


TYPE MATERIAL OF TAXA DESCRIBED BY COUSIN AND JOUSSEAUME IN THE ROYAL BELGIAN INSTITUTE OF NATURAL SCIENCES, BRUSSELS

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ABSTRACT: Type material is documented for 28 taxa described by Cousin and Jousseume on the basis of material collected by Cousin in Ecuador. These taxa belong to 12 families (Achatinidae, Ampullariidae, Bulimulidae, Labyrinthidae, Lymnaeidae, Neocyclotidae, Orthalicidae, Planorbidae, Proserpinellidae, Scolodontidae, Solaropsidae, Succineidae). Type specimens and their labels are figured. In some instances, the specimen labels provide more precise locality information than the literature reference. *Isomeria bourcierii* var. *lutea* Cousin, 1887 is now considered a junior objective synonym of *Isomeria bourcierii* (L. Pfeiffer, 1853).

KEY WORDS: Ecuador, taxa list, Mollusca, Gastropoda

INTRODUCTION

Auguste Édouard Cousin (1835–1899) was the French consul in Ecuador for many years. He published only a single paper (COUSIN 1887), but appears to have had a quite substantial collection of both marine and non-marine Mollusca from all over the world. An inventory of this collection was found in 2010 while researching Orthalicoidea type material in the Brussels museum (BREURE 2011: 3–4, fig. 2C). Although the title page is in the handwriting of Philippe Dautzenberg (1849–1935), a Belgian amateur who lived in Paris and had a world-renowned collection, the contents of this handwritten catalogue of 55 pages is likely in Cousin's own hand. According to the summary included in the catalogue, his collection contained 16,141 shells, of which 10,007 were non-marine specimens from Ecuador. It gives not only a good impression of the extent of Cousin's collection, but also reveals how material listed in this catalogue ended up being described by Félix Pierre Jousseume (1835–1921), whose collection is now in Paris (LAMY & DAUTZENBERG 1952, VAN GEMERT 2007, VAN GEMERT & BREURE 2017). An example is the species *Mesembrinus vesperus* Jousseume, of which JOUSSEAUME (1887: 168)

said “Un seul exemple de cette espèce à été recueilli par notre collègue, M. A. Cousin, dans son propriété de los Puentès, près Quito” [A single specimen of this species was collected by our colleague A. Cousin, at his property Los Puentes near Quito]. As Jousseume's paper was published in the same volume as Cousin's, and both mentioned in their introduction that Cousin's material had been the basis for each of them, it is safe to assume that any material in the former collection of Cousin may be regarded as type material for any taxon described by them; provided that it agrees with the data in their publications.

This paper documents the type material for species described by these two authors from the former collection of Cousin, which was sent to Jousseume during Cousin's life time; on one of the labels he mentioned a letter of 14 September 1887 (Fig. 128). After Cousin's death his collection was bought in 1913 by Dautzenberg; a few shells were possibly traded via local Parisian shell dealers (likely the Deyrolle and Vimont companies). For completeness sake, the types described by Cousin and listed in BREURE (2011) are included in this survey.

METHODS

Systematics follow [MOLLUSCABASE \(2019\)](#) with families and taxa listed alphabetically. In the alphabetical treatment of taxa the original reference is given, published type locality, type material registrations and number of specimens, label information, remarks (if needed) and the current systematic posi-

tion as far as known. Figures of both the material and labels are provided. Abbreviations used for depositories: MNHN – Muséum national d’Histoire naturelle, Paris, France; RBINS – Royal Belgian Institute of Natural Science, Brussels, Belgium. Other abbreviations: D – shell diameter; H – shell height.

GENERAL REMARKS

BIOGRAPHICAL DATA

Unfortunately there is but scant information about Auguste Édouard Cousin ([Fig. 1](#); [BREURE 2011](#): 3–5), which was partly based on an incorrect source. He was born 17 July 1835 in Paris (not Quito) and died 21 March 1899 in Quito (not Paris). He was the son of Edmé Paul Julien Cousin and Augustine Alexandrine Noël. He studied medicine in Paris and afterwards went to Ecuador, marrying Rosa Saá (1850–1928) in Quito in 1869; they had five children ([COUSIN 2019](#)). As may be clear from the introduction above, Cousin was friends with Jousseume. The fact that the latter described an eponym for Cousin in 1877 is a sign that the contact between the two men was established already at that time. As the two men were of the same age, it is possible that they knew each other from school or study, but evidence is missing. Cousin became a member of the Société zoologique de France



Fig. 1. Auguste Cousin at unknown age (modified after [COUSIN 2019](#))

in 1882, with a Paris address ([ANONYMOUS 1883](#)). In 1889 he was mentioned as residing in Quito ([ANONYMOUS 1889a](#)) and as being awarded the medal ‘Officier d’Académie’ ([ANONYMOUS 1889b](#): 350). Shortly afterwards his address was changed to Guayaquil ([ANONYMOUS 1891](#): 10), until in 1897 he was listed in Quito again ([ANONYMOUS 1897](#): 18) till his death in 1899 ([ANONYMOUS 1900](#)).

MOLLUSCAN TAXA INTRODUCED BY A. E. COUSIN

In his single molluscan publication he described the following taxa as new to science, which are partly treated in more detail below (marked with an asterisk*).

- **Ammonoceras cyclina* [COUSIN 1887](#): 245, pl. 4 fig. 6.
- **Ampullaria puntaplaya* [COUSIN 1887](#): 278, pl. 4 fig. 2.
- **Ampullaria reyreii* [COUSIN 1887](#): 279, pl. 4 fig. 7.
- Aplecta gualbertoi* [COUSIN 1887](#): 261, pl. 4 fig. 3.
- **Cyclophorus antonii* [COUSIN 1887](#): 271, pl. 4 fig. 4.
- **Hamadryas fallax* var. *major* [COUSIN 1887](#): 219.
- **Isomeria bourcierii* var. *lutea* [COUSIN 1887](#): 255.
- **Neritostoma marianita* [COUSIN 1887](#): 236, pl. 4 figs 5, 5bis.
- Obeliscus cuneus* var. *minor* [COUSIN 1887](#): 237 [nomen nudum].
- Obeliscus cuneus* var. *major* [COUSIN 1887](#): 237 [nomen nudum].
- Obeliscus jousseaumi* [COUSIN 1887](#): 238, pl. 4 fig. 1.
- **Orphnus thompsoni* var. *lutea* [COUSIN 1887](#): 212.
- **Orphnus thompsoni* var. *nigricans* [COUSIN 1887](#): 212.
- **Orphnus thompsoni* var. *olivacea* [COUSIN 1887](#): 212.
- **Orphnus thompsoni* var. *zebra* [COUSIN 1887](#): 212.
- **Planorbis canonicus* [COUSIN 1887](#): 264, pl. 4 fig. 11.
- **Planorbis equatorius* [COUSIN 1887](#): 263, pl. 4 fig. 8.
- Porphyrobaphe irrorata* var. β *elongata* [COUSIN 1887](#): 203 [nomen nudum].
- Thaumastus aequatorius* var. *fasciata* [COUSIN 1887](#): 222 [nomen nudum].
- Thaumastus aequatorius* var. *immaculata* [COUSIN 1887](#): 222 [nomen nudum].
- Thaumastus aequatorius* var. *interrupta* [COUSIN 1887](#): 222 [nomen nudum].



Thaumastus aequatorius var. *major* COUSIN 1887: 222 [nomen nudum].

**Thaumastus alausiensis* COUSIN 1887: 228, pl. 4 fig. 13.

**Thaumastus juana* COUSIN 1887: 228, pl. 4 fig. 10.

**Thaumastus* (?) *nystianus* var. *lutea* COUSIN 1887: 220.

**Thaumastus* (?) *nystianus* var. *nigricans* COUSIN 1887: 221.

Veronicella marianita COUSIN 1887: 190, pl. 4 fig. 14.

EPONYMS NAMED AFTER A. E. COUSIN

The following eponyms were given to Auguste Cousin (this list is not necessarily complete):

Ampullaria cousini JOUSSEAUME 1887: 185, pl. 3 fig. 3. [Gastropoda, Ampulariidae].

SYSTEMATIC PART

ALPHABETICAL LIST OF FAMILIES WITH COUSIN'S AND JOUSSEAUME'S NEW TAXA

Family Achatinidae Swainson, 1840

jousseumei Cousin, 1887 (*Obeliscus*); *valenzuela* Jousseume, 1887 (*Leptinaria*).

Family Ampullariidae J. E. Gray, 1824

puntaplaya Cousin, 1887 (*Ampullaria*); *reyrei* Cousin, 1887 (*Ampullaria*); *tenuissima* Jousseume, 1894 (*Ampullaria*).

Family Bulimulidae Tryon, 1867

alausiensis Cousin (*Thaumastus*), 1887; *juana* Cousin, 1887 (*Thaumastus*); *major* Cousin, 1887 (*Hamadryas*); *nigricans* Cousin, 1887 (*Thaumastus*).

Family Labyrinthidae Borrero, Sei, Robinson et Rosenberg, 2017

lutea Cousin, 1887 (*Isomeria*).

Family Lymnaeidae Rafinesque, 1815

cousini Jousseume, 1887 (*Limnaea*); *raphaelis* Jousseume, 1887 (*Limnaea*).

Family Neocyclotidae Kobelt et Möllendorff, 1897

antonii Cousin, 1887 (*Cyclophorus*); *vasconesi* Jousseume, 1897 (*Cyclophorus*).

Family Orthalicidae Martens in Albers, 1860

lutea Cousin, 1887 (*Orphnus*); *nigricans* Cousin, 1887 (*Orphnus*); *olivacea* Cousin, 1887 (*Orphnus*); *zebra* Cousin, 1887 (*Orphnus*).

Family Planorbidae Rafinesque, 1815

canonicus Cousin, 1887 (*Planorbis*); *clevei* Jousseume in Cousin, 1887 (*Planorbis*); *aequatorius* Cousin, 1887 (*Planorbis*).

Biomphalaria cousini PARAENSE 1966: 119, figs 2, 4, 6. [Gastropoda, Planorbidae].

Cyclophorus cousini JOUSSEAUME 1884: 173, pl. 4 fig. 13. [Gastropoda, Neocyclotidae].

Lymnaea cousini JOUSSEAUME 1887: 182, pl. 3 fig. 8. [Gastropoda, Lymnaeidae].

Nenia cousini JOUSSEAUME 1900: 32, pl. 1 fig. 12. [Gastropoda, Clausiliidae].

Proserpinella cousini JOUSSEAUME 1887: 181, pl. 13 figs 15–16. [Gastropoda, Proserpinellidae].

Rhodea cousini JOUSSEAUME 1900: 36, pl. 1 fig. 15. [Gastropoda, Achatinidae].

Solaropsis cousini JOUSSEAUME 1887: 177. [Gastropoda, Solaropsidae].

Family Proserpinellidae H. B. Baker, 1923

cousini Jousseume, 1887 (*Proserpinella*).

Family Scolodontidae H. B. Baker, 1925

locardi Jousseume, 1887 (*Guestieria*); *lyzarzaburui* Jousseume, 1887 (*Ammonoceras*); *martinida* Jousseume, 1887 (*Guestieria*).

Family Solaropsidae H. Nordsieck, 1986

cousini Jousseume, 1887 (*Solaropsis*); *cyclina* Cousin, 1887 (*Ammonoceras*).

Family Succineidae H. Beck, 1837

marianita Cousin, 1887 (*Neritostoma*).

ALPHABETICAL LIST OF TAXA

alausiensis, *Thaumastus* Cousin, 1887 [Bulimulidae]

Figs 2–6

Thaumastus alausiensis COUSIN 1887: 228, pl. 4 fig. 13.

Type locality. “sur le versant du mont Hacu, entre Achapallas et la rivière Sula, sur le territoire Alausi, province de Chimborazo” [on the slope of Mount Hacu, between Achapallas and the River Sula, in the Alausi territory, province of Chimborazo].

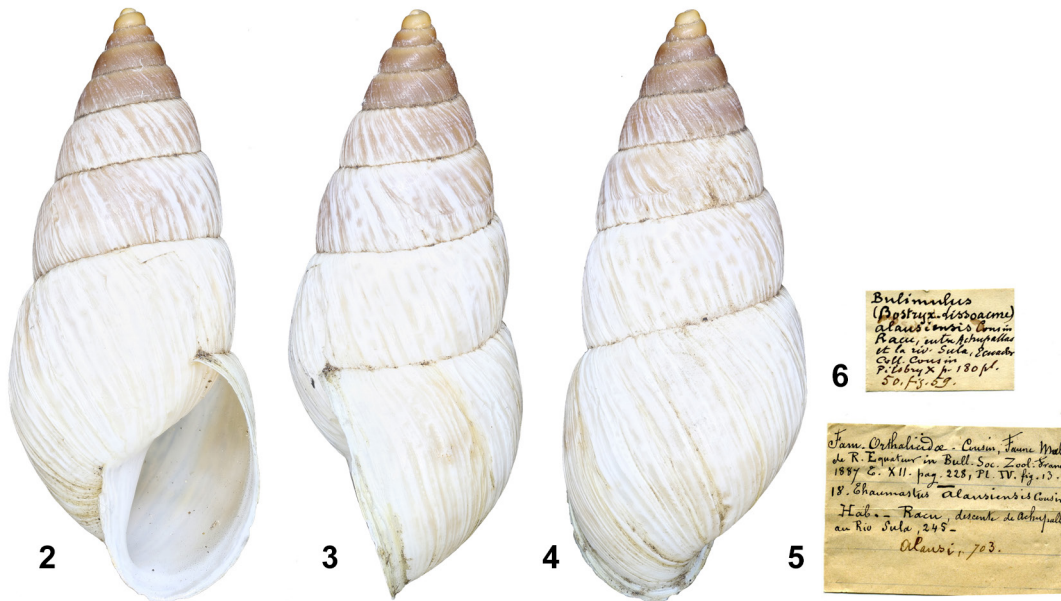
Dimensions. “long. 25mm; diam. 9 à 10mm”; figured specimen H 25.7 mm.

Type material. RBINS MT.2333 (1), MT.2334 (12), paralectotypes.

Label. “Racu, descente de Achupulla au Rio Sula” [Racu, descent from Achupulla to Rio Sula].

Type evidence. The material is ex Dautzenberg ex Cousin collection, label in Cousin's handwriting.

Remarks. Additional type material is in the Paris museum: MNHN-IM-2000-20820 (lectotype; BREURE 1976: 1141); MNHN-IM-2000-20821 (1), paralectotype.



Figs 2–6. *Bostryx alausiensis* (Cousin, 1887), paralectotype RBINS MT.2333 (H 25.7 mm): 2 – apertural view, 3 – right lateral view, 4 – dorsal view, 5 – original label by Cousin, 6 – label by Dautzenberg



Figs 7–12. *Lagocyclus antonii* (Cousin, 1887), syntype RBINS MT.3816 (D 21.7 mm): 7 – apertural view, 8 – right lateral view, 9 – apical view, 10 – umbilical view, 11 – label by Dautzenberg, 12 – same



Current systematic position. *Bostryx alausiensis* (Cousin, 1887).

antonii, *Cyclophorus* Cousin, 1887
[Neocyclotidae]

Figs 7–12

Cyclophorus antonii COUSIN 1887: 271, pl. 4 fig. 4.

Type locality. “je connais pas l’habitat exact” [I don’t know the exact habitat].

Dimensions. “gr. diam., 20–21^{mm}; p. diam., 17–18^{mm}; haut., 11–12^{mm}”; figured specimen D 21.7 mm.

Type material. RBINS MT.3816 (2), syntypes.

Label. “Équateur”.

Type evidence. The material is ex Dautzenberg ex Cousin collection, label in Dautzenberg’s handwriting. The original label is lost. The taxon name on the current label was originally a Jousseume name [*Cyclotus cousini* = *Calaperostoma cousini* (Jousseume, 1884)], also in Dautzenberg’s hand, which has been corrected by him. The lowest row on the label might refer to a locality, but could not be found with modern gazetteers. The alternative is a reference to a provenance, in which case it might refer to the dealer Vimont where E. Marie worked in his later years.

Current systematic position. *Lagocyclus antonii* (Cousin, 1887).

canonicus, *Planorbis* Cousin, 1887
[Planorbidae]

Figs 13–16

Planorbis canonicus COUSIN 1887: 264, pl. 4 fig. 11.

Type locality. “le lac Saint-Paolo, près Quito” [Lake St. Paolo, near Quito].



Figs 13–16. *Biomphalaria peregrina* (d’Orbigny, 1835), syntype of *Planorbis canonicus* Cousin, 1887 RBINS MT.3852 (D 9.8 mm): 13 – apertural view, 14 – apical view, 15 – umbilical view, 16 – label by Dautzenberg

Dimensions. “gr. diam., 10^{mm}; pet. diam., 8^{mm}; épaisseur, 4^{mm}”; figured specimen D 9.8 mm.

Type material. RBINS MT.3852 (20), syntypes.

Label. “Lac St Paulo près Quito (Ecuador)”, “Lac San Pablo, Ecuador”.

Type evidence. The material is ex Dautzenberg ex Cousin collection, the labels are both in the handwriting of Dautzenberg.

Remarks. The taxonomic position has been revised by PARAENSE (2004).

Current systematic position. *Biomphalaria peregrina* (d’Orbigny, 1835) (PARAENSE 2004).

clevei, *Planorbis* Jousseume in Cousin, 1887
[Planorbidae]

Figs 17–22

Planorbis clevei Jousseume in COUSIN 1887: 263, pl. 4 fig. 9.

Type locality. “Équateur”.

Dimensions. “gr. diam., 18^{mm}; pet. diam., 15^{mm}; épaisseur, 6^{mm}5”; figured specimen D 18.2 mm.



Figs 17–22. *Biomphalaria clevei* (Jousseume, 1887), syntype RBINS MT.3841 (D 18.2 mm): 17 – apical view, 18 – apertural view, 19 – umbilical view, 20 – labels Dautzenberg respectively Jousseume, 21 – labels Dautzenberg respectively Cousin, 22 – label by Dautzenberg

Type material. RBINS MT.3841 (1), MT.3842 (3), MT.3843 (7), MT.3844 (9), syntypes.

Label. “Équateur”, “Guayaquil, Mapasinga, Yaguachi”, “Guayaquil, derrière Las Peñas” “Boca de Estero de Zarumilla, province de Oro”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; two labels are written presumably in Jousseume’s hand, three later labels written in Dautzenberg’s handwriting (one label mentioning “Cousin leg. / Deyrolle ex Jousseume”).

Remarks. The specimen which is ex Jousseume is much smaller (13.1 mm) than the original dimensions (“gr. diam. 18 mm”). This taxon has not been revised by later authors.

Current systematic position. Unknown, provisionally *Biomphalaria clevei* (Jousseume, 1887).

cousini, *Limnaea* Jousseume, 1887
[Lymnaeidae]

Figs 23–27

Limnaea cousini JOUSSEUME 1887: 182, pl. 3 fig. 8.

Type locality. “Chancu-Yacu, près de Chillogallo, canton de Quito” [Chancu-Yacu, near Chillogallo, canton of Quito].

Dimensions. “long., 10 à 14^{mm}; gr. diam., 6 à 10^{mm}; p. diam. 5 à 6^{mm}; ouverture, long., 7 à 10^{mm}; larg., 4 à 6^{mm}”; figured specimen H 9.1 mm.

Type material. RBINS MT.3847 (20), syntypes.



Figs 23–27. *Galba cousini* (Jousseume, 1887), syntype RBINS MT.3847 (H 9.1 mm): 23 – apertural view, 24 – right lateral view, 25 – dorsal view, 26 – label presumably by Cousin, 27 – label by Dautzenberg

Label. “Chillogallo”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label presumably in Cousin’s handwriting.

Remarks. Additional type material is present in the Paris museum: MNHN-IM-2000-35288 (8), MNHN-IM-2000-35289 (12). According to [PARAENSE \(2004\)](#) this is a valid species.

Current systematic position. *Galba cousini* (Jousseume, 1887).

cousini, *Proserpinella* Jousseume, 1887
[Proserpinellidae]

Figs 28–33

Proserpinella cousini JOUSSEUME 1887: 181, pl. 3 figs 15–16.

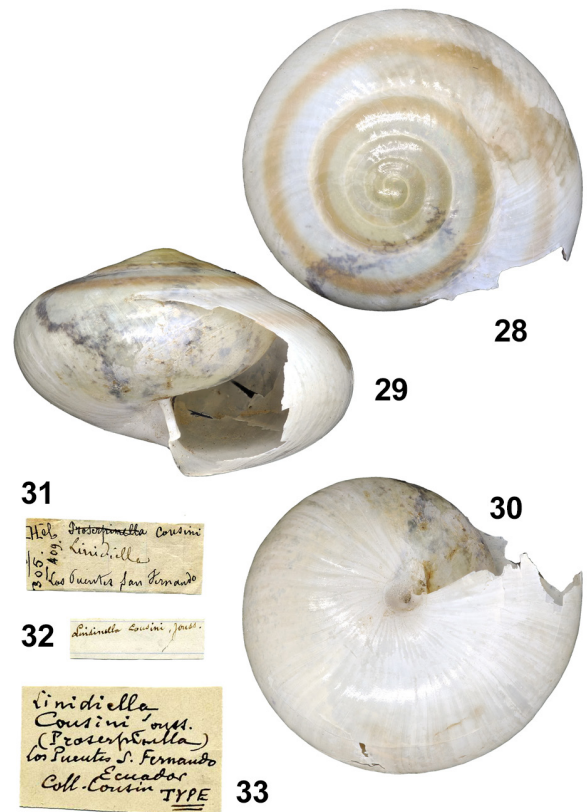
Type locality. “République de l’Équateur”.

Dimensions. “gr. diam., 13^{mm}; p. diam., 11^{mm}; haut., 7^{mm}”; figured specimen D 10.0 mm.

Type material. RBINS MT.43 (3), syntypes.

Label. “Los Puentes San Fernando”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; two labels written in Cousin’s handwriting.



Figs 28–33. *Archecharax cousini* (Jousseume, 1887), syntype RBINS MT.43 (D 10.0 mm): 28 – apical view, 29 – apertural view, 30 – umbilical view, 31 – label by Jousseume, 32 – same, 33 – label by Dautzenberg

Remarks. JOUSSEAUME (1887: 182) remarked “Je ne puis pas indiquer le point précis de la République de l'Équateur où cette espèce a été trouvée” [I cannot indicate the precise place within Ecuador where this species has been found]. The label text seems to refer to two localities: ‘Los Puentes’, a locality where Cousin lived, and ‘San Fernandino’, which could not be found with modern gazetteers. The aperture is damaged, which explains the differences in dimensions between the published and the actual data.

Current systematic position. *Archecharax cousini* (Jousseume, 1887).

cousini, *Solaropsis* Jousseume, 1887
[Solaropsidae]

Figs 34–37

Solaropsis cousini JOUSSEAUME 1887: 177.

Type locality. “le bassin du Napo, Équateur” [Napo Basin, Ecuador].

Dimensions. “gr. diam., 85^{mm}; p. diam., 70^{mm}; haut. 45^{mm}”; figured specimen D 84.6 mm.

Type material. RBINS MT.3851 (4), syntypes.

Label. “Napo” “Ávila, 440' / Toplat [?] de Napo, 264' / Tena, 511'”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Cousin's handwriting.

Remarks. As far as I know, this species has not been figured before. It is very similar to *Solaropsis gibboni* (L. Pfeiffer, 1846), described from ‘Neu-Grenada’, and further research may show it to be a junior subjective synonym of Pfeiffer's taxon.

Current systematic position. *Solaropsis cousini* Jousseume, 1887.

cyclina, *Ammonoceras* Cousin, 1887
[Systrophiidae]

Figs 38–42

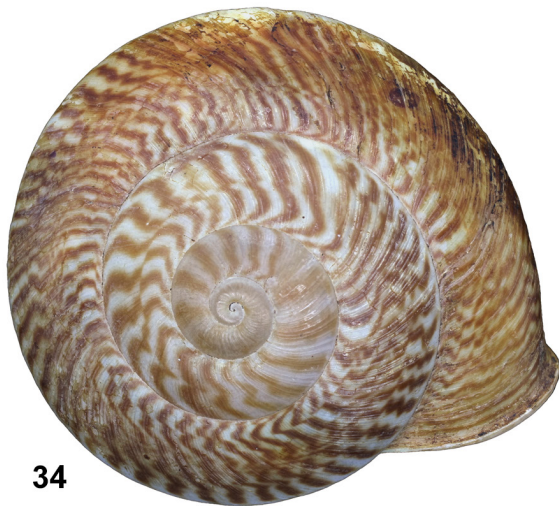
Ammonoceras cyclina COUSIN 1887: 245, pl. 4 fig. 6.

Type locality. Not given.

Dimensions. “gr. diam., 20 à 21^{mm}; pet. diam., 18 à 19^{mm}; haut., 6 à 7^{mm}; ouverture, 6 à 7^{mm}”; figured specimen D 17.2 mm.

Type material. RBINS MT.3839 (2), syntypes.

Label. “Hac. [Hacienda] Puca Yacu près Quevedo” [Puca Yacu farm near Quevedo].



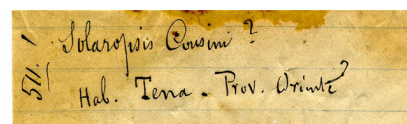
34



35

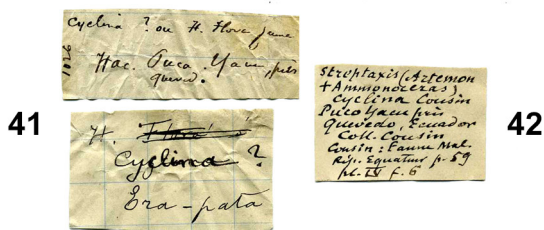
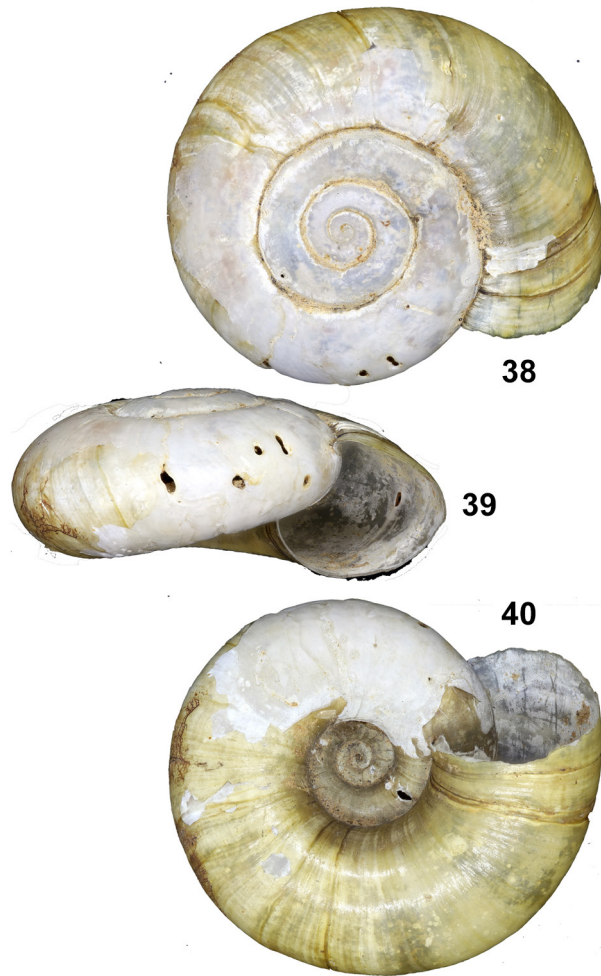


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37

Figs 34–37. *Solaropsis cousini* Jousseume, 1887, syntype RBINS MT.3851 (D 84.6 mm): 34 – apical view, 35 – umbilical view, 36 – apertural view, 37 – label by Jousseume



Figs 38–42. *Hattia cyclina* (Cousin, 1887), syntype RBINS MT.3839 (D 17.2 mm): 38 – apical view, 39 – apertural view, 40 – umbilical view, 41 – labels by Cousin, 42 – label by Dautzenberg

Type evidence. The material is ex Dautzenberg ex Cousin collection; label presumably written in Jousseaume’s handwriting.

Current systematic position. *Hattia cyclina* (Cousin, 1887).

equatorius, *Planorbis* Cousin, 1887
[Planorbidae]

Figs 43–48

Planorbis equatorius COUSIN 1887: 263, pl. 4 fig. 8.

Type locality. “Équateur”.

Dimensions. “gr. diam., 20mm; pet. diam., 17mm; épaisseur, 6mm5”; figured specimen D 22.3 mm.

Type material. RBINS MT.3831 (10), MT.3832 (10), MT.3833 (5), MT.3834 (14), syntypes.

Labels. “environs de Guayaquil”, “Milagro”, “Guayaquil, [illigible]”, “Yaguachi”.

Type evidence. All material originates from the Cousin collection, partly with original labels.

Remarks. The specimen now figured bears a strong resemblance to the original figure by Cousin. [PARAENSE \(2004\)](#) considered this taxon as a valid species.

Current systematic position. *Biomphalaria equatoria* (Cousin, 1887).

jousseaumei, *Obeliscus* Cousin, 1887
[Achatinidae]

Figs 49–52

Obeliscus jousseaumei COUSIN 1887: 238, pl. 4 fig. 1.

Type locality. “à la descente d’Azagues, venant de Molobog (...) à une altitude d’environ 2,400 mètr.” [on the descent of Azagues, coming from Molobog (...) at an altitude of about 2,400 meters].

Dimensions. “long., 27mm; diam., 8mm; ouverture: long., 8mm; larg., 5mm”; figured specimen H 28.3 mm.

Type material. RBINS MT.3845 (28), syntypes.

Label. “Foret Azogues No 177 – Azogues, Cuenca, 192 – Chemin à Gualcea 322 – Chicticay 149 – Gualaceo 229”.



Figs 43–48. *Biomphalaria equatoria* (Cousin, 1887), syntype RBINS MT.3831 (D 22.3 mm): 43 – apical view, 44 – apertural view, 45 – right lateral view, 46 – umbilical view, 47 – label by Cousin, 48 – label by Dautzenberg



Figs 49–52. *Protobeliscus jousseaumi* (Cousin, 1887), syntype RBINS MT.3845 (H 28.3 mm): 49 – apertural view, 50 – right lateral view, 51 – dorsal view, 52 – label by Dautzenberg

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Cousin’s handwriting.

Remarks. The label suggests that this lot is a mixture from different localities, however, they cannot be disentangled anymore.

Current systematic position. *Protobeliscus jousseaumi* (Cousin, 1887).

juana, *Thaumastus* Cousin, 1887
 [Bulimulidae]

Figs 53–57

Thaumastus juana COUSIN 1887: 228, pl. 4 fig. 10.

Type locality. “Gualacco, province de Cuença”.
Dimensions. “long., 20 à 23mm; diam. 10 à 12mm”; figured specimen H 19.1 mm.

Type material. RBINS MT.2357 (7), paralectotypes.

Label. “chemin à Gualacco, rives du Paute, avant le pont” [path to Gualacco, banks of the Paute, before the bridge].

Type evidence. The material is ex Dautzenberg ex Cousin collection; label in Cousin’s handwriting.

Remarks. Additional type material is in the Paris museum: MNHN-IM-2000-21318 (lectotype; BREURE 1976: 1141).

Current systematic position. *Bostryx juana* (Cousin, 1887).



Figs 53–57. *Bostryx juana* (Cousin, 1887), paralectotype RBINS MT.2357 (H 19.1 mm): 53 – apertural view, 54 – right lateral view, 55 – dorsal view, 56 – label by Cousin, 57 – label by Dautzenberg

locardi, *Guestieria* Jousseume, 1887
 [Scolodontidae]

Figs 58–62

Guestieria locardi JOUSSEAUME 1887: 175, pl. 3 fig. 13.

Type locality. “Los Puantès [sic], canton de Quito”.

Dimensions. “gr. diam., 9mm; p. diam., 7mm; haut., 4mm”; figured specimen D 8.4 mm.

Type material. RBINS MT.3835 (3), syntypes.

Label. “Los Puentes”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg’s handwriting.

Remarks. Additional type material is in the Paris museum: MNHN-IM-2000-25757 (9), syntypes.

Current systematic position. *Guestieria locardi* Jousseume, 1887.

lutea, *Isomeria* bourcierii Cousin, 1887
 [Labyrinthidae]

Figs 63–68

Isomeria bourcierii var. *lutea* COUSIN 1887: 255.

Type locality. “Los Puentes près de Gualea”.

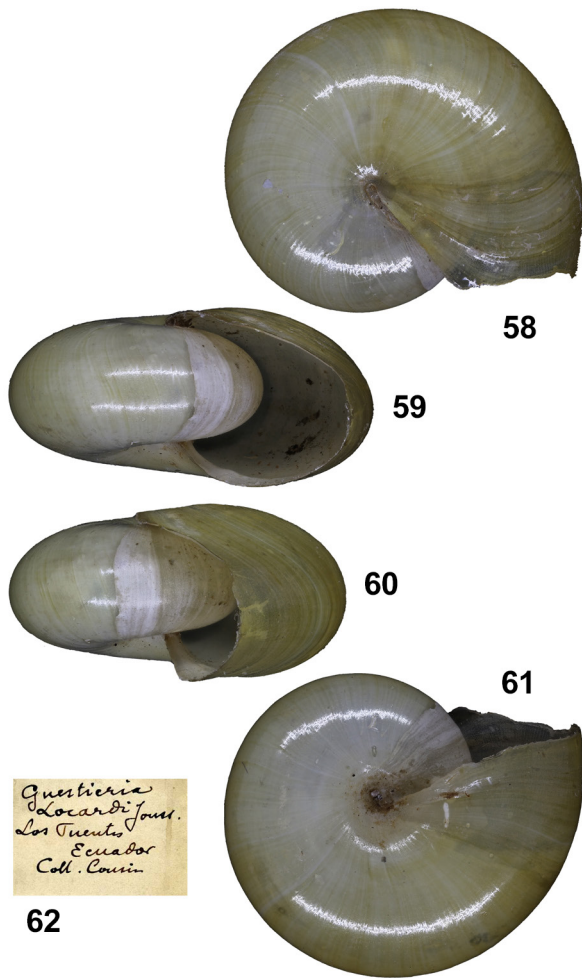
Dimensions. Not given; figured specimen D 31.8 mm.

Type material. RBINS MT.3817 (9), syntypes.

Label. “Ecuador, Los Puentes”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg’s handwriting, locality label in Cousin’s hand.

Remarks. This is a colour form of the nominate species.



Figs 58–62. *Guestieria locardi* Jousseau, 1887, syntype RBINS MT.3835 (D 8.4 mm): 58 – apical view, 59 – apertural view, 60 – right lateral view, 61 – umbilical view, 62 – label by Dautzenberg



Figs 63–68. *Isomeria bourcierii* (L. Pfeiffer, 1853), syntype of *Isomeria bourcierii* var. *lutea* Cousin, 1887 RBINS MT.3817 (D 31.8 mm): 63 – apertural view, 64 – right lateral view, 65 – apical view, 66 – umbilical view, 67 – label by Cousin, 68 – label by Dautzenberg

Current systematic position. *Isomeria bourcierii* (L. Pfeiffer, 1853) (syn. n.).

lutea, *Orphnus thompsoni* Cousin, 1887
[Orthalicidae]

Figs 69–72

Orphnus thompsoni var. *lutea* COUSIN 1887: 212.

Type locality. “Cuença”.

Dimensions. Not given; figured specimen H 75.6 mm.

Type material. RBINS MT.2358 (lectotype; BREURE 2011: 32); RBINS MT.2359 (5), paralectotypes.

Label. “Cuenca Ecuador”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg’s handwriting.

Current systematic position. *Kara thompsonii* (L. Pfeiffer, 1845) (BREURE 2011).

lutea, *Thaumastus* (?) *nystianus* Cousin, 1887
[Bulimulidae]

Figs 73–74

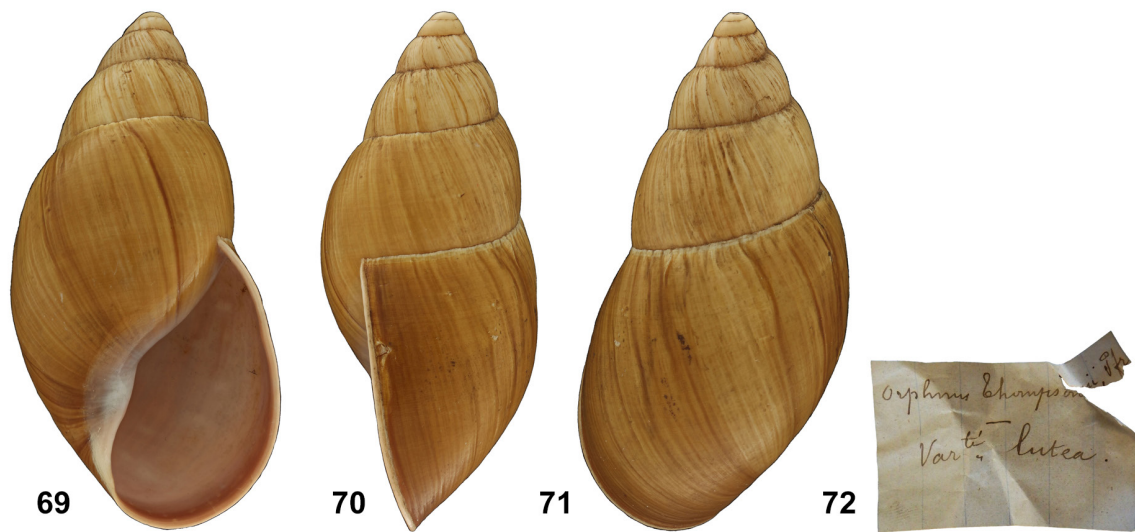
Thaumastus (?) *nystianus* var. *lutea* COUSIN 1887: 220.

Type locality. “près Quito (...) Tumbaco (...) Casha-Loma, près Chillogallo” [see remarks].

Dimensions. Not given; figured specimen H 36.1 mm.

Type material. RBINS MT.3818 (3), possible syntypes.

Label. “Chilguiltina”.



Figs 69–72. *Kara thompsonii* (L. Pfeiffer, 1845), lectotype of *Orphnus thompsoni* var. *lutea* Cousin, 1887 RBINS MT.2358 (H 75.6 mm): 69 – apertural view, 70 – right lateral view, 71 – dorsal view, 72 – label by Dautzenberg

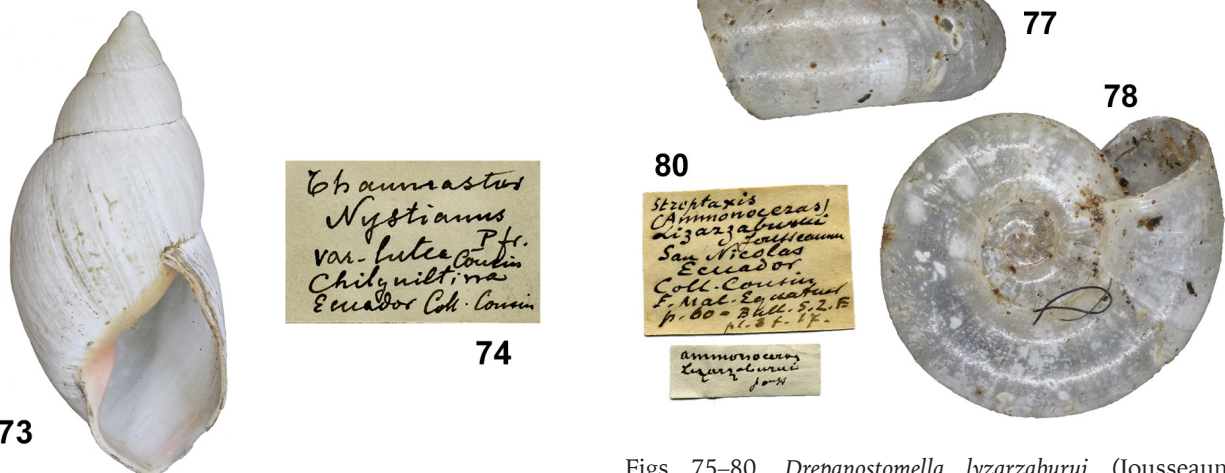
Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg's handwriting.

Remarks. In the handwritten catalogue Chilguitina is among the 14 localities where this variety was found, but apparently Cousin only mentioned the three best-known localities in his publication. Chilguitina could not be found with modern gazetteers. The specimens have lost their original colour.

Current systematic position. *Drymaeus* (*Drymaeus*) *nystianus* (L. Pfeiffer, 1853) (BREURE 2011).

lyzarzaburui, *Ammonoceras* Jousseume, 1887 [Scolodontidae]

Figs 75–80



Figs 73–74. *Drymaeus* (*Drymaeus*) *nystianus* (L. Pfeiffer, 1853), possible syntype of *Thaumastus* (?) *nystianus* var. *lutea* Cousin, 1887 RBINS MT.3818 (H 36.1 mm): 73 – apertural view, 74 – label by Dautzenberg

Figs 75–80. *Drepanostomella lyzarzaburui* (Jousseume, 1887), syntype RBINS MT.3836 (D 2.4 mm): 75 – apical view, 76 – apertural view, 77 – right lateral view, 78 – umbilical view, 79 – label by Dautzenberg, 80 – labels by Dautzenberg and presumably by Jousseume

Ammonoceras lyzarzaburui JOUSSEAUME 1887: 174, pl. 3 fig. 17.

Type locality. “San-Nicolas, canton de Mégia”.

Dimensions. “gr. diam 2^{mm}5; p. diam., 2^{mm}; haut. 1^{mm}”; figured specimen D 2.4 mm.

Type material. Syntypes RBINS MT.3836 (3).

Label. “amonoceras / lyzarzaburi / San N”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; one label presumably written in Joussemaume’s handwriting, the two others in the hand of Dautzenberg.

Remarks. Additional type material is in the Paris museum: MNHN-IM-2000-25754 (2), MNHN-IM-2000-25755 (4), syntypes.

Current systematic position. *Drepanostomella lyzarzaburui* (Joussemaume, 1887).

major, *Hamadryas fallax* Cousin, 1887
[Bulimulidae]

Figs 81–85

Hamadryas fallax var. *major* COUSIN 1887: 219.



Figs 81–85. *Drymaeus (Drymaeus) fallax* (L. Pfeiffer, 1853), syntype of *Hamadryas fallax* var. *major* Cousin, 1887 RBINS MT.3815 (H 24.2 mm): 81 – apertural view, 82 – right lateral view, 83 – dorsal view, 84 – label by Cousin, 85 – label by Dautzenberg

Type locality. “le long du chemin d’Aloag à Chones, canton de Mégia” [along the road from Aloag to Chones, canton of Mégia].

Dimensions. Not given; figured specimen H 24.2 mm.

Type material. RBINS MT.3815 (1), syntype.

Label. “Ecuador”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; taxon label written in Cousin’s handwriting, plus a label in Dautzenberg’s hand.

Current systematic position. *Drymaeus (Drymaeus) fallax* (L. Pfeiffer, 1853) (BREURE 2011).

marianita, *Neritostoma* Cousin, 1887
[Succineidae]

Figs 86–90

Neritostoma marianita COUSIN 1887: 236, pl. 4 figs 5–5bis.

Type locality. “San-Nicolas”.

Dimensions. “long., 6^{mm}; gr. diam., 4^{mm}; pet.diam. 3^{mm}”; figured specimen H 6.6 mm.

Type material. RBINS MT.3837 (15), syntypes.

Label. “neritostoma / marianita / sn. nicolas”.



Figs 86–90. *Succinea marianita* (Cousin, 1887), syntype RBINS MT.3837 (H 6.6 mm): 86 – apertural view, 87 – dorsal view, 88 – right lateral view, 89 – label presumably by Joussemaume, 90 – labels by Dautzenberg

Type evidence. The material is ex Dautzenberg ex Cousin collection; one label presumably written in Jousseume's handwriting.

Remarks. The taxon has not been revised in later literature.

Current systematic position. Unknown, provisionally *Succinea marianita* (Cousin, 1887).

***martinida*, *Guestieria* Jousseume, 1887
[Scolodontidae]**

Figs 91–95

Guestieria martinida JOUSSEAUME 1887: 176, pl. 3 fig. 19.

Type locality. “San-Nicolas, canton de Mégia, province de Pichincha”.

Dimensions. “gr. diam., 2^{mm}5; p. diam., 2^{mm}; haut., 0^{mm}8”; figured specimen D 2.3 mm.

Type material. RBINS MT.3830 (12), syntypes.

Label. “San Nicolas”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label presumably written in Jousseume's handwriting and additional labels in Dautzenberg's hand.

Remarks. More type material is in the Paris museum: MNHN-IM-2000-25756 (1), syntype.

Current systematic position. *Guestieria martinida* Jousseume, 1887.



Figs 91–95. *Guestieria martinida* Jousseume, 1887, syntype RBINS MT.3830 (D 2.2 mm): 91 – apical view, 92 – apertural view, 93 – umbilical view, 94 – label by Jousseume, 95 – labels by Dautzenberg

***nigricans*, *Orphnus thompsoni* Cousin, 1887
[Orthalicidae]**

Figs 96–99

Orphnus thompsoni var. *nigricans* COUSIN 1887: 212.

Type locality. “Cuença”.



Figs 96–99. *Kara thompsonii* (L. Pfeiffer, 1845), lectotype of *Orphnus thompsoni* var. *nigricans* Cousin, 1887 RBINS MT.2363 (H 62.8 mm): 96 – apertural view, 97 – right lateral view, 98 – dorsal view, 99 – label by Cousin

Dimensions. Not given; figured specimen H 62.8 mm.

Type material. RBINS MT.2363 (lectotype; BREURE 2011: 36); RBINS MT.2364 (3), paralectotypes.

Label. "Cuenca Ecuador".

Type evidence. The material is ex Dautzenberg ex Cousin collection; taxon label written by Cousin, locality label written in Dautzenberg's handwriting.

Current systematic position. *Kara thompsonii* (L. Pfeiffer, 1845) (BREURE 2011).

nigricans, *Thaumastus* (?) *nystianus* Cousin, 1887 [Bulimulidae]

Figs 100–103

Thaumastus (?) *nystianus* var. *nigricans* COUSIN 1887: 220.

Type locality. "les bords du chemin qui conduit de Pomasqui à Chilguiltina" [the sides of the road that leads from Pomasqui to Chilguiltina].

Dimensions. Not given; figured specimen H 36.6 mm.

Type material. RBINS MT.2365 (13), syntypes.

Label. "chemin de Pomasqui à Chiguiltina".

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg's handwriting.

Current systematic position. *Drymaeus* (*Drymaeus*) *nystianus* (L. Pfeiffer, 1853) (BREURE 2011).

olivacea, *Orphnus thompsonii* Cousin, 1887 [Orthalicidae]

Figs 104–108

Orphnus thompsonii var. *olivacea* COUSIN 1887: 212.

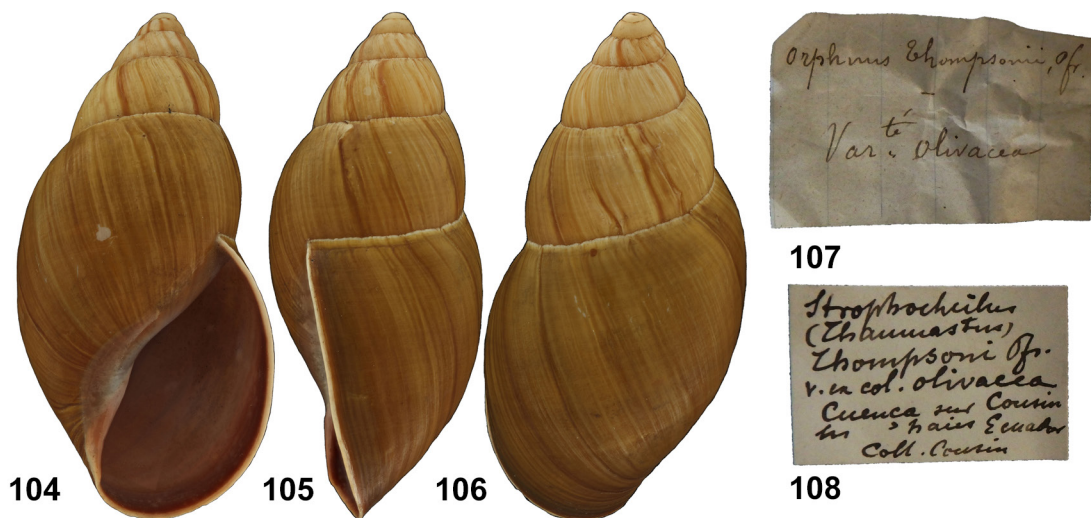
Type locality. "Cuença".

Dimensions. Not given; figured specimen H 69.0 mm.

Type material. RBINS MT.2366 (lectotype; BREURE 2011: 36); RBINS MT.2367 (3), paralectotypes.



Figs 100–103. *Drymaeus* (*Drymaeus*) *nystianus* (L. Pfeiffer, 1853), syntype of *Thaumastus* (?) *nystianus* var. *nigricans* Cousin, 1887 RBINS MT.2365 (H 36.6 mm): 100 – apertural view, 101 – left lateral view, 102 – dorsal view, 103 – label by Dautzenberg



Figs 104–108. *Kara thompsonii* (L. Pfeiffer, 1845), lectotype of *Orphnus thompsonii* var. *olivacea* Cousin, 1887 RBINS MT.2366 (H 69.0 mm): 104 – apertural view, 105 – right lateral view, 106 – dorsal view, 107 – label by Cousin, 108 – label by Dautzenberg

Label. “Cuenca Ecuador”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; taxon label written by Cousin, locality label written in Dautzenberg’s handwriting.

Current systematic position. *Kara thompsonii* (L. Pfeiffer, 1845) (BREURE 2011).

***puntaplaya*, *Ampullaria* Cousin, 1887**
[Ampulariidae]

Figs 109–113

Ampullaria puntaplaya COUSIN 1887: 278, pl. 4 fig. 2.

Type locality. “Puntaplaya”.

Dimensions. “long., 37^{mm}; gr. diam., 35^{mm}; p. diam., 27^{mm}; ouverture, long., 26^{mm}; larg., 27^{mm}”; figured specimen H 27.7 mm.

Type material. RBINS MT.3849 (8), paralectotypes.

Label. “Puntaplaya”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label in Cousin’s handwriting.

Remarks. Additional type material in Paris museum: MNHN-IM-2000-4622 (lectotype; COWIE & HÉROS 2012: 816); MNHN-IM-2000-4621, paralectotype.

Current systematic position. *Pomacea* (*Pomacea*) *puntaplaya* (Cousin, 1887).

***raphaelis*, *Limnaea* Jousseume, 1887**
[Lymnaeidae]

Figs 114–118

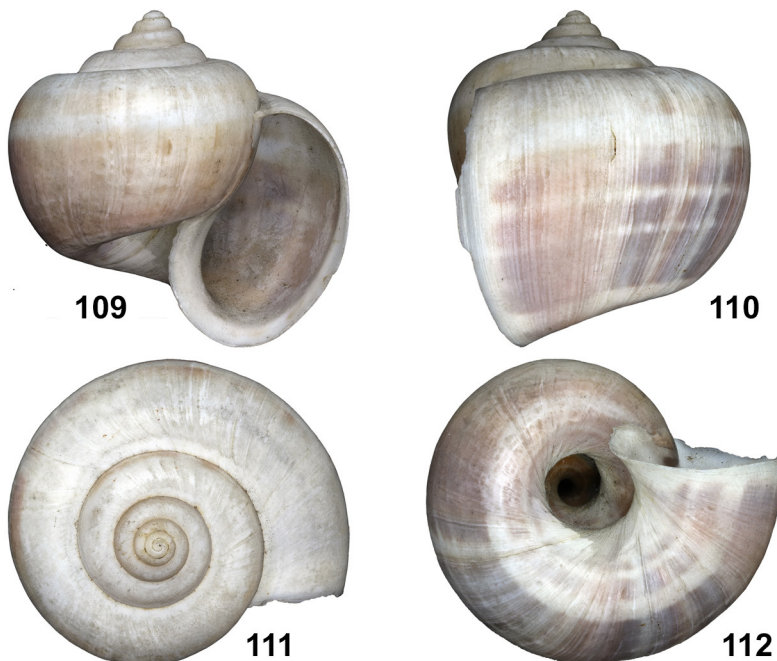
Limnaea raphaelis JOUSSEUME 1887: 183, pl. 3 fig. 1.



Figs 114–118. *Limnaea raphaelis* (Jousseume, 1887), syntype RBINS MT.3828 (H 7.0 mm): 114 – apertural view, 115 – right lateral view, 116 – dorsal view, 117 – label by Dautzenberg, 118 – label presumably by Jousseume

Type locality. “à environs 2570 mètres (...) la région sud de Cuenca (prov. d’Azúay)” [at about 2570 meters (...) the southern region of Cuenca (prov. of Azúay)].

Dimensions. “long., 7 à 9^{mm}; gr. diam., 6 à 4^{mm}; p. diam., 4 à 3^{mm}; ouverture, long., 5 à 3^{mm}5; larg., 3 à 2^{mm}5”; figured specimen H 7.0 mm.



Figs 109–113. *Pomacea* (*Pomacea*) *puntaplaya* (Cousin, 1887), paralectotype RBINS MT.3849 (H 27.7 mm): 109 – apertural view, 110 – right lateral view, 111 – apical view, 112 – umbilical view, 113 – label by Cousin

Type material. RBINS MT.3827 (23), MT.3828 (112), syntypes.

Label. “Lymnaea / raphaelis // Cuenca”, “Cuenca”, “près Pungavo”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; one label presumably in Jousseaume’s hand, two other labels both in handwriting of Dautzenberg.

Remarks. The locality ‘Pungavo’ could not be located with modern gazetteers; it is possibly a misspelling. The taxon has not been revised in recent literature.

Current systematic position. Unknown, provisionally *Lymnaea raphaelis* (Jousseaume, 1887).

reyrei, *Ampullaria* Cousin, 1887
[Ampullariidae]

Figs 119–123

Ampullaria reyrei COUSIN 1887: 279, pl. 4 fig. 7.

Type locality. “Napo”.

Dimensions. “long., 41^{mm}; grand diamètre, 33^{mm}; petit diamètre, 16^{mm}; ouverture, long., 29^{mm}; larg., 16^{mm}”; figured specimen H 37.7 mm.

Type material. RBINS MT.1153 (1), syntype.

Label. “Napo Ecuador”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Dautzenberg’s handwriting.

Remarks. Additional type material in Paris museum: MNHN-IM-2000-23087 (1), probable syntype (see COWIE & HÉROS 2012: 816).

Current systematic position. *Pomacea* (*Pomacea*) *reyrei* (Cousin, 1887).

tenuissima, *Ampullaria* Jousseaume, 1894
[Ampullariidae]

Figs 124–130

Ampullaria tenuissima JOUSSEAUME 1894: 120, fig.

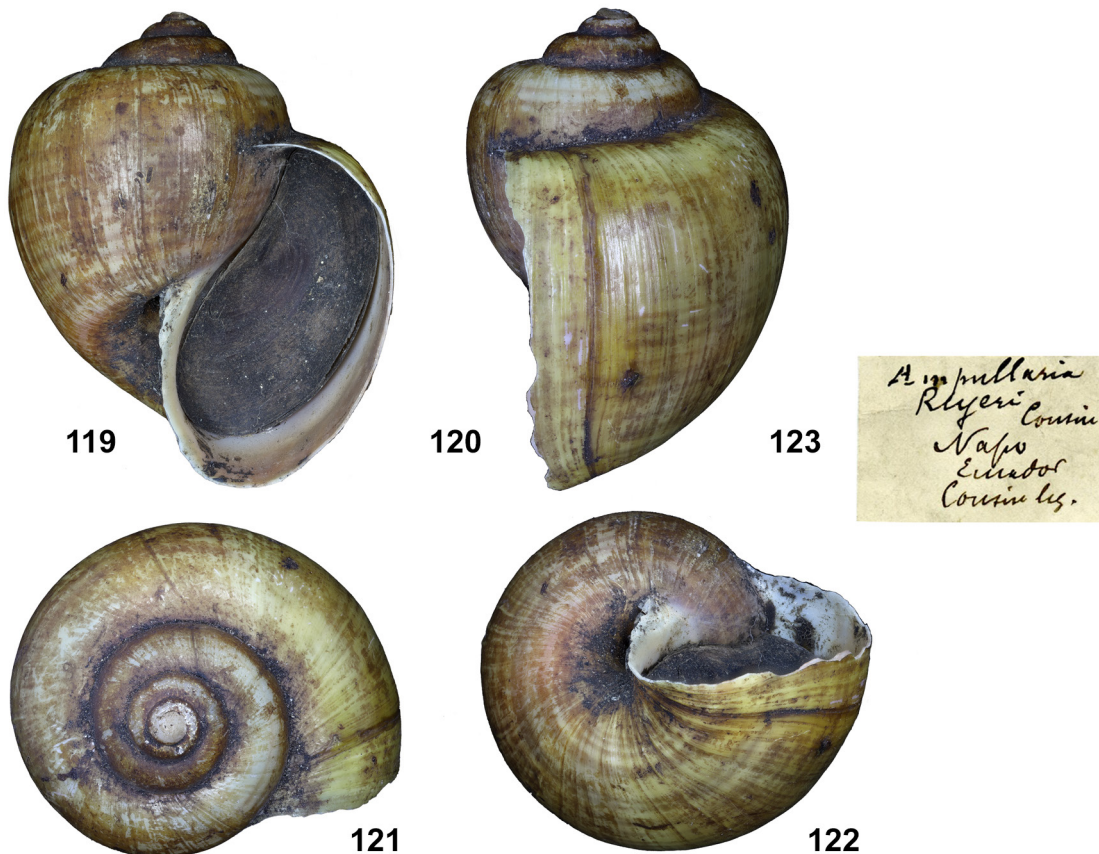
Type locality. “Équateur”.

Dimensions. “longueur, 67 millimètres; largeur, 50 millimètres; épaisseur, 42 millimètres; ouverture: longueur, 50 millimètres; largeur, 28 millimètres”; figured specimen H 60.7 mm.

Type material. RBINS MT.3850 (5), syntypes.

Label. “Aguarico”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; three labels written in the hand of Jousseaume, one other written in Dautzenberg’s handwriting.



Figs 119–123. *Pomacea* (*Pomacea*) *reyrei* (Cousin, 1887), syntype RBINS MT.1153 (H 37.7 mm): 119 – apertural view, 120 – right lateral view, 121 – apical view, 122 – umbilical view, 123 – label by Dautzenberg



Figs 124–130. *Pomacea (Pomacea) tenuissima* (Jousseume, 1894), syntype RBINS MT.3850 (H 60.7 mm): 124 – apertural view, 125 – right lateral view, 126 – apical view, 127 – umbilical view, 128 – label by Jousseume, 129 – labels by Jousseume, 130 – label by Dautzenberg

Remarks. Jousseume explicitly mentioned his species was based on material from Cousin. One of the specimens closely matches the original figure. COWIE & THIENGO (2004: 76) considered this taxon as a valid species.

Current systematic position. *Pomacea (Pomacea) tenuissima* (Jousseume, 1894).

valenzuela, *Leptinaria* Jousseume, 1887
[Achatinidae]

Figs 131–133

Leptinaria valenzuela JOUSSEUME 1887: 170, pl. 3 fig. 4.

Type locality. “la Coca, province d’Orienté”.

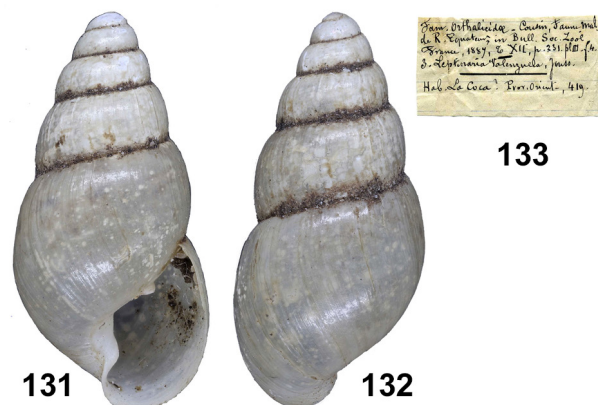
Dimensions. “long., 10^{mm}; larg., 4^{mm}5; ouverture: long., 4^{mm}; larg., 3^{mm}”;

figured specimen H 9.3 mm.

Type material. RBINS MT.3846 (60), syntypes.

Label. “La Coca ? Prov. Orienté”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; label written in Cousin’s handwriting.



Figs 131–133. *Leptinaria unilamellata* (d’Orbigny, 1835), syntype of *Leptinaria valenzuela* Jousseume, 1887 RBINS MT.3846 (H 9.3 mm): 131 – apertural view, 132 – dorsal view, 133 – label by Cousin

Remarks. The locality given by Jousseume is currently named Puerto Francisco de Orrealana.

Current systematic position. *Leptinaria unilamellata* (d'Orbigny, 1835) (F. NAGGS, pers. commun.).

***vasconesi*, *Cyclophorus* Jousseume, 1897
[Neocyclotidae]**

Figs 134–139

Cyclophorus vasconesi JOUSSEAUME 1897: 250, fig.

Type locality. “Le Coca”.

Dimensions. “Diam. maj. 29 mm. min. 25 mm. alt. 15 mm”; figured specimen D 15.5 mm.

Type material. RBINS MT.3829 (1), MT.3838 (1), possible syntypes.

Labels. “Machajj (occident de Pujili)” [Machajj (west of Pujili)], “Puca Jacu, Lampadora cerca Quevedo”.

Type evidence. Material is marked ex Dautzenberg ex Cousin collection, labels in handwriting Jousseume.

Remarks. The locality given by Jousseume is currently named Puerto Francisco de Orrealana. Jousseume explicitly stated his species was based on material from the Cousin collection. Since the labels do not fully match, the material is considered as possible syntypes.

Current systematic position. *Lagocyclus vasconesi* (Jousseume, 1897).

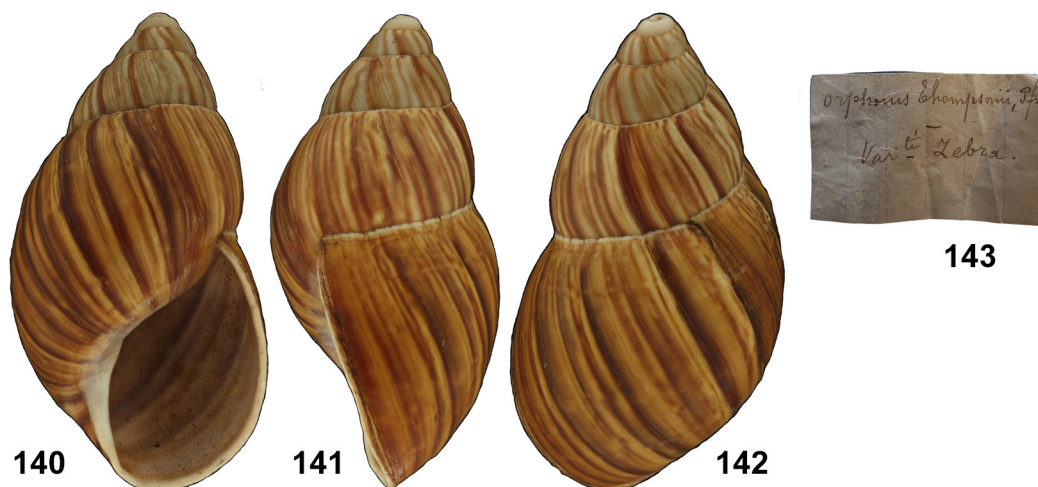
***zebra*, *Orphnus thompsoni* Cousin, 1887
[Orthalicidae]**

Figs 140–143

Orphnus thompsoni var. *zebra* COUSIN 1887: 212.



Figs 134–139. *Lagocyclus vasconesi* (Jousseume, 1897), possible syntype RBINS MT.3829 (D 15.5 mm): 134 – apertural view, 135 – right lateral view, 136 – apical view, 137 – umbilical view, 138 – label by Jousseume, 139 – label by Dautzenberg



Figs 140–143. *Kara thompsonii* (L. Pfeiffer, 1845), lectotype of *Orphnus thompsoni* var. *zebra* Cousin, 1887 RBINS MT.2375 (H 75.0 mm): 140 – apertural view, 141 – right lateral view, 142 – dorsal view, 143 – label by Cousin



Type locality. “près Azagues [Azogues], sur la pente, à environs 2400 m alt.” [near Azogues, on the slope, at about 2400 m altitude].

Dimensions. Not given; figured specimen H 49.0 mm.

Type material. RBINS MT.2375 (lectotype; BREURE 2011: 42); RBINS MT.2376 (9), paralectotypes.

Label. “près Azagues sur la pente à envir. 2400m alt.”.

Type evidence. The material is ex Dautzenberg ex Cousin collection; taxon label written by Cousin, locality label written in Dautzenberg’s handwriting.

Current systematic position. *Kara thompsonii* (L. Pfeiffer, 1845) (BREURE 2011).

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