

**Nomenclatural notes on a *Cecilioides* species of the Italian
and Swiss Alps
(Gastropoda, Pulmonata, Ferussaciidae)**

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It is argued that the name *Cecilioides veneta* (Strobel, 1855) has to be used for a species which has in the past been referred to as *C. aciculoides* or *C. janii*.

Key words: Gastropoda, Pulmonata, Ferussaciidae, *Cecilioides*, Italy, Switzerland, nomenclature.

DATA AND DISCUSSION

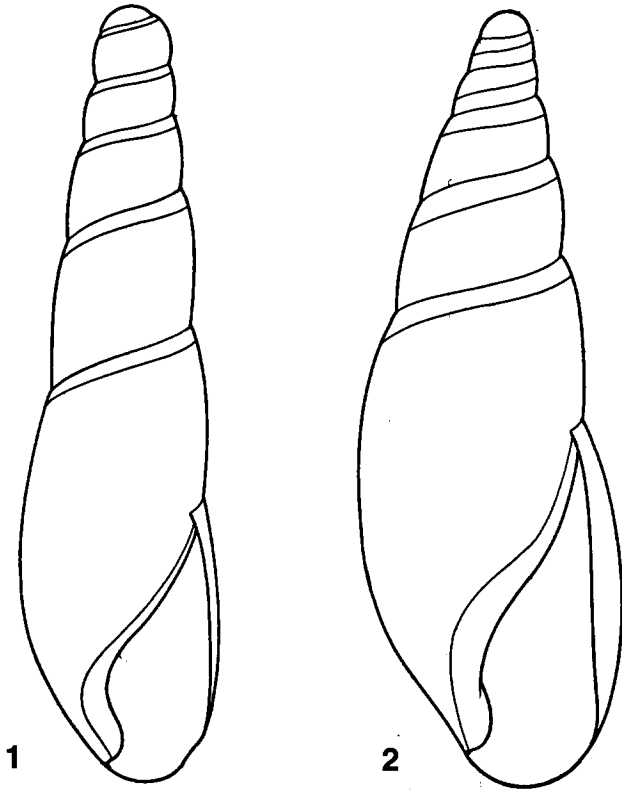
In northern Italy and the southernmost part of Switzerland (Tessin) two species of the genus *Cecilioides* A. Férussac, 1814, occur (Ferussaciidae Bourguignat, 1883). The most common one, *C. acicula* (O.F. Müller, 1774), is well-known and wide-spread throughout Europe (with the exception of Scandinavia, where it is living only in the southern tip of Norway and Sweden). The nomenclature of the second, far more local species has been the subject of much dispute. This species has a shell similar to that of *C. acicula*, but larger and relatively broader (5-7 x 1.9 mm instead of 4.5-5.5 x 1.2 mm), and with the aperture forming about half instead of about a third of the total height. In addition, the columella is clearly more truncate at the base (figs 1-2; Kerney & Cameron, 1979: 149-150; Falkner, 1990: 169, figs 1, 5; Turner et al., 1998: 237-238). In the more recent literature this species is known under the names *C. aciculoides* (De Cristofori & Jan, 1832) (e.g. Mermod, 1930: 371) or *C. janii* (De Betta & Martinati, 1855) (e.g. Giusti 1976: 238; Kerney & Cameron, 1979: 150; Boato et al., 1989: 476; Falkner, 1990: 168; Manganelli et al., 1995: 22, 45; Turner et al., 1998: 238) (sometimes misspelled as *janii*).

Columna aciculoides was poorly diagnosed by De Cristofori & Jan (1832: 2) from "It. bor."; it was redescribed by De Betta (1852: 75-77, pl. 1 fig. IIIa-b) who obtained material from Jan himself. From De Betta's paper it is clear that *Columna aciculoides* De Cristofori & Jan, 1832, is based on shells of the small and slender, wide-spread species; consequently, this nominal taxon is a junior synonym of *Buccinum acicula* O.F. Müller,

1774. Unfortunately, De Betta (1852: 73-75) interpreted the small species as *aciculoides* and the larger, relatively broader one as *acricula*, thus causing considerable confusion. The same nomenclature was used by De Betta & Martinati (1855: 57-59). Nine years later, De Betta (1864) presented an excellent critical review of the synonymy of the two species; he now correctly used *acricula* (with *aciculoides* as its synonym) for the wide-spread species, and *jani* for the more local one. This nomenclature was adopted by Giusti (1976: 231-244) and subsequently followed by other authors.

The epithet *jani* was first mentioned by De Betta & Martinati (1855: 59) and later on that year by Strobel (1855b: 172) in the combination *Achatina jani*. The paper of Strobel (1855b) appeared after that of De Betta & Martinati (1855), as Strobel (1855b: 174) refers to the former ("Während diese Zeilen im Satze begriffen waren, erhielt ich den: "Catalogo dei molluschi terrestri e fluviatili delle province venete" der Herren de Betta und Martinati"). The epithet *jani* was proposed for the larger *Ceciloides* species. However, digging in the old literature revealed that the first available name for the large species is *Achatina veneta* Strobel, 1855. This name turned up in the publication of Strobel (1855a: 137) as a synonym of *aciculoides* auct. (non De Cristofori & Jan) and *acricula* sensu De Betta, 1852 (non O.F. Müller), both of which refer to the large species. The epithet was made available (International Code of Zoological Nomenclature, fourth edition, 1999, articles 11.6.1 and 50.7) by the papers of e.g. Gredler (1856: 91), Strobel (1857: 248), Küster (1870: 93), and Riezler (1929: 161). The paper of Strobel (1855a) was published in the 9th part of volume 2 of the "Giornale di Malacologia". The publication date of this part is not, as cited frequently, 1854, but February 1855 (see page 144 of part 9: "Dispensato nel 2.° mese del 1855"). The introduction of De Betta & Martinati was written January 1855 (see page 10), but was published, according to the title page, February 1855. Thus, both *veneta* and *jani* were introduced in February 1855. However, *veneta* has priority over *jani*, since De Betta & Martinati (1855: footnote on page 59 and 60) refer to the publication of Strobel ("Mentre trovavasi in corso di composizione il presente foglio di stampa ci pervenne il N. IX. Anno II. del Giorn. Malac. del Sig. Strobel, il quale dà a pag. 136 il seguito della enumerazione dei Molluschi raccolti in Dalmazia dal Sig. Cristoforo Belloti"). The epithet *veneta* cannot be suppressed in favour of *jani*, as both conditions of Article 29.3.1 are not met: *veneta* has been used as valid after 1899 by e.g. Pilsbry (1908: 23) and Thorson (1930: 229), and *jani* was used in less than 25 publications over the last 50 years. Therefore, the correct name for the species under consideration is *Ceciloides veneta* (Strobel, 1855).

The taxonomy of the Mediterranean *Ceciloides* species is in a chaotic state. A revision of this speciose(?) genus is beyond the scope of this paper. Pilsbry (1908: 4) stated that the "European species of *Caeciloides* have no doubt been multiplied beyond reason, yet without a critical study of the types it is impossible to say how many recognizable races exist. (...) It is a work which properly belongs to some European student". Although almost a century elapsed by now, so far no student has tackled the job. In order to fix the identity of *veneta*, one of the oldest names within the genus, the designation of a lectotype is necessary. In accordance with article 72.4.4 of the International Code of Zoological Nomenclature (fourth edition, 1999), we select the specimen figured by Giusti (1976: 236, fig. 29A) as the lectotype of *Achatina veneta* Strobel, 1855. This specimen is preserved in the collection of De Betta housed in the Museo di Storia Naturale di Verona. The same specimen is also designated here as the lectotype of *Achatina jani* De Betta & Martinati, 1855. This makes *jani* a junior objective synonym of *veneta*. Although no exact locality is given on the label, we assume that the material originates from



Figs 1-2. *Cecilioides* spec. from northern Italy. 1, *C. acicula* (actual height 4.5 mm); 2, *C. veneta* (actual height 6.8 mm). Both specimens originate from sympatric populations found in the public olive yard of Torbole at the northern border of the Lago di Garda, province of Trento, Italy (UTM: PR48); E. Gittenberger leg.; collection Nationaal Natuurhistorisch Museum, Leiden.

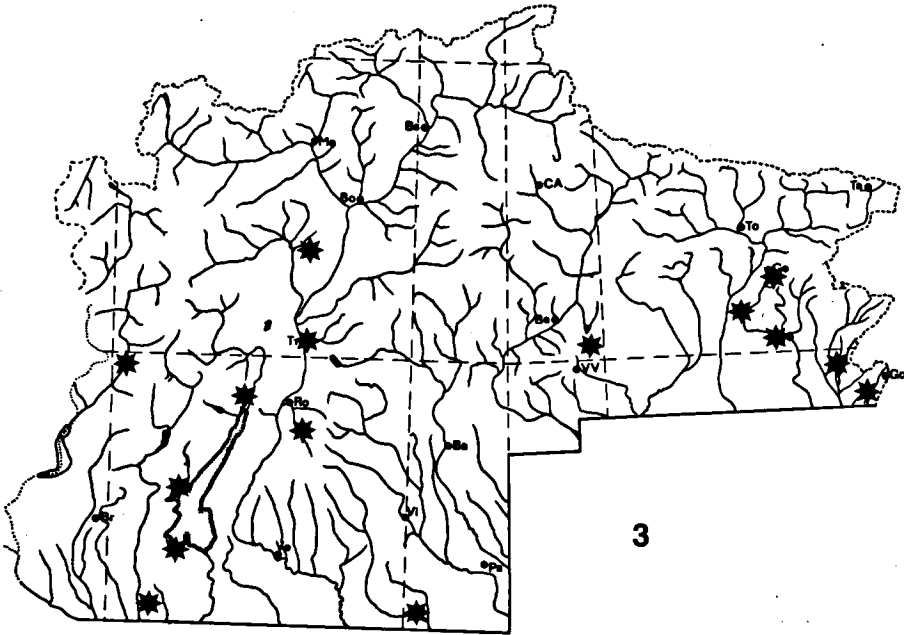


Fig. 3. Distribution of *C. veneta* in northeast Italy (with UTM codes). The map is based on literature data and collection records. BRESCIA. PR09: Breno (Adami, 1876: 52 – sub *aciculoides*). PR25: Portese (coll. Falkner, Hörlkofen). PR23: Desenzano del Garda (coll. Falkner, Hörlkofen). GORIZIA. UL88: Savogna d'Isonzo, deposition F. Isonzo (Boato et al., 1989: 477 – sub *jani*). MANTOVA. PR11: Castel Goffredo (coll. Falkner, Hörlkofen). PADOVA. QR11: Battaglia Terme (coll. Bank, Hoofddorp). TRENTO. PR48: near Nago (Gredler, 1886: 135 – sub *veneta*); Riva del Garda (Gredler, 1856: 92 – sub *hohenuarti*); western part Riva del Garda (coll. Nationaal Natuurhistorisch Museum, Leiden); Torbole, public olive yard, 85 m (coll. Nationaal Natuurhistorisch Museum, Leiden). PR67: Vallarsa (Gredler, 1880: 88 – sub *veneta*). PS60: Trento (Küster, 1870: 95 – sub *gredleri*); Trento, le Laste (Gredler, 1859: 289 – sub *veneta*). TREVISO. TM90: between Serravalle and San Floriano, 160 m (coll. W.J.M. Maassen, Duiwendrecht). PS63: Sanzeno (De Betta, 1852: 75 – sub *acricula*). UDINE. UL79: 1 km E. Buttrio, 120 m (Bank, 1985: 68 – sub *jani*). UM41: Villanova (coll. W. Fauer, Winterstein). UM50: Fagnana (Pirona, 1865: 688 – sub *jani*). UM52: Gemona del Friuli (Pirona, 1865: 688 – sub *jani*).

Sanzeno (a small village situated in the Val di Non east of Cles in the province of Trento, Italy), the locality that was mentioned by De Betta (1852: 75). The records known for *C. veneta* in northeast Italy are shown in fig. 3. The exact distribution in the Mediterranean area is still a matter of investigation. The species probably occupies large parts of Italy and the former Yugoslavia.

SYNONYMIES

Cecilioides (Cecilioides) acicula (O.F. Müller, 1774) (fig. 1)

Buccinum acicula O.F. Müller, 1774: 150. Type locality: Germany, Thüringen, Thangelstedt near Weimar.

Columna aciculoides De Cristofori & Jan, 1832: 2. Type locality: "It. bor." (= Italia borealis).

Achatina aciculoides – De Betta, 1852: 75-77, pl. 1 figs IIIa-b; De Betta & Martinati, 1855: 57; Gredler, 1856: 90-91.

Glandina acicula – De Betta, 1864: 18-23, pl. 1 figs 1-3.

Cecilioides acicula – Kerney & Cameron, 1979: 149, map 171; Falkner, 1990: 168, figs 1, 9.

Cecilioides (Cecilioides) veneta (Strobel, 1855) (figs 2-3)

Achatina veneta Strobel, 1855a: 137. Lectotype (design. nov.): the shell figured by Giusti (1976: 236 fig. 29A) = Museo di Storia Naturale di Verona, collection De Betta. Type locality: Italy, prov. Trento, Val di Non, Sanzeno.

Achatina jani De Betta & Martinati, 1855: 59. Lectotype (design. nov.): the shell figured by Giusti (1976: 236 fig. 29A) = Museo di Storia Naturale di Verona, collection De Betta. Type locality: Italy, prov. Trento, Val di Non, Sanzeno.

Achatina [Caecilianella] gredleri Küster, 1870: 94-95. Type locality: "Trient" (= Italy, prov. Trento, Trento).

Achatina acicula – De Betta, 1852: 73-75, pl. 1 figs IIa-b; De Betta & Martinati, 1855: 57; Gredler, 1856: 91.

Achatina jani – Strobel, 1855b: 172.

Glandina acicula var. *veneta* – Strobel, 1857: 248.

Glandina jani – De Betta, 1864: 23-26, pl. 1 figs 4-6.

Caecilioides aciculoides – Mermod, 1930: 371-372.

Cecilioides jani – Kerney & Cameron, 1979: 150, map 172; Giusti, 1976: 238-244, figs 29A-M, Q, Z-Z₂, 30A-H, K-N, O-S?, U-X; Boato et al., 1989: 476-477.

Cecilioides jani – Falkner, 1990: 168, fig. 5.

Cecilioides (Cecilioides) jani – Turner et al., 1998: 238.

REFERENCES

- ADAMI, G.B., 1976. Molluschi terrestri e fluviatili viventi nella Valle dell'Oglio ossia nelle Valli Camonica, di Scalve e di Borlezza spettanti alle provincie di Brescia e Bergamo. – Atti della Società Veneto-Trentina di Scienze Naturali 5: 7-95.
- BANK, R.A., 1985. Verslag van een verzamelreis in noordoost-Italië. – De Kreukel 21: 57-78, pls 11-12.
- BETTA, E. DE, 1852. Malacologia terrestre e fluviatile della Valle di Non nel Tirolo italiano. Parte I. Molluschi terrestri: 1-144, 1 plate. Verona.
- , 1864. Esame critico intorno a tre molluschi del genere *Glandina* Schumacher. – Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti (3) 9: 530-560, 1 plate [separate 1-28, 1 plate].
- , & P. MARTINATI, 1855. Catalogo dei molluschi terrestri e fluviatili viventi nelle provincie Venete: 1-103, 1 plate. Verona.
- BOATO, A., M. BODON, M.M. GIOVANELLI & P. MILDNER, 1989. Molluschi terrestri delle Alpi sudorientali. – Lavori della Società Italiana di Biogeografia, Nuova Serie 13 [1987]: 429-528.
- CRISTOFORI, J. DE, & G. JAN, 1832. Mantissa in secundam partem catalogi testaceorum exstantium in collectione quam possident De-Cristofori et Jan exhibens characteres essentialia specierum molluscorum terrestrium et fluviatilium ab eis enunciatarum in prima parte ejusdem catalogi: 1-4. Parma.
- FALKNER, G., 1990. Binnenmollusken. In: R. FECHTER & G. FALKNER, eds, Weichtiere. Europäische Meeres- und Binnenmollusken. Steinbachs Naturführer 10: 112-280. München.
- GIUSTI, F., 1976. Notulae Malacologicae XXIII. I Molluschi terrestri salmastrici e di acqua dolce dell'Elba, Giannutri e scogli minori dell'Arcipelago Toscano. Conclusioni generali sul popolamento malacologico dell'Arcipelago Toscano e descrizione di una nuova specie (Studi sulla riserva naturale dell'Isola di Montecristo. IV). – Lavori della Società Italiana di Biogeografia, Nuova Serie 5 [1974]: 99-355.

- GREDLER, V.M., 1856. Tirol's Land- und Süßwasser-Conchylien. I. Die Landconchylien. – Verhandlungen des zoologisch-botanischen Vereins in Wien 6: 25-162, pl. 2.
- , 1859. Tirol's Land- und Süßwasser-Conchylien. II. Die Süßwasser-Conchylien. – Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien 9: 213-308, pl. 5.
- , 1880. Excursion nach Vallarsa in Welschtirol. – Nachrichtenblatt der Deutschen Malakozoologischen Gesellschaft 12: 85-89.
- , 1886. Excursion in's Val Vestino. – Nachrichtenblatt der Deutschen Malakozoologischen Gesellschaft 18: 134-140.
- KERNEY, M.P., & R.A.D. CAMERON, 1979. A field guide to the land snails of Britain and north-west Europe: 1-288. London.
- KÜSTER, H.C., 1870. Die Binnenmollusken-Fauna von Triest, Istrien, Dalmatien und Montenegro. II. – Bericht der Naturforschenden Gesellschaft zu Bamberg 10: 86-101.
- MANGANELLI, G., M. BODON, L. FAVILLI & F. GIUSTI, 1995. Gastropoda Pulmonata. In: A. MINELLI, S. RUFFO & S. LA POSTA, eds, Checklist delle specie della fauna Italiana. Fascicolo 16: 1-60. Bologna.
- MERMOD, G., 1930. Catalogue des invertébrés de la Suisse. Fascicule 18. Gastéropodes: I-XII, 1-583. Genève.
- MÜLLER, O.F., 1774. Vermium terrestrium et fluviatilium, sue animalium infusoriorum, helminthicorum, et testaceorum, non marinorum, succincta historia auctore Volumen alterum: I-XXXVI, 1-214, 1-2, index. Havniae & Lipsiae [Copenhagen & Leipzig].
- PILSBRY, H.A., 1908. Manual of Conchology. Second series: Pulmonata. Vol. XX. *Cacilioides*, *Glossula* and *Partulidae*. Part 77: 1-64, pls 1-10. Philadelphia.
- PIRONA, A., 1865. Prospetto dei molluschi terrestri e fluviatili finora raccolti nel Friuli. – Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti (3) 10: 675-708.
- RIEZLER, H., 1929. Die Molluskenfauna Tirols. – Veröffentlichungen des Museum Ferdinandeum in Innsbruck 9: 1-215.
- STROBEL, P., 1855a. Molluschi terrestri raccolti da Cristofori Bellotti nel 1853 in Dalmazia (continuazione). – Giornale di Malacologia 2 [1854] (9): 136-141.
- , 1855b. Beitrag zur Mollusken-Fauna von Tirol. Uebersicht der von den Gebrüdern Josef und Peregrin von Strobel in Tirol gesammelten Land-Schnecken, nebst Angabe ihrer Fundorte und ihrer Nord- und Süd-Grenze gegen das Donau- und Po-Thal. – Verhandlungen des zoologisch-botanischen Vereins in Wien 5: 153-176.
- , 1857. Essai d'une distribution orographico-géographique des mollusques terrestres dans la Lombardie. – Memorie della Reale Accademia di Scienze di Torino (2) 18 [1859]: 233-280, maps 1-2 [separate 1857: pp. 1-52, maps 1-2].
- THORSON, G., 1930. Zoogeografische und ökologische Studien über die Landschnecken in den Dolomiten. – Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere 60: 85-238.
- TURNER, H., J.G.J. KUIPER, N. THEW, R. BERNASCONI, J. RÜETSCHI, M. WÜTHRICH & M. GOSTELI, 1998. Fauna Helvetica 2. Atlas der Mollusken der Schweiz und Liechtensteins: 1-527. Neuchâtel.