

Case 3087

***Hydrobia* Hartmann, 1821 and *Cyclostoma acutum* Draparnaud, 1805 (currently *Hydrobia acuta*; Mollusca, Gastropoda): proposed conservation by replacement of the lectotype of *H. acuta* with a neotype; *Ventrosia* Radoman, 1977: proposed designation of *Turbo ventrosus* Montagu, 1803 as the type species; and HYDROBIINA Mulsant, 1844 (Insecta, Coleoptera): proposed emendation of spelling to HYDROBIUSINA, so removing the homonymy with HYDROBIIDAE Troschel, 1857 (Mollusca)**

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Abstract. The purpose of this application is to stabilise the usage of the name *Hydrobia* Hartmann, 1821 for a genus of prosobranch brackish-water gastropods. At present the type species, *Cyclostoma acutum* Draparnaud, 1805, is typified by a lectotype which represents another species, *Turbo ventrosus* Montagu, 1803. It is proposed that the lectotype be replaced by a neotype which accords with the established understanding of *H. acuta*. *Ventrosia* Radoman, 1977 was based on *Helix stagnorum* Gmelin, 1791 but recognition of this nominal species as the type would render the generic name a junior subjective synonym. It is likely that Radoman misidentified Gmelin's taxon and it is proposed that *Turbo ventrosus* be designated the type species to maintain existing usage of *Ventrosia*. The family-group name HYDROBIIDAE Troschel, 1857 (Mollusca) is a junior homonym of HYDROBIINA Mulsant, 1844 (Insecta). The names relate, respectively, to a gastropod family of some 100 genera and more than 1000 Recent species occurring almost world wide and to a subtribe of five coleopteran genera (family HYDROPHILIDAE). It is proposed that the homonymy should be removed by emending the stem of the generic name *Hydrobius* Leach, 1815, on which the insect family-group name is based, to give HYDROBIUSINA, while leaving the mollusc name (based on *Hydrobia*) unchanged.

Keywords. Nomenclature; taxonomy; Gastropoda; Coleoptera; *Hydrobia*; *Hydrobius*; *Ventrosia*; *Hydrobia acuta*; *Hydrobia ventrosa*; *Ventrosia ventrosa*; HYDROBIIDAE; HYDROPHILIDAE; HYDROBIUSINA.

1. The mollusc genus *Hydrobia* Hartmann, 1821, its type species *Cyclostoma acutum* Draparnaud, 1805, and the family HYDROBIIDAE Troschel, 1857, were described long ago and have been much cited in the literature but there has been continuing discussion on their taxonomic and nomenclatural status. The HYDROBIIDAE comprise a well known and very large family of mainly non-marine prosobranch gastropods of some 100 genera and more than 1000 Recent species occurring virtually world wide (see Kabat & Herschler, 1993, p. 1).

2. In 1951 A.E. Ellis (BZN 2: 119–125) proposed an addition to the Official List of 47 names for non-marine mollusc genera. Most were subsequently placed on the List (Opinion 335, March 1955) but among those not accepted were eight names, including *Hydrobia* Hartmann, 1821, which were set aside pending further study. Many years later G. Rosenberg and G.M. Davis submitted (BZN 47: 104–109, June 1990) an application which, although primarily concerned with the family groups RISSOIDAE Gray, 1847 and TRUNCATELLIDAE Gray, 1840, included proposals to place on Official Lists the names HYDROBIIDAE, *Hydrobia* and *Cyclostoma acutum*. These last three names were subsequently withdrawn from the case for further consideration (see Opinion 1664, March 1992).

3. Draparnaud (1805, p. 40, pl. 1, fig. 23) established the nominal species *Cyclostoma acutum*. He described and illustrated the taxon but did not mention specimens or give an indication of locality within France. Hartmann (1821a, p. 258) included *C. acutum*, *Hydrobia thermarum* (sic; a misspelling of *Turbo thermalis* Linnaeus, 1758, now placed in the hydrobiid genus *Belgrandia* Bourguignat, 1869), and '*diaphana*' (a nomen nudum) in the new genus *Hydrobia*, rendering the generic name available, and later (1821b, pp. 47–48; see Opinion 344, pp. 324–326, June 1955) described the genus. Gray subsequently (1847, p. 151) designated *C. acutum* as the type species of *Hydrobia*.

4. The status of *Hydrobia acuta* has remained controversial because of the impossibility of correct determination in the absence of anatomical information. The original description (including fig. 23 of pl. 1) by Draparnaud does not contain any feature permitting unambiguous identification. Boeters (1984) was unable to locate type material of *H. acuta* in what remains of Draparnaud's collection at the Naturhistorisches Museum in Vienna, although there were 78 syntypes in 1894 (see Locard, 1895, p. 20). K. Edlinger (personal communication, March 1996) recently found two series of syntypes in Vienna, one with 11, the other with 62, shells. They had been on loan until 1989 and this is presumably the reason why Boeters did not find them. Three additional syntypes were given to Bischof von Hohenwarth by the Museum in Vienna before 1894 (see Locard, 1895), but the fate of this material is unknown.

5. Radoman (1977) was the first modern author to revise *Hydrobia acuta*. He assumed that Draparnaud, who lived in Montpellier, had collected his hydrobiid material in one of the lagoons south of the town and (p. 207) gave the type locality as 'Étang du Prévost, Palavas, französische Mittelmeerküste'. Radoman recognized *Hydrobia acuta* as having a shell with flat (not convex) whorls and males with a large fan-like lobe at the apex.

6. Boeters (1984, p. 4, pl. 1a, fig. 1) selected a lectotype for *Hydrobia acuta* from two putative syntypes found at the Museum National d'Histoire Naturelle in Paris. He regarded them as syntypes because when Dollfus (1912, pl. 4, figs. 5–8) figured them he wrote '*Hydrobia acuta* Draparnaud sp. (types: Muséum de Vienne)' in the caption; whether they were actually original specimens is impossible to determine. Boeters compared the lectotype with recent material from the Étang du Prévost near Palavas-les-Flots (the type locality as given by Radoman, 1977) and recognized one of the two species living in the Étang as corresponding to the lectotype, namely that with males having an elongated, pointed penis with a small lateral lobe approximately half way from the base to the apex. Unfortunately this is *Turbo ventrosus*

Montagu, 1803 (p. 317, pl. 12, fig. 13), described on shells from 'the Kentish coast, at Folkstone and Sandwich', and defined by the lectotype (catalogue no. BMNH 197872) designated by Bank, Butot & Gittenberger (1979, p. 57, fig. 3) from among 13 syntypes, all from Sandwich, in the Natural History Museum, London. Montagu's name was proposed in synonymy and is available under Article 11e of the Code; the species is currently placed in *Hydrobia* or in *Ventrosia* Radoman, 1977 (see para. 10 below). Boeters (1984) recorded the other species in the Étang, namely *Hydrobia acuta* in the sense of Radoman (1977), as *Hydrobia* sp.

7. Giusti & Pezzoli (1984, p. 124, footnote 13) originally claimed that the shells designated as lectotype and paralectotype of *Hydrobia acuta* could be identified as *Hydrobia acuta* as perceived by Radoman (1977) by virtue of their flat (not convex) whorls. However, the upper part of the spire of the lectotype was encrusted, preventing observation of the convexity of the whorls and the depth of the sutures, characters useful for determining species of *Hydrobia*. With the encrustations now removed the convexity of the whorls and depth of the sutures suggest that it belongs to *H. ventrosa* (Montagu, 1803). On the other hand, the paralectotype can clearly be identified as *Hydrobia acuta* sensu Radoman (1977). The refund type material in the Naturhistorisches Museum in Vienna also includes both species.

8. Following Radoman (1977) all authors (except Boeters, 1984; 1988, pp. 254–255, fig. 5) who have cited *Hydrobia acuta* have interpreted it in the same way (see, for example, Radoman, 1983; Giusti & Pezzoli, 1984; Cesari, 1988; Sabelli, Giannuzzi-Savelli & Bedulli, 1990, 1992; Haase, 1993; Bodon, Manganelli, Favilli & Giusti, 1995; Giusti, Manganelli & Schembri, 1995; Cachia, Mifsud & Sammut, 1996; Giannuzzi-Savelli, Pusateri, Palmeri & Ebreo, 1997; and Hoeksema, 1998). Recognition of Boeters's (1984) lectotype designation would mean that the name *H. acuta* (Draparnaud, 1805) would become a junior subjective synonym of *H. ventrosa* (Montagu, 1803) and a new name would be required for *H. acuta* as currently understood. Moreover, if the proposed designation of *ventrosa* as the accepted type species of *Ventrosia* Radoman, 1977 is approved by the Commission (see para. 10 below), recognition of *ventrosa* as a senior synonym of *acuta* would render the name *Hydrobia* a senior synonym of *Ventrosia* and a new name would be needed for the much-used *Hydrobia* of authors. These changes would cause much unnecessary confusion.

9. In order to settle this problem, and in view of the taxonomic and nomenclatural importance of this taxon, we propose that the current understanding of the name *H. acuta* be conserved by setting aside the type designation of Boeters (1984) and designating a neotype in accord with the earlier and more widely accepted use of the name and with exact locality data. Since this hydrobiid species is most easily identified by male anatomical characters, a male specimen has been selected as the neotype. The proposed neotype (a shell and anterior portion of body with penis) was collected in the Étang du Prévost near Palavas-les-Flots, Hérault, France (the type locality as restricted by Radoman, 1977) and is deposited in the Naturhistorisches Museum in Vienna (catalogue no. 90616). A full description and illustrations of this specimen were given by Giusti, Manganelli & Bodon (1998).

10. In 1977 Radoman (p. 208) established the genus *Ventrosia* with four included species, among them *Helix stagnorum* Gmelin, 1791 (p. 3653) which he designated as

the type species. *H. stagnorum* is a replacement name for *Turbo stagnalis* Baster, 1765 (pp. 77, 97, index, pl. 7, fig. 4a; described from the Kaaskenswater, near Zierikzee, The Netherlands) which was no doubt proposed to remove the secondary homonymy with *Helix stagnalis* Linnaeus, 1758 (currently *Lymnaea stagnalis*) that occurred within *Helix* in Linnaeus (1767, pp. 1248, 1249). Bank, Butot & Gittenberger (1979, p. 54), Giusti & Pezzoli (1984, p. 131) and Haase (1993, p. 390) considered that Radoman's (1977) use of the name *H. stagnorum* was not that of Gmelin (1791, i.e. *Turbo stagnalis* Baster) but that it actually represented *T. ventrosus* Montagu, 1803 and, indeed, Radoman (1977, p. 209, pl. 21, figs. 11–13; 1979, p. 204) had recorded *H. stagnorum* 'Gmelin, 1791' as a senior synonym of *T. ventrosus*. Bank et al. (1979) considered the two species to be distinct and designated a lectotype for *T. ventrosus* (see para. 6 above) and (1979, p. 52, fig. 1) a neotype for *Helix stagnorum* (catalogue no. 55361 in the Nationaal Natuurhistorisch Museum, Leiden) which separated them. The species have since been placed in different subfamilies (HYDROBIINAE and LITTORIDININAE respectively; see Giusti & Pezzoli, 1984, pp. 131, 140; Smith & Heppell, 1991, pp. 20 and 82). Bank & Butot (1984, p. 10) placed *H. stagnorum* in *Semisalsa* Radoman, 1974, and Giusti & Pezzoli (1984, p. 140) included *Semisalsa* in the genus *Heleobia* Stimpson, 1865, at the same time as adopting *Ventrosia* Radoman, 1977 for some of the species, including *T. ventrosus* Montagu, hitherto placed in *Hydrobia*. Falniowski (1987), Davis, McKee & Lopez (1989) and Haase (1993) retained *T. ventrosus* in *Hydrobia* but a number of recent authors (Cesari, 1988; Sabelli, Giannuzzi-Savelli & Bedulli, 1990, 1992; Cachia, Mifsud & Sammut, 1996; Giannuzzi-Savelli, Pusateri, Palmeri & Ebreo, 1997, for example) have invalidly treated *ventrosus* as the type species of *Ventrosia* and adopted the latter as a distinct genus. In order to maintain the current usage of *Ventrosia* Radoman, 1977 in the HYDROBIINAE we now propose that *Turbo ventrosus* Montagu, 1803 be designated the type species of the genus.

11. The mollusc family group HYDROBIAE was established by Troschel (1857, p. 106; see Robertson, 1957, p. 137 for the date of publication) and included five nominal genera, among them *Hydrobia* Hartman, 1821. The name was emended to HYDROBIINAE by Stimpson (1865) and adopted at family rank by Fischer (1885, p. 723). Newton & Thayer (BZN 47: 286–287, December 1990) pointed out that HYDROBIIDAE Troschel, 1857 is a junior homonym of HYDROBIINAE Mulsant, 1844 (p. 116; type genus *Hydrobius* Leach, 1815), a name which has been in use in the Insecta (Coleoptera) for either a tribe or a subfamily of the HYDROPHILIDAE. These authors noted that at the higher rank the subfamily HYDROBIINAE in Coleoptera includes 'about 30 genera and over 700 described species', and that 'since we are not familiar with available junior synonyms or other potential solutions concerning the use of HYDROBIIDAE in Mollusca we refrain from making any specific proposal here, and refer this problem to malacologists for further action'. Kabat & Herschler (1993, p. 28) recorded that in recent publications (Hansen, 1991, pp. 160–164, 295; Newton & Thayer, 1992, p. 83) (see also Hansen, 1995, pp. 335, 342) the insect name has been used for a subtribe within the HYDROPHILIDAE which comprises only five genera. In comparison, the gastropod name is used for a large and well-known family which includes over 100 valid genera (see para. 1 above). We therefore propose that the homonymy between the insect and the mollusc family-group names should be removed by emending the insect subtribe name to HYDROBIUSINA, while leaving the

mollusc name unaltered. The name *Hydrobius* Leach, 1815, and that of the type species of the genus *Dytiscus fuscipes* Linnaeus, 1758, were placed on Official Lists in Opinion 1577 (March 1990).

12. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers:
 - (a) to set aside all previous type fixations for the nominal species *Cyclostoma acutum* Draparnaud, 1805 and to designate as neotype the specimen no. 90616 in the Naturhistorisches Museum in Vienna;
 - (b) to set aside all previous type fixations for the nominal genus *Ventrosia* Radoman, 1977 and to designate *Turbo ventrosus* Montagu, 1803 as the type species;
 - (c) to rule that for the purposes of Article 29 of the Code the stem of the generic name *Hydrobius* Leach, 1815 (Insecta) is HYDROBIUS-;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Hydrobia* Hartman, 1821 (gender: feminine), type species by subsequent designation by Gray (1847) *Cyclostoma acutum* Draparnaud, 1805;
 - (b) *Ventrosia* Radoman, 1977 (gender: feminine), type species by designation under the plenary powers in (1)(b) above *Turbo ventrosus* Montagu, 1803;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *acutum* Draparnaud, 1805, as published in the binomen *Cyclostoma acutum* and as defined by the neotype designated in (1)(a) above (specific name of the type species of *Hydrobia* Hartman, 1821);
 - (b) *ventrosus* Montagu, 1803, as published in the binomen *Turbo ventrosus* and as defined by the lectotype designated by Bank, Butot & Gittenberger (1979) (specific name of the type species of *Ventrosia* Radoman, 1977);
- (4) to place on the Official List of Family-Group Names in Zoology the following names:
 - (a) HYDROBIUSINA Mulsant, 1844, type genus *Hydrobius* Leach, 1815 (Insecta);
 - (b) HYDROBIIDAE Troschel, 1857, type genus *Hydrobia* Hartmann, 1821 (Mollusca);
- (5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name HYDROBIINA Mulsant, 1844 (spelling emended to HYDROBIUSINA by the ruling in (1)(c) above) (Insecta).

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