 6: 1–156.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix Aqualatensis Salvañá, 1887 ([back to the Index](#))

Salvañá, J. M., 1887. Moluscos nuevos de España. *Crónica Científica de Barcelona*, 10: 137–142. [p. 137].

Type locality: "Igalada, provincia de Barcelona...".

Toponymic note and update: Igalada is a municipality in the province of Barcelona.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 80–9542–A (loc. tip., shell, ex col. Aguilar–Amat).

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 80–9542–B (loc. tip., 2 shells, ex col. Aguilar–Amat).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Cernuella virgata* (Da Costa, 1778)

Helix Aqualatensis Salvañá is a junior synonym of *Cernuella virgata* (Da Costa, 1778).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 510].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

***Helix carascalopsis* Fagot, 1884** ([back to the Index](#))

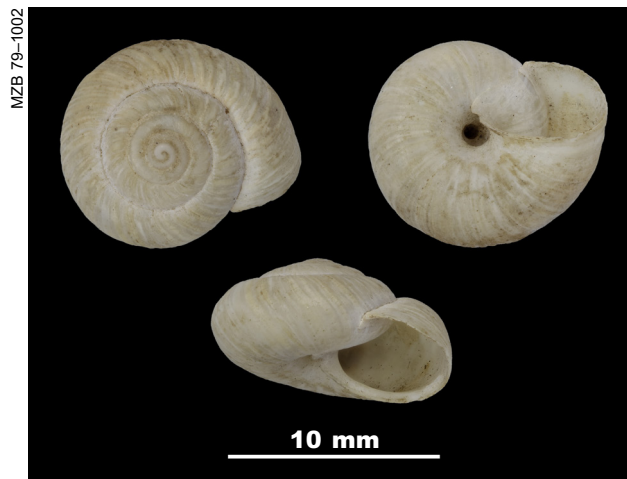
Fagot, P., 1884. Contribution a la faune malacologique de la Catalogne. *Annales de Malacologie*, 2: 169–194. [p. 178].

Type locality: "Port de Salau, sur les deus versants français et espagnol, à 2000 mètres d'altitude environ".

Toponymic note and update: Port de Salau, a mountain pass in the Pyrenees, between the province of Lleida (= Lérída) in Spain and the department of Ariège, France.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 79–1002 (loc. tip., shell, ex col. Bofill).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Pyrenaearia carascalopsis* (Fagot, 1884)

Elejalde, M. A., Madeira, M. J., Prieto, C. E., Backeljau, T., Gómez–Moliner, B. J., 2009. Molecular phylogeny, taxonomy, and evolution of the land snail genus *Pyrenaearia* (Gastropoda, Helicoidea). *American Malacological Bulletin*, 27(1–2): 69–81.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix (Candidula) caroli scopulicola Bofill and Aguilar–Amat, 1924 ([back to the Index](#))

Bofill, A., Aguilar–Amat, J. B. d', 1924. Malacologia de les Illes Pitiuses. *Trabajos del Museo de Ciencias Naturales de Barcelona*, 10(3): 1–71. [p. 20; plate I, fig. 5].

Type locality: "illes Bledes (illa Plana)".

Toponymic note and update: Bleda Na Plana Island, near Eivissa (= Ibiza) Island, Balearic Islands.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 81–5004A (loc. tip., shell).

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 81–5004B (loc. tip., 17 shells), MZB 81–5057 (loc. tip. "illes Bledes, illa Plana, el Frare", 2 shells).



Current systematic position: *Xerocrassa caroli scopulicola* (Bofill y Aguilar–Amat, 1924)

Chueca L. J., Gómez–Moliner B. J., Forés M., Madeira M. J. 2017. Biogeography and radiation of the land snail genus *Xerocrassa* (Geomitridae) in the Balearic Islands. *Journal of Biogeography*, 44: 760–772.

Chueca, L. J., Forés, M., Gómez–Moliner, B. J., 2017. Actualización taxonómica y nomenclatural de las especies de *Xerocrassa* (Gastropoda: Geomitridae) endémicas de Baleares. *Iberus*, 35(2): 159–184.

Remarks

The first list of types of this taxon (Martínez–Ortí and Uribe, 2008) has been updated with the information on the paralectotypes MZB 81–5057.

References

Martínez–Ortí, A., Uribe, F., 2008. Los ejemplares tipo de las colecciones malacològicas del Museu de Ciències Naturals de Barcelona y del Museu Valencià d'Història Natural. *Arxius de Miscel·lània Zoològica*, 6: 1–156.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix conica var. *Chiai* Caziot, 1905 ([back to the Index](#))

Caziot, E., 1905. Contribution a la faune malacologique de la Catalogne. Etude sus quelques Helix. *Butlletí de la Institució Catalana d'Història Natural*, 5(6): 88–93. [p. 93].

Type locality: "...environs de Gerone".

Toponymic note and update: around Girona, municipality of the province of Girona (= Gerona).

Types

Syntypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 79–1155–A (loc. tip. "Dehesa de Gerona", shell, ex col. Aguilar–Amat), MZB 79–1155–B (loc. tip. "Dehesa de Gerona", 20 shells, ex col. Aguilar–Amat).



Types in other museums

The Caziot collection is scattered around several museums in France, and some type specimens are missing. The number of specimens in the original typical series is thus unknown.

Current systematic position: *Trochoidea trochoides* (Poiret, 1789)

Helix conica var. *Chiai* Caziot, 1905 is a junior synonym of *Trochoidea trochoides* (Poiret, 1789).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 156].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix conica var. *depressa* Caziot, 1905 ([back to the Index](#))

Caziot, E., 1905. Contribution a la faune malacologique de la Catalogne. Etude sus quelques Helix. *Butlletí de la Institució Catalana d'Història Natural*, 5(6): 88–93. [p. 93].

Type locality: "...aux environs de l' Arsenal Civil de Barcelone".

Toponymic note and update: Arsenal Civil, in the city of Barcelona, were a set of old factory buildings located in the Can Tunis borough (= Casa Antúnez), on the shores of the Llobregat river, near the port of Barcelona.

Types

Syntypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 79–1153–A (loc. tip., shell, ex col. Chía), MZB 79–1153–B (loc. tip., shell, ex col. Chía).



Types in other museums

The Caziot collection is scattered around several museums in France, and type some specimens are missing. The number of specimens in the original typical series is thus unknown.

Current systematic position: *Trochoidea trochoides* (Poiret, 1789)

Helix conica var. *depressa* Caziot, 1905 is a junior synonym of *Trochoidea trochoides* (Poiret, 1789).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 156].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix conica var. *tuberculata* Caziot, 1905 ([back to the Index](#))

Caziot, E., 1905. Contribution a la faune malacologique de la Catalogne. Etude sus quelques Helix. *Butlletí de la Institució Catalana d'Història Natural*, 5(6): 88–93. [p. 93].

Type locality: "...aux environs de l' Arsenal Civil de Barcelone".

Toponymic note and update: Arsenal Civil, in the city of Barcelona, was a group of old factory buildings in the Can Tunis borough (= Casa Antúnez), on the shores of the Llobregat river, near the port of Barcelona.

Types

Syntypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 79–1165–A (loc. tip. "Casa Antunez", shell, ex col. Aguilar–Amat), MZB 79–1165–B (loc. tip. "Casa Antunez", shell, ex col. Aguilar–Amat).



Types in other museums

The Caziot collection is scattered around different museums in France, and type specimens are missing. Therefore, the number of specimens in the original typical series is unknown.

Current systematic position: *Trochoidea trochoides* (Poiret, 1789)

Helix conica var. *tuberculata* Caziot, 1905 is a junior synonym of *Trochoidea trochoides* (Poiret, 1789).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 156].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix montserratensis var. *delicatula* Bofill, 1898 ([back to the Index](#))

Bofill, A., 1898. «La *Helix montserratensis*». Su origen y su distribución en el tiempo y en el espacio. *Memorias de la Real Academia de Ciencias y Artes de Barcelona*, 2: 331–343. [p. 339].

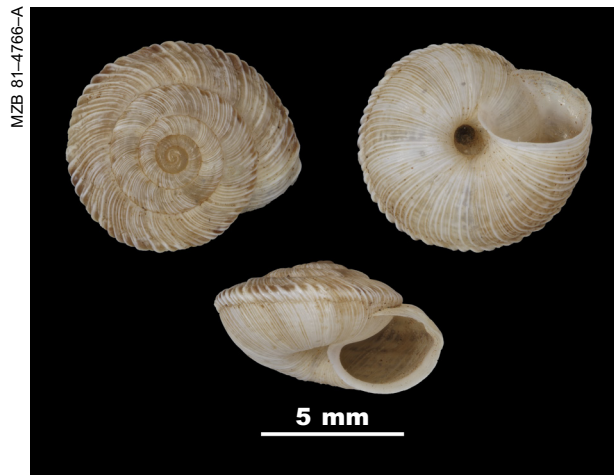
Type locality: "«La Mata», de Sant Llorens del Munt".

Toponymic note and update: Sant Llorenç del Munt is a largely rocky mountain massif in the province of Barcelona.

Types

Lectotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 81–4766–A (loc. tip. "San Llorens del Munt, de «La Mata» á la cima", shell, ex col. Bofill).

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 80–4766–B, MZB 80–4766–C, MZB 80–4766–D y MZB 80–4766–E (loc. tip. "San Llorens del Munt, de «La Mata» á la cima", 4 shells, ex col. Bofill).



Types in other museums

There is no record of the existence of types for this taxon in other centers.

Current systematic position: *Xerocrassa montserratensis* (Hidalgo 1870)

Helix montserratensis var. *delicatula* Bofill, 1898 is a junior synonym of *Xerocrassa montserratensis* (Hidalgo 1870).

Martínez–Ortí, A., Bros, V., 2017. Taxonomic clarification of three taxa of Iberian geomitrids, *Helix montserratensis* Hidalgo, 1870 and subspecies (Gastropoda, Pulmonata), based on morpho–anatomical data. *Animal Biodiversity and Conservation*, 40(2): 247–267.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix (Candidula) ordunensis Kobelt, 1883 ([back to the Index](#))

Kobelt, W., 1883. Diagnosen neuer Arten. *Malakozoologischen Gessellschaft*, 7(8): 113–115. [p. 115].

Type locality: "...prope Orduña, Biscayae".

Toponymic note and update: near Orduña, a municipality in the province of Biscay (= Vizcaya).

Types

Paralectotypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 81–5208 (loc. tip., 3 shells).



Types in other museums

Lectotype: Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main, Orig. Icon. 542 = SMF 10109.

Paralectotypes: Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main, SMF 10110/24 (24 shells), SMF 97215/5 (5 shells).

Current systematic position: *Helicella ordunensis* (Kobelt, 1883).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 453].

Eupulmonata, Stylommatophora, Helicoidea, Helicidae, Helicinae

Helix vermiculata var. *Vilassarum* Caziot, 1905 ([back to the Index](#))

Caziot, E., 1905. Contribution a la faune malacologique de la Catalogne. Etude sus quelques Helix. *Butlletí de la Institució Catalana d'Història Natural*, 5(6): 88–93. [p. 90; fig. 3].

Type locality: "...Vilassar de Mar...".

Toponymic note and update: Vilassar de Mar is a municipality in the province of Barcelona.

Types

Syntype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 79–4124 (loc. tip., shell, ex col. Aguilar–Amat).



Types in other museums

The Caziot collection is scattered around different museums in France, and type specimens are missing. Therefore, the number of specimens of the original typical series is unknown.

Current systematic position: *Eobania vermiculata* (O. F. Müller, 1774)

Helix vermiculata var. *Vilassarum* Caziot, 1905 is a junior synonym of *Eobania vermiculata* (O. F. Müller, 1774).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 731].

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Helix Zuluetai Caziot, 1905 ([back to the Index](#))

Caziot, E., 1905. Contribution a la faune malacologique de la Catalogne. Etude sus quelques Helix. *Butlletí de la Institució Catalana d'Història Natural*, 5(6): 88–93. [p. 89; fig. 1].

Type locality: "...dans les environs de Vilassar de Mar (province de Barcelona)...".

Toponymic note and update: around Vilassar de Mar, a municipality in the province of Barcelona.

Types

Syntype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 80–9759 (loc. tip., shell, ex col. Aguilar–Amat).



Types in other museums

The Caziot collection is scattered around different museums in France, and type specimens are missing. Therefore, the number of specimens of the original typical series is unknown.

Current systematic position: *Cernuella virgata* (Da Costa, 1778)

Helix Zuluetai Caziot, 1905 is a junior synonym of *Cernuella virgata* (Da Costa, 1778).

Puente, A. I., 1994. Estudio taxonómico y biogeográfico de la superfamilia Helicoidea Rafinesque, 1815 (Gastropoda: Pulmonata: Stylommatophora) de la Península Ibérica e Islas Baleares. Unpublished PhD, Universidad del País Vasco. 1037 pp. [p. 510].

Hypsogastropoda, Truncatelloidea, Moitessieriidae

***Moitessieria barrinae* Alba, Corbella, Prats, Tarruella and Guillén, 2007** ([back to the Index](#))

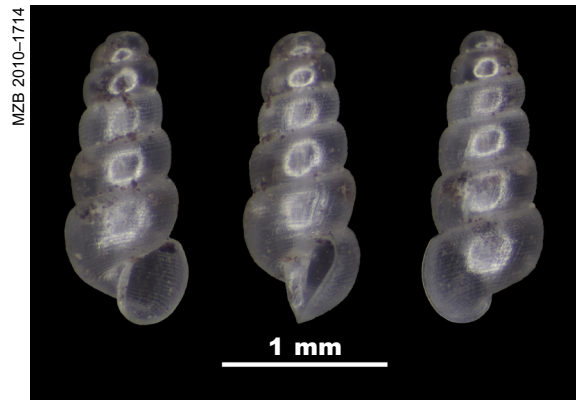
Alba, D. M., Corbella, J., Prats, Ll., Tarruella, A., Guillén, G., 2007. Una nova espècie del gènere *Moitessieria* Bourguignat, 1863 (Neotaenioglossa: Rissooidea: Moitessieriidae) de la Font de la Barrinà (Horta de Sant Joan, la Terra Alta, Catalunya, Espanya). *Spira*, 2(3): 127–137. [figs. 1–5].

Type locality: "Font de la Barrinà [UTM 31T BF7327] (terme municipal d'Horta de Sant Joan, comarca de la Terra Alta), situada als Estrets de Quiquet en el massís del Port ... a uns 550 m d'alçada".

Toponymic note and update: Font (= spring) de Barrinà, Horta de Sant Joan, a municipality in the county of the Terra Alta, province of Tarragona; massís (= mountain massif) dels Ports.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2010–1714 (loc. tip., 2 shells, ex col. Corbella).



Types in other museums

Holotype: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, CRBA447.

Paratypes: in the private collections of the authors.

Hypsogastropoda, Truncatelloidea, Moitessieriidae

***Moitessieria collellensis* Corbella, Alba, Tarruella, Prats and Guillén, 2006**

([back to the Index](#))

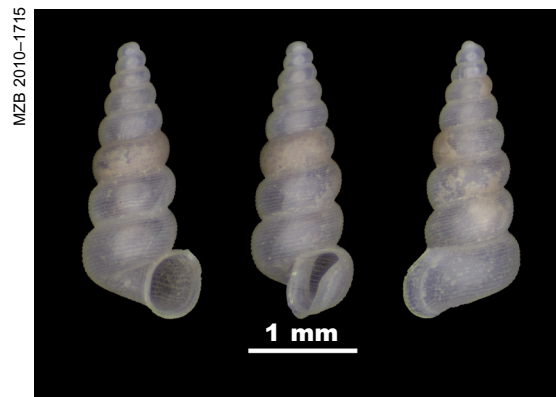
Corbella Alonso, J., Alba, D. M., Tarruella Ruestes, A., Prats Pi, Ll., Guillén Mestre, G., 2006. Dues noves espècies del gènere *Moitessieria* Bourguignat, 1863 (Neotaenioglossa: Rissooidea: Moitessieriidae) de la Font d'en Collell (Albanyà, l'Alt Empordà, Catalunya, Espanya). *Spira*, 2(2): 71–111. [p. 76–78, 83–87; figs. 1, 3–7].

Type locality: "Font d'en Collell [UTM 31TDG7584] (Albanyà, Alt Empordà)".

Toponymic note and update: Font (= spring) d'en Colell, in Albanyà, a municipality in the county of the Alt Empordà, province of Girona (= Gerona).

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2010–1715 (loc. tip., 12 shells).



Types in other museums

Holotype: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, CRBA338.

Paratypes: in the private collections of authors.

Hypsogastropoda, Truncatelloidea, Moitessieriidae

***Moitessieria pasterae* Corbella, Alba, Tarruella, Guillén and Prats, 2009** ([back to the Index](#))

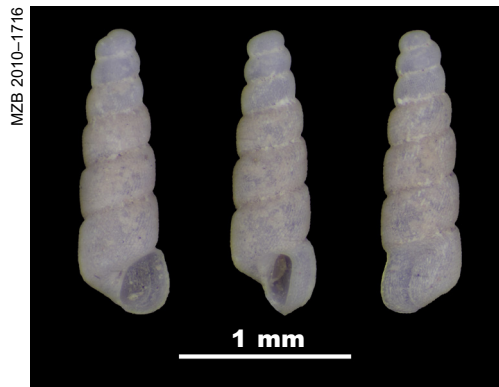
Corbella, J., Alba, D. M., Tarruella, A., Guillén, G., Prats, Ll., 2009. Noves espècies de *Moitessieria* Bourguignat, 1863 (Neotaenioglossa: Rissooidea: Moitessieriidae) de la Font del Racó de la Pastera (Ulldemolins, el Priorat, Catalunya, Espanya). *Spira*, 3(1): 59–86. [p. 65–66, 71; figs. 5–6, 10–14].

Type locality: "Font del Racó de la Pastera (Ulldemolins, el Priorat) [31T CF1976], 510 m".

Toponymic note and update: Font (= spring) del Racó de la Pastera, Ulldemolins, a municipality in the county of the Priorat, province of Tarragona.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2010–1716 (loc. tip., 2 shells, ex col. Corbella).



Types in other museums

Holotype: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, CRBA3687.

Paratypes: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, (1 paratype, CRBA3688) + in the private collections of authors.

Hypsogastropoda, Truncatelloidea, Moitessieriidae

***Moitessieria prioratensis* Corbella, Alba, Tarruella, Guillén and Prats, 2009**
([back to the Index](#))

Corbella, J., Alba, D. M., Tarruella, A., Guillén, G., Prats, Ll., 2009. Noves espècies de *Moitessieria* Bourguignat, 1863 (Neotaenioglossa: Risssooidea: Moitessieriidae) de la Font del Racó de la Pastera (Ulldemolins, el Priorat, Catalunya, Espanya). *Spira*, 3(1): 59–86. [p. 60–65, 70–71; figs. 1–4, 10–14].

Type locality: "Font del Racó de la Pastera (Ulldemolins, el Priorat) [31T CF1976], 510 m".

Toponymic note and update: Font (= spring) del Racó de la Pastera, in Ulldemolins, a municipality in the county of the Priorat, province of Tarragona.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2010–1717 (loc. tip., 2 shells, ex col. Corbella).



Types in other museums

Holotype: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, CRBA3685.

Paratypes: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona (1 paratype, CRBA3686) + in the private collections of authors.

Hypsogastropoda, Truncatelloidea, Moitessieriidae

***Moitessieria punctata* Alba, Tarruella, Prats, Guillén and Corbella, 2010** ([back to the Index](#))

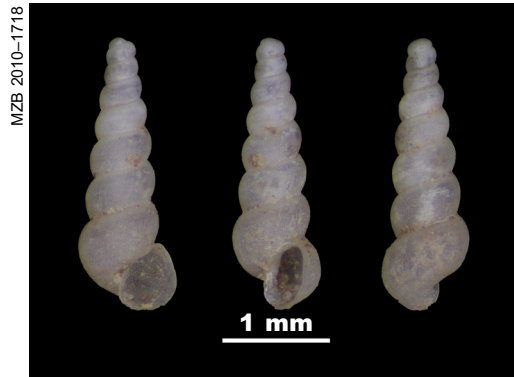
Alba, D. M., Tarruella, A., Prats, Ll., Guillén, G., Corbella, J., 2010. Els moitessièrids (Gastropoda: Moitessieriidae) de Rellinars (el Vallès Occidental, Catalunya, Espanya). *Spira*, 3(3–4): 159–186. [p. 160–165; figs. 1–6].

Type locality: "Les Fonts de Rellinars (Rellinars, el Vallès Occidental) [31T DG1010], 350 m".

Toponymic note and update: Les Fonts (= springs) de Rellinars, a municipality in the county of the Vallès Occidental, province of Barcelona.

Types

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2010–1718 (loc. tip., 2 shells, ex col. Corbella).



Types in other museums

Holotype: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona, CRBA4261.

Paratypes: Centre de Recursos de Biodiversitat Animal de la Facultat de Biologia, Universitat de Barcelona (2 paratypes, CRBA4262, 4263) + in the private collections of authors.

Hypsogastropoda, Truncatelloidea, Hydrobiidae, Pseudamnicolinae

Neohoratia herreroi Bech, 1993 ([back to the Index](#))

Bech, M., 1993. Descripción de nuevas especies para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 2(3): 271–277. [p. 272; fig. 4].

Type locality: "Cueva Sant Josep. La Vall d'Uxó (Castelló de la Plana) ... U.T.M. 30SYK3412".

Toponymic note and update: Cova de Sant Josep is a cave in the municipality of La Vall d'Uixó (= Vall de Uxó), province of Castelló (= Castellón).

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2302 (loc. tip., shell, ex col. Bech). Picture in Bech (1993) [fig. 4] and Bech and González (1995) [plate II, fig. 2].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–2303 (loc. tip., 10 shells, ex col. Bech). Three paratypes photographed in Bech and González (1995) [plate II, figs. 2A, 1B, 1C].



Types in other museums

Paratypes: Museu Valencià d'Història Natural, Alginet, Spain (3 paratypes, MVHN–030315SD01).

Current systematic position: *Corrosella herreroi* (Bech, 1993)

Martínez–Ortí, A., in pres. Taxonomic revision of *Neohoratia herreroi* Bech, 1993 (Gastropoda: Hydrobiidae). *Basteria*.

Remarks

The holotype (MZB 2009–2302) was originally associated with a red label, without explicit indication of its type status. On the contrary, 12 specimens of the original type series were linked to a white label where it reads "paratipus". Two of these specimens, erroneously attributed by Bech to *N. herreroi*, have been reassigned to the genus *Mercuria* and excluded from the type series with the code MZB 2009–2303–B (Martínez–Ortí, in press). The specimens now deposited at the Museu Valencià d'Història Natural belong to the original sample, and remain in the private collection of the collector, Dr. J. J. Herrero–Borgoñón

Pérez. These specimens have been considered as paratypes according to article 72.4.1.1 of the ICZN (1999) (Martínez–Ortí, in press).

References

- Bech, M., González, J. V., 1995. Noves dades per al coneixement de la fauna malacològica present a les coves del País Valencià. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 3(2): 149–167.
- International Commission on Zoological Nomenclature, 1999. *International Code of Zoological Nomenclature*. Fourth Edition adopted by the International Union of Biological Sciences. The International Trust for Zoological Nomenclature, London.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Geomitrinae

Obelus discogranulatus Alonso and Groh, 2003 ([back to the Index](#))

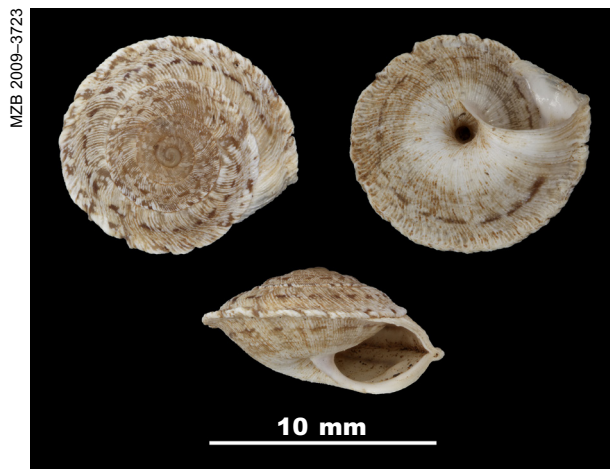
Ibáñez, M., Alonso, M. R., Groh, K., Hutterer, R., 2003. The Genus *Obelus* Hartmann, 1842 (Gastropoda, Pulmonata, Helicoidea) and its Phylogenetic Relationships. *Zoologischer Anzeiger*, 242: 157–167. [p. 165; figs. 2D, 3F–H].

Type locality: "Degollada de los Canarios, Jandia Peninsula, Fuerteventura (UTM: 28RES6510, 350 m)".

Toponymic note and update: Degollada (in the Canary Islands, a "degollada" means a col de los Canarios; Jandia Peninsula (= Península de Jandia), at the Southwest of Fuerteventura Island.

Types

Paratypes: Museo de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3723 (loc. tip. "Valle Los Canarios, Fuerteventura (I. Canarias)", 2 shells, ex col. Bech).



Types in other museums

Holotype: Museo de Ciencias Naturales de Tenerife, TFMC MT 0379 (loc. tip., shell). Photographed in Ibáñez et al. (2003) [fig. 2D].

Paratypes: Alonso and Ibáñez collection, Departamento de Biología Animal, Universidad de la Laguna, Tenerife (4 whole animals and 190 shells). Private collection K. Groh, Hackenheim, Germany (3 shells). Private collection R. Hutterer, Bonn, Germany (3 shells). Museo de Ciencias Naturales de Tenerife, TFMC MT 0380 (shell).

Eupulmonata, Stylommatophora, Helicoidea, Trissexodontidae, Trissexodontinae

***Oestophora (Gasullia) gasulli* Ortiz de Zárate and Ortiz de Zárate, 1961** ([back to the Index](#))

Ortiz de Zárate, A., Ortiz de Zárate, A., 1961. Moluscos terrestres recogidos en la provincia de Huelva. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 59: 169–190. [p. 178; fig. 4].

Type locality: "Valverde del Camino".

Toponymic note and update: Puebla de Guzmán and Valverde del Camino are municipalities in the province of Huelva.

Types

Paratype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 84–8457 ("Puebla de Guzmán", shell, ex col. Gasull).



Types in other museums

Holotype: Museo de Ciencias Naturales, Madrid, 15.05/27673.

Paratype: Museo de Ciencias Naturales, Madrid, 15.05/27674.

Current systematic position: *Gasullia gasulli* (Ortiz de Zárate and Ortiz de Zárate, 1961).

Arrébola, J. R., Prieto, C. E., Puente, A. I., Ruiz, A., 2006. *Hatumia*, a new genus for *Oestophora riffensis* Ortiz de Zárate, 1962, *Oestophora cobosi* Ortiz de Zárate, 1962 and *Hatumia pseudogasulli* n. sp. (Pulmonata: Helicoidea: Trissexodontidae). *Journal of Conchology*, 39(2): 119–134. [p. 121].

Remarks

In the paper by Ortiz de Zárate and Ortiz de Zárate (1961) they only mentioned one paratype specimen held in their collection. Nevertheless, the specimen housed in the Gasull collection must be considered a valid paratype since it was part of the sample studied by the authors for describing the taxon. On the label, handwritten by Ortiz de Zárate, the word "paratipo" is of note. These specimens should be considered paratypes according to article 72.4.1.1 of the ICZN (1999).

References

International Commission on Zoological Nomenclature, 1999. *International Code of Zoological Nomenclature*. Fourth Edition adopted by the International Union of Biological Sciences. The International Trust for Zoological Nomenclature, London.

Ortiz de Zárate, A., Ortiz de Zárate, A., 1961. Moluscos terrestres recogidos en la provincia de Huelva. *Boletín de la Real Sociedad Española de Historia Natural (Sección Biológica)*, 59: 169–190.

Superorden Eupulmonata, Stylommatophora, Pupilloidea, Orculidae

Orcula (Sphyradium) doliolum klemmi Altimira, 1959 ([back to the Index](#))

Altimira, C., 1959. Contribución al conocimiento de la Fauna Malacològica de la provincia de Tarragona. *Miscelànea Zoològica*, 1: 89–95. [p. 91; fig. 2].

Type locality: "alrededores de la font Grossa de la Riba".

Toponymic note and update: around the font (= spring) Grossa, in la Riba, a municipality in the province of Tarragona.

Types

Syntypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–0662 (loc. tip., 14 shells, ex col. Bech).



Types in other museums

Syntypes: Naturalis, Nationaal Natuurhistorisch Museum, Leiden, NNHN (4 syntypes) + NNHN (5) + Museu Valencià d'Història Natural, MVHN 803 (4 shells, ex col. Altimira) + MVHN (ind.).

Current systematic position: *Sphyradium doliolum* (Bruguière, 1792)

Orcula (Sphyradium) doliolum klemmi Altimira, 1959 is a junior synonym of *Sphyradium doliolum* (Bruguière, 1792).

Gómez, B., 1998. Estudio sistemático y biogeográfico de los moluscos terrestres del Suborden Orthurethra (Gastropoda: Pulmonata: Stylommatophora) del País Vasco y regiones adyacentes, y catálogo de las especies ibéricas. Unpublished PhD, Universidad del País Vasco. 424 pp. [p. 222].

Remarks

The first list of types of this taxon (Martínez–Ortí and Uribe, 2008) has been updated with the information on the paralectotypes MZB 81–5195.

References

Martínez–Ortí, A., Uribe, F., 2008. Los ejemplares tipo de las colecciones malacològicas del Museu de Ciències Naturals de Barcelona y del Museu Valencià d'Història Natural. *Arxius de Miscel·lània Zoològica*, 6: 1–156.

Eupulmonata, Stylommatophora, Gastrodontoidea, Oxychilidae

Oxychilus (Ortizius) francescae Bech, 1996 ([back to the Index](#))

Bech, M., 1996. Descripció d'*Oxychilus (Ortizius) francescae* sp. nov. (Gastropoda: Pulmonata; Zonitidae) per a la malacofauna de Catalunya. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 3(3): 303–304. [fig. in page 304].

Type locality: "...Serrat d'Eurti. Can Roset ... U.T.M.: 31TDG19".

Toponymic note and update: Serrat d'Eurtí is an orographic element in the county of La Cerdanya, province of Girona (= Gerona)]; Can Roset (= Cal Rosset) is a country house in the municipality of Puigcerdà, province of Girona.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–1525 (loc. tip., shell, ex col. Bech). Photographed in Bech (1996) [p. 304].



Types in other museums

There is no record of of types for this taxon in other centers.

Current systematic position: *Aegopinella* sp.

On a label, probably added after the publication, Bech rectifies and assigns the new species to the genus *Aegopinella*. To clarify its specific assignment it would be necessary to study new material from the area where the holotype was collected.

Eupulmonata, Stylommatophora, Achatinoidea, Ferussaciidae

Subulona (Subulona) anarum Altimiras and Bech, 2000 ([back to the Index](#))

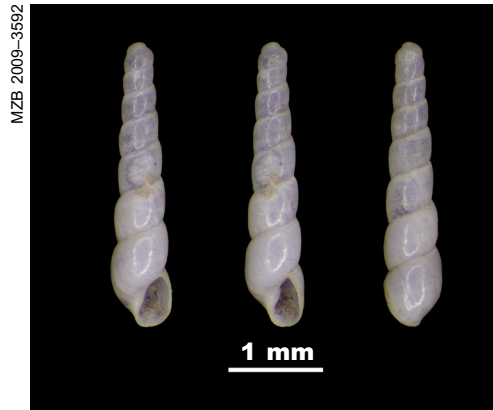
Altimiras, J., Bech, M., 2000. Nueva especie de gasterópodo terrestre para la fauna malacológica ibérica. *Revista de Estudios Extremeños*, 56(1): 291–300. [fig. 2–4].

Type locality: "...río Guadajira, afluente del río Guadiana, provincia de Badajoz (estación muestreada nº 2)...".

Toponymic note and update: province of Badajoz, Guadajira river [tributary of the Guadiana river], sampling station no. 2 (UTM = 29SQD0102, at the municipality of Lobón).

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3592 (loc. tip., shell, ex col. Bech). Drawn in Altimiras and Bech (2000) [fig. 4].



Current systematic position: *Coilostele acus* (Pfeiffer, 1854)

Martínez–Ortí, A., 2017. *Coilostele acus*. The IUCN Red List of Threatened Species 2017: e.T170977A1319534, <http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T170977A1319534.en> [Downloaded on 30 January 2018].

Remarks

The type material of *C. acus* (*locus typicus* Sevilla) could not be studied or compared with the type material of *S. anarum*, because it disappeared during the Second World War. We have had access to the photos of the syntypes of the seven species of *Coilostele* described by Bourguignat (1880) from the locality of Sevilla (fig. 3), carried out by Dr. Carlos Prieto (University of the Basque Country), and which are deposited at the Muséum d'Histoire Naturelle de Genève (Switzerland). These species are considered later synonyms of *C. acus* (Boettger, 1905; Neubert in Audibert, 2010): *C. castroiana*, *C. hispanica*, *C. laevigata*, *C. letourneuxiana*, *C. raphidia*, *C. servaini* and *C. tumidula*. The only type material found of *S. anarum* is the holotype, deposited at the MCNB that coincides with the typical conchological characteristics of *C. acus*, from which we consider *Subulona anarum* as junior synonymous. Altimiras and Bech (2000) cite several paratypes deposited at the Bech collection, which have not been located among the material of said collection currently deposited at the MCNB.

Altimiras and Bech (2000) point out as locus typicus of *S. anarum* "Cuencas hidrográficas del arroyo del Entrín Verde y río Guadajira, afluentes de la margen izquierda del río Guadiana (provincia de Badajoz)" [= hydrographic basins of the Entrín Verde stream and Guadajira river, tributaries of the left bank of the Guadiana river (province of Badajoz)]. This should be corrected to Guadajira river [tributary of the Guadiana river], sampling station no. 2 (UTM = 29SQD0102, at the municipality of Lobón), since the type material has been designated from that locality, among the 14 sampling stations cited by Altimiras and Bech (2000) (ICZN, 1999: Article 76, Recommendation 76A.2).

References

- Altimiras, J., Bech, M., 2000. Nueva especie de gasterópodo terrestre para la fauna malacológica ibérica. *Revista de Estudios Extremeños*, 56(1): 291–300.
- Audibert, C., 2010. *Coilostele cylindrata* Boettger, 1905, histoire d'une espèce mythique. *Folia conchylologica*, 5: 20–24.
- Boettger, O., 1905. Die Konchyliden aus den Anspülungen des Sarus-Flusses bei Adana in Cilicien. *Nachrichtenblatt der deutschen Malakozoologischen Gesellschaft*, 37(3): 97–123.
- Bourguignat, J. R., 1880. *Description de diverses espèces de Coelostele et de Paladilhia découvertes en Espagne par le D^r G. Servain*. Lachèse et Dolbeau, Angers. 22 pp.
- International Commission on Zoological Nomenclature, 1999. *International Code of Zoological Nomenclature*. Fourth Edition adopted by the International Union of Biological Sciences. The International Trust for Zoological Nomenclature, London.

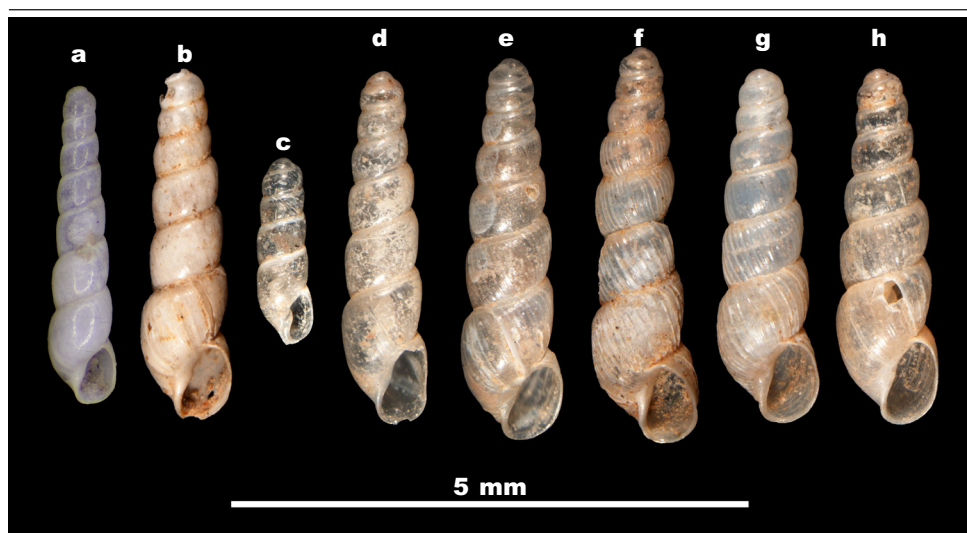


Fig. 3. a, *Subulona anarum*, holotype MZB 2009–3592 (ex col. Bech). Syntypes of *Coilostele* species described by Bourguignat (1880) (Muséum d'Histoire Naturelle de Genève): b, *Coilostele castroiana*; c, *Coilostele hispanica*; d, *Coilostele laevigata*; e, *Coilostele letourneuxiana*; f, *Coilostele raphidia*; g, *Coilostele servaini*; h, *Coilostele tumidula*.

Fig. 3. a, *Subulona anarum*, holotipo MZB 2009–3592 (antigua col. Bech). Sintipos de *Coilostele*, especie descrita por Bourguignat (1880) (Muséum d'Histoire Naturelle de Genève): b, *Coilostele castroiana*; c, *Coilostele hispanica*; d, *Coilostele laevigata*; e, *Coilostele letourneuxiana*; f, *Coilostele raphidia*; g, *Coilostele servaini*; h, *Coilostele tumidula*.

Eupulmonata, Stylommatophora, Helicoidea, Geomitridae, Helicellinae

Trochoidea escolai Bech, 1993 ([back to the Index](#))

Bech, M., 1993. Descripción de nuevas especies para la malacofauna ibérica. *Butlletí del Centre d'Estudis de la Natura del Barcelonès–Nord*, 2(3): 271–277. [p. 273; fig. 5A, 5B, 5C].

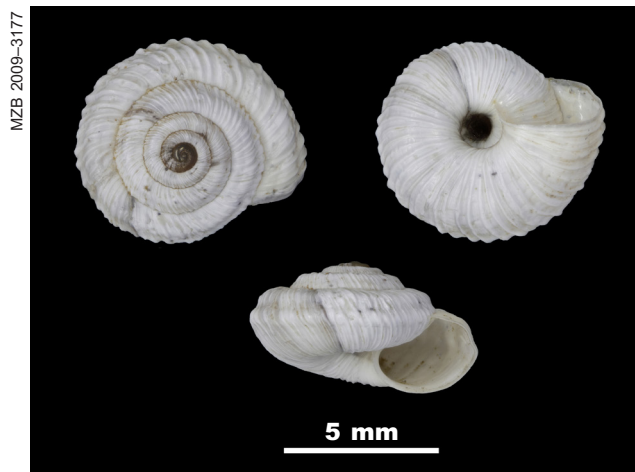
Type locality: "Peña Forca (2.000 m.) Hecho (Huesca) [...] U.T.M. 30TXN8945".

Toponymic note and update: Peña Forca is a mountain in the Pyrenees; Hecho (= Valle de Hecho) is a municipality in the province of Huesca.

Types

Holotype: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3177 (loc. tip. "Sierra Forca (inmediaciones Av. Dinar), Hecho (Huesca)", shell, ex col. Bech). Photographed in Bech (1993) [figs. 5A, 5B, 5C].

Paratypes: Museu de Ciències Naturals (Zoologia) de Barcelona, MZB 2009–3178 (loc. tip. "Sierra Forca (inmediaciones Av. Dinar), Hecho (Huesca)", 2 shells, ex col. Bech).



Types in other museums

There is no record of types for this taxon in other centers.

Current systematic position: *Helicella huidobroi* (Azpeitia, 1925)

Martínez–Ortí, A., 1999. *Moluscos terrestres testáceos de la Comunidad Valenciana*. Tesis Doctoral (inédita). Universidad de València. 743 pp. + 31 láms.

Remarks

The morphology of type specimens of *Trochoidea escolai* corresponds to that of *Helicella huidobroi* (Azpeitia, 1925), endemic to the Iberian–Mediterranean region associated with steppe and very dry habitats (Martínez–Ortí, 1999). This remarkable resemblance questions the geographical origin of the aforementioned types. According to their labels, they were collected in the Pyrenees of Huesca, at 2,000 m altitude. Martínez–Ortí (op. cit.) points the northernmost coast of northern Tarragona as the septentrional limit of distribution of *H. huidobroi*. Compare photographs of types of *T. escolai* with a sample of *H. huidobroi* housed in the Museu de Ciències Naturals de Barcelona (MZB 84–2483, ex. col. Gasull), from the town of Guardamar, in the province of Alicante.

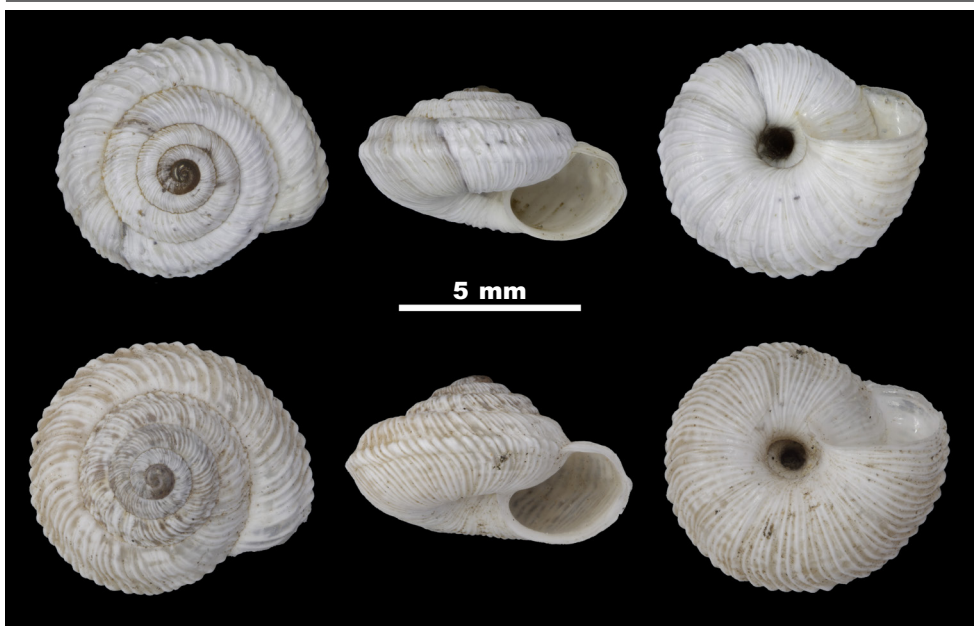


Fig. 4. Top, *Trochoidea escolai*, holotype MZB 2009–3177; bottom, *Helicella huidobroi*, MZB 84–2483.

Fig. 4. Arriba, *Trochoidea escolai*, holotipo MZB 2009–3177; abajo, *Helicella huidobroi*, MZB 84–2483.

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