

Nomenclator of the taxa belonging to the genus *Iberus* MONTFORT, 1810 (Gastropoda: Pulmonata, Helicidae)

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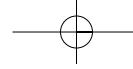
A summary is given of the species-level names in the genus *Iberus*, the representatives being endemic for Spain. Noteworthy results are: *obversa* has to be attributed to Born, 1778 (not 1780); *guiraoana* has to be attributed to Pfeiffer, 1853 (not Rossmaessler, 1854); *carthaginiensis* has to be attributed to Rossmässler, 1853 (not 1854); *loxana* has to be attributed to Schmidt, 1853 (not Rossmässler, 1854); the author of *campesina* is not Ezquerro as often quoted, but Pfeiffer 1846; the lectotype selection of *guiraoana*, *loxana* and *alcarazana* by Martínez-Ortí & Robles (2012) is invalid. For *guiraoana* the lectotype is reselected. The holotype of *laurenti* and a syntype of *partschi* is figured. A nomenclatural overview is given of the hitherto recognized (sub)species of *Iberus* as delineated by the molecular studies of Elejalde and co-workers (2008).

Key words: *Iberus*, Gastropoda, Pulmonata, Helicidae, nomenclature, Spain.

INTRODUCTION

Some of the largest and most beautiful landsnails from Europe belong to the genus *Iberus*. All species are endemic for Spain. The first known representative (*gualtieranus*) was described by Linnaeus in 1758, who did not have seen the species himself, but based his description on a figure published in 1742 by Gualtieri. Although the genus is well-known under malacologists, and even a Spanish malacological journal (*Iberus*) has been named after it, the nomenclature as well as the taxonomic delineation of its representatives is still far from clear. For example, the following misspellings for *gualtieranus* have frequently been used in the literature: *gualteriana*, *gaultieriana* and *gaultiero*. More importantly, the taxonomic/systematic status of the (sub)species has been a subject of controversy for more than a century, and continues even today.

This controversy is nicely illustrated by recent papers of Liétor (2014: 30), who recognized 16 (!) species without sub-



species, and Welter-Schultes (2012: 618), who recognized only two (!) species (*gualtieranus* and *marmoratus*) without subspecies. However, in a series of molecular studies, Elejalde and co-authors (2005, 2008) showed the presence of 11 clades, and that some of these clades can be divided into several lineages. Three of these 11 clades remained unnamed, but 8 of the clades have been assigned to names, as well as some of the recognized lineages. Although we are not in the position to provide an opinion about the taxonomy of the genus *Iberus* at the (sub)species level, our search for the correct nomenclature revealed some unexpected facts. We here present a list of all available names that refer to *Iberus* taxa; we hope that this list provokes further detailed studies on the relationships and boundaries of the various (sub)species, e.g. by means of molecular techniques (such as those by Elejalde and co-workers). These studies are urgently needed, as some of the taxa have narrow distribution areas and are close to extinction.

NOMENCLATOR

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What follows is a list of names (in chronological order) with their primary citations, whereabouts of some of the type material, and notes to clarify misunderstandings. Collections containing type material were abbreviated as follows: MHNG = Muséum d'Histoire Naturelle de la ville de Genève, coll. Bourguignat; MNHN = Museum National d'Histoire Naturelle, Paris; SMF = Senckenberg Museum, Frankfurt am Main; ZMB = Zoologisches Museum, Berlin.

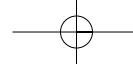
Helix gualtierana Linnaeus, 1758: 770. Type locality: unknown ("..."). Type material: not in the Linnaeus collection, as this species is based on the figure provided by Gualtieri (1742: plate 68 fig. E) (see Hanley, 1855: 366). Note (1): Linnaeus (1758: 770) refers to "Gualt. test. t. 68 f. E", whereas Linnaeus (1767: 1243) refers to "Gualt. test. t. 69 f. E", the latter (69) is a misprint for the former (68). Note (2): first misspelled as *Helix gualteriana* by Gmelin (1791: 3621), who in addition provided a wrong locality ("Habitat terrestris in India, rarissima"). Note (3): other misspellings found in the literature are *gaultieriana* and *gaultiero*.

Helix obversa Born, 1778: 376-377. Type locality: not mentioned. Type material: shells present in Vienna (Brauer, 1878: 180). Note (1): Born refers, as Linnaeus did, to Gualtieri, 1742: pl. 68 fig. E. Note (2): In his second edition, Born (1780: 368) mentioned that the type locality is not known ("Patria ignota"); the shell is figured on plate 13 fig. 12-13. The epithet *obversa* is normally referred as being introduced in 1780, but it was already validly introduced in 1778.

Helicogena alonensis A. Féruccac, 1821: xiv [livr. 9 (Explication des planches)]. Nomen nudum (as there is no description, and as the plate was published later). Mentioned localities: "Alicante" (pl. 39 fig. 1-3, 6); "Du royaume de Valence" (pl. 39 fig. 4-5); "Almeiria" (pl. 39 fig. 7-9). Note (1): the shells from Almeiria represents a taxon that is different from *alonensis* (Martínez-Ortí & Robles, 2012: 103). Note (2): the shell from "Valencia" is labelled in the MNHN-Fér. collection as coming from "Dans les montagnes of Castelnovo près Segorbe" (Martínez-Ortí & Robles, 2012: 104).

Helix (Helicogena) alonensis A. Féruccac, 1821: 31 [livr. 10 = Quarto edition] [Folio edition = livr. 10: 35]. Nomen nudum (no description; it refers to pl. 39 fig. 1-9 and pl. 36A fig. 4 [this last plate was never published; it was replaced by pl. 39B fig. 8], but both plates were published later). Mentioned localities: "Alicante" (= pl. 39 fig. 1-3, 6); "Valence" (= pl. 39 fig. 4-5); "Almérica" (= pl. 39 fig. 7-9). See both notes provided above.

[without a name] A. Féruccac, 1821: pl. 39 fig. 1-9 (shell) [livr. 11]. Type material: lectotype of *alonensis* (by subsequent designation of Martínez-Ortí & Robles, 2012: 104, fig. 2A-C): MNHN-Fér. (from Alicante = the shell depicted on plate 39 fig. 1-2); 15 paralectotypes MNHN-Fér. (Martínez-Ortí & Robles, 2012: 102-104, fig. 2D-F). The type locality of *alonensis* is consequently Alicante (see ICZN Article 76.2). Note (1): it is the publication of this plate (there is no explanation on the plate or covers, so the plate is without a name) that explicitly validates the name as mentioned in the above two publications (see ICZN Article 10.1.1). Note (2): Martínez-Ortí & Robles (2012: 102-14) overlooked that Chevallier (1965: 482) already revised the type material of



alonensis. The shell selected as the lectotype by Martínez-Ortí & Robles is the shell that was mentioned as "Holotype" by Chevallier (but this type designation by Chevallier is not valid as lectotype designation: see ICZN Article 74.5). Note (3): it should be stressed that for a nominal species-group taxon established before 2000 all the specimens of the type series are automatically syntypes if neither a holotype nor a lectotype has been fixed. All syntypes have equal status in nomenclature as components of the name-bearing type (see ICZN Article 73.2). Thus, syntypes are specimens of a type series that collectively constitute the name-bearing type. The name *alonensis* is based on 5 varieties (alpha to epsilon); all are syntypes. Thus, the lots of Almeria (var. ε), although they likely belong to another species, are also syntypes of *alonensis*; they cannot be excluded as syntypes as Martínez-Ortí & Robles (2012: 103) did ("they are excluded from the syntypes of *H. alonensis*"). Since a lectotype is selected from Alicante, the specimens from Almeria become paralectotypes, but have no name-bearing function (ICZN Article 73.2.2).

Helix alonensis –A. Féruccac, 1823: pl. 39B fig. 8 (animal; paralectotype) [livr. 19].

Helicogena marmorata A. Féruccac, 1821: xiv [livr. 9 (Explication des planches)]. Nomen nudum (as there is no description, and as the plate was published later). Type locality: not mentioned.

Helix (Helicogena) marmorata A. Féruccac, 1821: 31 [livr. 10 = Quarto edition] [Folio edition = livr. 10: 35]. Nomen nudum (no description; it refers to pl. 40 fig. 8, but this plate was published later). Type locality: "Les environs de Gibraltar, Gaucin, dans les fentes de rochers".

[without a name] A. Féruccac, 1821: pl. 40 fig. 8 (shell) [livr. 13]. Note: the publication of this plate (no explanation on the plate or covers, so without a name) validates the name as mentioned in the above two publications. Syntypes MNHN/3+3 (Chevallier, 1965: 482).

Helix campesina L. Pfeiffer, 1846: 76-77. Type locality: "His-

pania". Type material: not searched for. Note (1): a syntype has been figured by Pfeiffer (1847: pl. 19 fig. 14-15). Note (2): Ezquerro has been mentioned as the author by Pfeiffer, but the description originates from Pfeiffer; the taxon should therefore be attributed to Pfeiffer (ICZN Article 50.1.1).

Helix guiraoana L. Pfeiffer, 1853: 641. Type locality: "prope Castellon de la Plana regni Valentini Hispaniae" (coll. Rossmässler). Type material: syntypes SMF 7914/2 (Martínez-Ortí & Robles, 2012: 100, 102, fig. 1A-B). Note (1): according to Martínez-Ortí & Robles (2012: 101) the mentioned type locality is wrong; it has been interchanged with that of *alcarazana*. Thus, the real type locality should be "auf der Sierra de Segura bei Alcaraz, entdeckt und mitgetheilt von Guirao" (Rossmässler, 1854: 10). Note (2): the authorship of *guiraoana* is normally attributed to Rossmässler (1854: 11, pl. 63 fig. 799, 799a-c), but the taxon has been described one year earlier (1853) by L. Pfeiffer, who based his description on shells present in the Rossmässler collection. It is therefore likely, that the lot SMF 7914/2 (collected by Guirao) are the syntypes of *guiraoana* indeed. It is however unclear, what the lectotype is. Martínez-Ortí & Robles (2012: 102) mentions the following: "We designate as lectotype the specimen figured by Rossmässler (1854), figures 799, 799a and 799b and as paralectotype the specimen figured with the number 799c (figs. 1A-1B)". However, the shell depicted on figs. 1A-1B, labelled in the legend of figs. 1A-1B as the lectotype of *guiraoana*, is the specimen figured with the number 799c! Thus, the lectotype designation by Martínez-Ortí & Robles is not valid. We herewith designate the shell figured by Martínez-Ortí & Robles on figs. 1A-1B (= fig. 799c) as the lectotype of *Helix guiraoana* L. Pfeiffer, 1853.

Helix carthaginiensis Rossmässler, 1853: 168-169. Type locality: „Um Cartagena“. Type material: not searched for, but the Rossmässler collection is present in the SMF. Note (1): this taxon is normally attributed to Rossmässler (1854: 8-9, pl. 63 fig. 791, 791a-c, 792, 792a-c), but it was inadvertently validly introduced by the same author one year earlier. In fact, Schmidt (1853: 172-173, 174, 175) gives at the same time a valid description as well, but as First Revisors [ICZN Article 24.2] we attribute this taxon to Rossmässler. Note (2):

Rossmässler (1854: 8) specified the type locality of this taxon as follows: "Auf der Sierra da Cartagena, bis herab in die felsigen Thäler unweit der Stadt Cartagena, an und unter Steinen. Die Varietät zwischen Cartagena und Mazarrón". Note (3): the anatomical drawing from Schmidt (1855: pl. 4 fig. 19) is made from a specimen from the original series (but not a syntype).

Helix loxana A. Schmidt, 1853: 173-174, 175. Type locality: not mentioned (ex Rossmässler), but from Schmidt (1855: 19, 20, 21, pl. 4 fig. 20) it becomes clear that the type locality is "Sierra de Loja". Type material: not searched for, but the Schmidt collection is present in ZMB. Note (1): the authorship of *loxana* is normally attributed to Rossmässler (1854: 9-10, pl. 63 fig. 793, 793a-b, 794), but the taxon has been described one year earlier (1853) by Schmidt, who based his description on material (shells, animals) that he obtained from Rossmässler. It is therefore highly questionably, whether the lot SMF 7879/1 (depicted by Rossmässler on fig. 793, 793a and 793b on plate 63) is a syntype of *loxana* (i.e. whether the shell was actually seen by Schmidt, as it is part of the Rossmässler collection). It is this shell that was selected as the lectotype of *loxana* by Martínez-Ortí & Robles (2012: 100, 102, fig. 2G-I). We consider this lectotype selection as not valid. Note (2): Rossmässler (1854: 9) mentions this taxon from "Auf einigen Sierren der Provinz Granada, besonders um Loja. Die Varietät auf der Sierra de Orages bei Colmenar". Note (3): the anatomical drawing from Schmidt (1855: pl. 4 fig. 20) is based on a syntype.

Helix alonensis var. *lorcana* Rossmässler, 1854: 5, pl. 62 fig. 789, 789a-b (shell). Type locality: "Sie kommt auf der Sierra de Caño bei Lorca vor". Type material: not searched for, but the Rossmässler collection is present in the SMF.

Helix alcarazana Rossmässler, 1854: 10, pl. 63 fig. 795, 795a-b (shell). Type locality: "Auf der Sierra de Segura bei Alcaraz, entdeckt und mitgetheilt von Guirao". Type material: syntypes SMF 7915/1 and SMF 7916/1 (Martínez-Ortí & Robles, 2012: 100, 102, fig. 1G-H). Note (1): according to Martínez-Ortí & Robles (2012: 101) the mentioned type locality is wrong; it has been interchanged with that of *guiraoana*.

Thus, the real type locality should be "bei Castellon de la Plana von Guirao entdeckt" (Rossmässler, 1854: 11). Note (2): there are problems with regard to the lectotype selection by Martínez-Ortí & Robles of *alcarazana*. Martínez-Ortí & Robles (2012: 102) mentions the following: "The type series is composed of two syntypes: SMF 7915 and SMF 7916. According to information provided by Dr. Janssen (SMF), the specimen SMF 7915 is labelled as 'Typus' and considered as the original Ic. 795. It matches the size of the Ic. 795 but differs somewhat in the colour pattern. Apparently there is no other specimen better matching Ic. 795 (Janssen, pers. comm. e-mail 16 I 12). Consequently, we designated as lectotype the specimen of the sample SMF 7915, figured by Rossmässler (1854) with the numbers 795, 795a and 795b, and as paralectotype the specimen of the sample 7916, formerly labelled in the collection of the SMF as 'Paratype' (figs. 1F-1G)". However, on figs. 1F-1G the shell is depicted of SMF 7916, and in the legend of figs. 1F-1G it is stated that this is the lectotype. The lectotype designation of Martínez-Ortí & Robles is therefore not valid. Note (3): Guirao has been mentioned as the author by Rossmässler, but the description originates from Rossmässler; the taxon should therefore be attributed to Rossmässler (ICZN Article 50.1.1).

Helix balearica var. *violacea* Rossmässler, 1854: 10, pl. 63 fig. 796 (shell). Type locality: "um Granada. Ich fand sie selbst nicht, sondern erhielt sie nur in wenigen Exemplaren unter *H. alonensis* von einer Schneckenverkäuferin in Granada". Type material: not searched for, but the Rossmässler collection is present in the SMF.

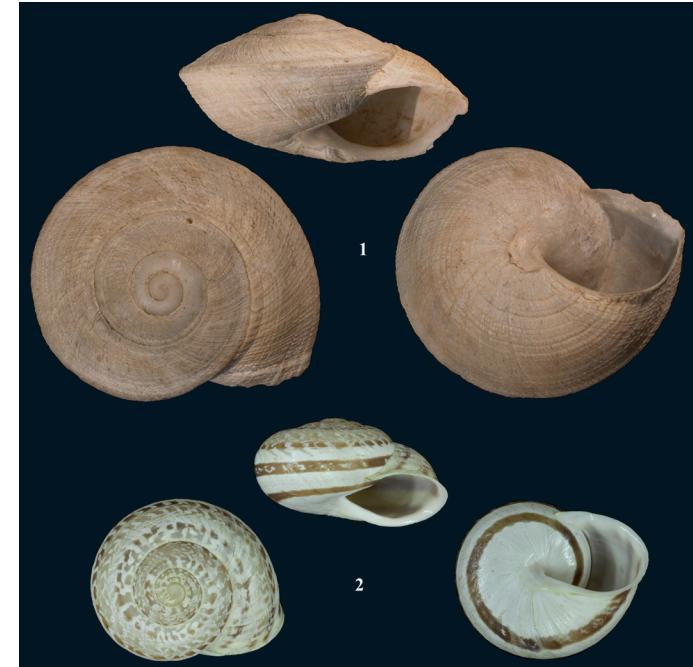
Helix balearica var. *pulchella* Rossmässler, 1854: 10-11, pl. 63 fig. 797, 797a (shell). Type locality: "zwischen Malaga und Velez Malaga an Kalkfelsen, welche wenig über dem Spiegel des benachbarten Meeres erhaben waren". Type material: not searched for, but the Rossmässler collection is present in the SMF. Note: this is a preoccupied name (homonym), and can therefore not be used.

Helix guiraoana var. *angustata* Rossmässler, 1854: 11-12, pl. 63 fig. 798 (shell = lectotype). Type locality: "unter Kalkblöcken nicht weit von der Sierra de los Dientes de la Vieja in der

Provinz Granada". Lectotype (by subsequent designation of Martínez-Ortí & Robles, 2012: 100, 102, fig. 1C-D; Martínez-Ortí & Robles, 2013: fig. 3A-B) SMF 7911 and 1 paralectotype SMF 7912 (Martínez-Ortí & Robles, 2012: 100, 102, fig. 1E-F; Martínez-Ortí & Robles, 2013: fig. 3C). Note (1): this taxon was first mentioned by Schmidt (1853: 174) under the name *Helix guiraoana*. Note (2): according to Martínez-Ortí & Robles (2012: 102) the shells of *angustata* were collected at the type locality (Sierra de los Dientes) by the Murcian naturalist Ángel Guirao Martínez (1817-1890). However, in the text of Rossmässler (1854: 11-12) it was stated that Rossmässler himself collected the shells ("die Varietät fand ich"). It seems therefore likely that the type locality as such is correct, and was not mixed up by Guirao. Note (3): there are several landforms in the province of Granada known as "Sierra de los Dientes de la Vieja". Martínez-Ortí & Robles (2012: 102) visited a place known as Dientes de la Vieja located near of Diezma (Granada), but were not able to collect *angustata*. They concluded that "it cannot be ruled out that the material provided by Guirao to Rossmässler [sic, see above!] comes from other localities of the same name in the province of Granada". However, Schmidt (1853: 174) gave a more precise description of the type locality of *angustata* (under the false name of *guiraoana*), namely "Selten auf Kalkfelsen der S. de los Dientes de la Vieja, zwischen Granada und Dierma". It is the place that Martínez-Ortí & Robles visited. Indeed, a more thorough investigation revealed that the type locality are the heights surrounding the Venta del Molinillo near the Sierra de los Dientes de la Vieja, Diezma, Granada (Martínez-Ortí & Robles, 2013: 187-194).

Helix alonensis var. *minima* A. Schmidt, 1855: 19, pl. 4 fig. 18 (genitals). Type locality: "von der Sierra bei Granada" (ex Rossmässler). Type material: not searched for, but the Schmidt collection is present in ZMB. Note: often referred to in the literature as "var. *minor* Schmidt", which is incorrect.

Helix laurenti Bourguignat, 1870: 95-97, pl. 14 fig. 5-7 (shell). [reprinted 1870: 43-44, pl. 1 fig. 5-7]. Type locality: "habite sur la montagne de Gador, près d'Almeria". Type material: holotype MHNG 15369 (see Fig. 1). Note: the plate (with the engraved name!) was published earlier than the text; the



Figs 1-2. Type specimens of two *Iberus* taxa. 1, *Helix laurenti* Bourguignat, 1870 (holotype MHNG 15369, "Mte. de Gador près d'Almeria" D = 33.6 mm). 2, *Helix partschi* Bourguignat, 1880 (syntype MHNG 18657, "Gibraltar" D = 22.5 mm). Magnification x2, photo: courtesy of I. Richling / E. Neubert, copyright GBIF.CH, MHNG, NMBE.

taxon is therefore solely based on the figure (= the holotype).

Helix partschi Bourguignat, 1880, in Servain: 46-47. Type locality: "recontrée aux environs Malaga et de Gibraltar". Type material: syntype MHNG 18657/1 (see Fig. 2). Note (1): Bourguignat refers to figure 797 of *Helix balearica* var. *pulchella* Rossmässler, 1854; this shell is therefore a syntype of *partschi* as well. Note (2): both the name and the description are delivered by Bourguignat; consequently, he is the author of the taxon (ICZN Article 50.1.1).

Helix bajoi Servain, 1880: 48-49. Type locality: "Alluvions de la Segura près de Murcie, cette espèce doit provenir des montagnes de la haute vallée de la Segura". Note: although the name *bajoi* has been coined by Bourguignat, the descrip-

tion is from Servain; consequently, Servain is the author of the taxon (ICZN Article 50.1.1).

Helix marmorata var. *alba* Jones, 1900: 302. Type locality: "at Gibraltar". Type material: not searched for (based on one specimen only = holotype). Note: this is a preoccupied name (homonym), and can therefore not be used.

Helix gualtieriana umbilicata Kobelt, 1909: 11, pl. 398 fig. 2281 (shell). Type locality: "in der Umgegend von Almeria" (Pallary leg.). Type material: not searched for, but the Kobelt collection is present in the SMF. Note: this is a preoccupied name (homonym), and can therefore not be used.

Helix alonensis pseudocampesina Kobelt, 1909: 11-12, pl. 398 fig. 2282-2283 (shell). Type locality: "Aufenthalt bei los Millares in der Provinz Almeria, von Pallary gesammelt". Type material: not searched for, but the Kobelt collection is present in the SMF.

Helix campesina millarensis Kobelt, 1909: 12, pl. 398 fig. 2284 (shell). Type locality: "Aufenthalt bei los Millares in der Provinz Almeria, von Pallary gesammelt". Type material: not searched for, but the Kobelt collection is present in the SMF.

Helix gualtiero-campesina Serradell, 1912: 378, 381, pl. 5 fig. 4, pl. 6 fig. 15 (shell). Type locality: "Cuevas de Vera (Almeria)" (J. & M. Colominas leg. and J. Rosals leg.) [= Cuevas del Almanzora]. Type material: not searched for.

Iberus gualterianus intermedius C.R. Boettger, 1913: 186, fig. 9 (shell) on page 188. Type locality: "Prov. Almeria". Type material: not searched for.

Iberus gualterianus globulosus C.R. Boettger, 1913: 187, fig. 8 (shell) on page 196. Type locality: "um Almeria". Type material: not searched for.

Iberus alonensis carragines d'Aguilar Amat, 1921: 95. Type locality: "a Catalunya de la la serra de Cardó i de Bràfim" (ex Bofill). Type material: not searched for.

Iberus alonensis rhodopeplus d'Aguilar Amat, 1925: 266. Type locality: "El Muruche, Jaén". Type material: not searched for.

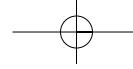
Iberus (Iberus) gualtierianus posthumus F. Haas, 1934: 98, fig. 14-16 (shell). Type locality: "in montibus calcareis circa Mazarrón" (Rossmässler leg., April 1853). Type material: holotype SMF 7887 (= the shell figured by Rossmässler, 1854, Icon., (1) 3 (1/2): pl. 62 fig. 788, 788a-b), paratypes SMF 7887 + 7889.

Iberus rositai de Fez, 1950: 159-162, 3 figg. (shell). Type locality: "Benaoján (Málaga)" (E. de Fez leg. = his nephew; 1 ex.). Type material: holotype Museu Valencià d'istoria Natural 320 (García San Nicolás, 1957: 383, pl. 18 fig. 82a-c; García San Nicolás, 1986: 63; Martínez-Ortí, 2006: 27, fig. 1; Martínez-Ortí & Uribe, 2008: 88 + 3 figg.). Note: collected "on open ground free from cracks or rocky holes" (García San Nicolás, 1986: 63).

Iberus alvaradoi García San Nicolás, 1957: 220-223, 346-350, fig. 14 (distribution), pl. 2 fig. 5 (animal), 6 (shell), pl. 15 fig. 73a-f (genitals), 73g-h (radula), 73i (jaw), pl. 24 fig. 92 (shell), pl. 29 fig. 98 (shell). Type locality: not specified (mentioned from numerous localities). Type material: holotype Museo de Ciencias Naturales de Madrid 27648, and numerous paratypes. Note: the locality of the holotype has not been mentioned in the publication; the type locality could therefore not be determined.

Iberus alcarazanus ortizi García San Nicolás, 1957: 227-228, 368-370, fig. 21 (distribution), pl. 7 fig. 55a-b (shell), pl. 17 fig. 79a-c (genitals), 79d-e (radula), 79f (jaw). Type locality: "Manantial de la Fuente del Rio, en Cabra, provincia de Córdoba, entre las grietas de las rocas". Type material: based on 14 syntypes (a holotype was not selected).

Iberus gualtiero-loxanus García San Nicolás, 1957: 229, 374-376, fig. 23 (distribution), pl. 18 fig. 83a-c (shell). Type locality: "la Sierra de Gádor" (Royo Gómez leg., 1920, 1 ex.). Type material: holotype Museo Nacional de Ciencias Naturales de Madrid 27649 (see also García San Nicolás, 1986: 62-63).



Iberus cobosi Ibáñez & Alonso, 1978: 193-199, fig. 1a-c (shell), 2 (genitals), 3 (jaw), 4-8 (radula). Type locality: "Valle de Abdalajís, Málaga (España), a 480 m de altitud; sus coordenadas U.T.M. son: 30SUF4988". Type material: holotype Dept. Zool. Univ. Granada DZUGRM-3; paratypes: DZU-GRM-4/8, SMF 248532/6, Naturalis-Leiden/6, coll. Cobos/25, coll. Ibáñez+Alonso/80.

Iberus gualtierianus mariae Cobos, 1979: 42-44, map (distribution), fig. 7-8 (shell). Type locality: "Los Alcores de Punta Entinas, Dalias (Almería)". Type material: based on holotype and 160 paratypes. Holotype Museo Nacional de Ciencias Naturales Madrid 15.05/42283, 119 paratypes in Museo Nacional de Ciencias Naturales Madrid 15.05/42283, and 5 paratypes in Museu de Ciències Naturals (Zoologia) de Barcelona MZB 84-1050 (Martínez-Ortí & Uribe, 2008: 86 + 3 figg.).

Iberus gualtierianus ornatissimus Cobos, 1979: 44-45, map (distribution), fig. 5-6 (shell). Type locality: "Barranco Fuerte, Huecija (Almería)". Type material: based on holotype and 60 paratypes. Holotype Museo Nacional de Ciencias Naturales Madrid 15.05/41400, 38 paratypes in Museo Nacional de Ciencias Naturales Madrid 15.05/41400, and 1 paratype in Museu de Ciències Naturals (Zoologia) de Barcelona MZB 84-1050 (Martínez-Ortí & Uribe, 2008: 87 + 3 figg.).

Iberus calaensis Ahuir Galindo, 2013: 6-7, 4 figg. (shell). Type locality: "Cabo Tiñoso, La Azohia, Murcia prov., +300 m.". Type material: holotype Malacologia Mostra Moniale, Cupra Marittima (Italy), paratypes coll. J. Ahuir/9, coll. T. Cossignani/1, coll. D. Jiménez/1, coll. G. Hubrecht/1.

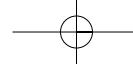
OVERVIEW OF THE CURRENTLY RECOGNIZED (SUB)SPECIES OF *IBERUS*

Below an overview is given of the currently recognized (sub)species of *Iberus*; the enumeration follows the conclusions of the molecular work carried out by Elejalde and co-authors (2005, 2008a-b) and takes into consideration the nomenclatural findings as presented above.

- Iberus alonensis* (A. Féruccac, 1821) (synonyms: *alcarazana* Rossmässler, 1854; *lorcana* Rossmässler, 1854; *bajoi* Servain, 1880; *carraginiensis* d'Aguilar Amat, 1921) [Elejalde et al., 2008b: fig. 4 clade A5]
- Iberus angustatus* (Rossmässler, 1854) [Elejalde et al., 2008a: fig. 4 clade 4]
- Iberus campesinus* (L. Pfeiffer, 1846) (synonyms: *millarensis* Kobelt, 1909) [Elejalde et al., 2008b: fig. 4 clade C3]
- Iberus carthaginiensis carthaginiensis* (Rossmässler, 1853) [Elejalde et al., 2008b: fig. 4 clade A2b]
- Iberus carthaginiensis globulosus* C.R. Boettger, 1913 [Elejalde et al., 2008b: fig. 4 clade A2a]
- Iberus gualtierianus gualtierianus* (Linnaeus, 1758) (synonyms: *obversa* Born, 1778; *umbilicata* Kobelt, 1909) [Elejalde et al., 2008b: fig. 4 clade G1a]
- Iberus gualtierianus mariae* Cobos, 1979 [Elejalde et al., 2008b: fig. 4 clade G1c]
- Iberus gualtierianus ornatissimus* Cobos, 1979 [Elejalde et al., 2008b: fig. 4 clade G1b]
- Iberus gualtierianus laurenti* (Bourguignat, 1870) (synonyms: *intermedius* C.R. Boettger, 1913)
- Iberus guiraoanus* (L. Pfeiffer, 1853) [Elejalde et al., 2008a: fig. 4 clade 1]
- Iberus marmoratus marmoratus* (A. Féruccac, 1821) (synonyms: *partschi* Bourguignat, 1880; *pulchella* Rossmässler, 1854; *alba* Jones, 1900) [Elejalde et al., 2008a: fig. 4 clade 5C]
- Iberus marmoratus cobosi* Ibáñez & Alonso, 1978 [Elejalde et al., 2008a: fig. 4 clade 5A]
- Iberus marmoratus loxanus* (A. Schmidt, 1853) [Elejalde et al., 2008a: fig. 4 clade 5D]
- Iberus marmoratus rositai* de Fez, 1950 (synonyms: *gualtierianus* García San Nicolás, 1957) [Elejalde et al., 2008a: fig. 4 clade 5B]
- Iberus ortizi* García San Nicolás, 1957 [Elejalde et al., 2008a: fig. 4 clade 3]

Note: Elejalde et al., 2008a: fig. 4 clade 2 = undescribed; Elejalde et al., 2008b: fig. 4 clade A4 = undescribed; Elejalde et al., 2008b: fig. 4 clade A6 = undescribed.

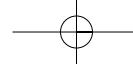
The identity of the following names is unknown to us and needs to be further investigated to clarify its exact position



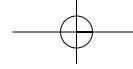
within *Iberus: violacea* Rossmässler, 1854; *minima* A. Schmidt, 1855; *pseudocampesina* Kobelt, 1909; *gaultierocampesina* Serradell, 1912; *rhodopeplus* d'Aguilar Amat, 1925; *posthumus* F. Haas, 1934; *alvaradoi* García San Nicolás, 1957; *calaensis* Ahuir Galindo, 2013.

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