



## **A Lectotype for *Hydrobia Semiconvexa* Sandberger, 1875 (Gastropoda: Truncatelloidea)**

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# A lectotype for *Hydrobia semiconvexa* SANDBERGER, 1875 (Gastropoda: Truncatelloidea)

DIETRICH KADOLSKY

## Abstract

The concept of the nominal species *Hydrobia semiconvexa* SANDBERGER, 1875 is fixed with the designation of a lectotype, which is figured. The synonymy and proven occurrences of this taxon are briefly reviewed.

**Key words:** Miocene, Germany, lectotype, Hydrobiidae.

## 1. Introduction

During the work on a catalogue of the type specimens of fossil non-marine gastropods present in the Staatliches Museum für Naturkunde in Stuttgart (SMNS) (SALVADOR et al., this volume) it emerged that the type series of the nominal species *Hydrobia semiconvexa* SANDBERGER, 1875 consisted of four different species which are not even congeneric. Since the desired lectotype is not stored in the Stuttgart museum, but in the Städtisches Museum Wiesbaden (MUWI), it is designated in this separate short note.

### Acknowledgements

I thank Drs F. GELLER-GRIMM and R. MENTZEL (both MUWI) for making SANDBERGER's material available for study, and for the information on the origin of the labels, respectively.

## 2. Results

“*Hydrobia*” *semiconvexa* SANDBERGER, 1875

Figs. 1–4

non 1852 *Litorinella acuta* „ALEX. BRAUN”. – KRAUSS, p. 142. [non *Cyclostoma acutum* DRAPARNAUD 1805]

\*v 1875 *Hydrobia semiconvexa* SANDBERGER, p. 561. [Kirchberger Schichten; partim, excl. syn. *Litorinella acuta* sensu KRAUSS 1852]

v 1926 *Hydrobia semiconvexa*. – WENZ, p. 1931–1933. [part, locality Leipheim only; remainder not *semiconvexa* SANDBERGER, 1875]

1960 *Hydrobia semiconvexa*. – SCHLICKUM, p. 210, pl. 18, fig. 9. [Jungholz near Leipheim]

1966 *Hydrobia semiconvexa*. – SCHLICKUM, p. 323, pl. 12, figs. 6–8. [Jungholz near Leipheim]

?1970 *Hydrobia semiconvexa*. – SCHLICKUM, p. 177, pl.3 fig.2 [coal exploration wells between Trostberg and Tittmoning, Oberbayern; Kirchberger Schichten]

1971 *Hydrobia semiconvexa*- SCHLICKUM: 571, Pl.1 Fig. 2-3 [Jungholz near Leipheim]

1973 *Hydrobia semiconvexa*. – SCHLICKUM & STRAUCH, in STEININGER et al., p.391, pl.2 fig.2 [Leipheim]

v 1989 *Hydrobia semiconvexa*. – REICHENBACHER, pl. 2, fig. 8. [Leipheim]

2005 *Hydrobia* cf. *semiconvexa*. – KOWALKE & REICHENBACHER, p. 619, fig. 5(3-4) [Leipheim]

Original diagnosis: “*Hydrobia semiconvexa* n. sp. (*Litorinella acuta* KRAUSS a.a.O. S.142 non DRAP. BRAUN = *Hydrobia ventrosa* S. 489) ist im ausgewachsenen Zustande bedeutend grösser als die grössten Stücke der *H. ventrosa* und zeichnet sich durch starke Convexität des letzten Umgangs aus, welcher überdiess ebenso hoch ist als die übrigen zusammengenommen.“ [English translation: *Hydrobia semiconvexa* n. sp. (*Litorinella acuta* KRAUSS loc. cit. p. 142 non DRAP. BRAUN = *Hydrobia ventrosa* p. 489) is in its adult state significantly larger than the largest specimens of *Hydrobia ventrosa* and is characterized by the strong convexity of the last whorl, which, further, is as high as all the remaining ones.]

Remarks: KRAUSS (1852: 142) described the locality from which he had obtained his material of *Litorinella acuta* „ALEX. BRAUN” as follows: „Ober- und Unterkirchberg: bläulich-grauer Thon des Fischlagers, mit *Paludina conoidea*, und wie kalzinirt im graulich-weißen kalkigen Trümmergestein mit *Planorbis pseudoammonius*, Limnaeen, Anodonten und *Paludina tentaculata*.“ [English translation: Ober- und Unterkirchberg, bluish-grey clay of the fish layer, with *Paludina conoidea*, and looking as if burnt within the greyish-white calcareous brecciated rock with *Planorbis pseudoammonius*, limnaeids, anodonts and *Paludina tentaculata* [now: *Ctyrokya conoidea* (KRAUSS, 1852), *Planorbis cornu* (BRONGNIART, 1810), *Lymnaeidae* spp., *Unionidae* spp., and *Bithynia* spp., see SCHLICKUM 1963.]

Type material: The origin of SANDBERGER's material was said to be the Kirchberger Schichten, without citing a locality. The type series obviously consists of SANDBERGER's own material and of KRAUSS' material, because the latter is included by bibliographic reference (article 72.4.1.1 ICZN):

1) Originals of KRAUSS (1852) in SMNS collection, three lots (see SALVADOR et al. 2016, pl. 8, figs. 4–5) for details and an illustration. These lots consist of mixtures of *Nematurella zilchi* SCHLICKUM, 1960, *Ctyrokya conoidea* (KRAUSS, 1852) and *Bithynia glabra* (ZIETEN, 1832). Two of them bear SANDBERGER's label, the third one (SMNS 106428) with a label from KRAUSS is

*Nematurella zilchi* only, which fits best with KRAUSS' description of "*Litorinella acuta*".

2) Originals of SANDBERGER (1875) in Museum Wiesbaden (MUWI): Nine specimens (originally ten). SANDBERGER's label reads: "*Hydrobia semiconvexa* Sandb. Leipheim".

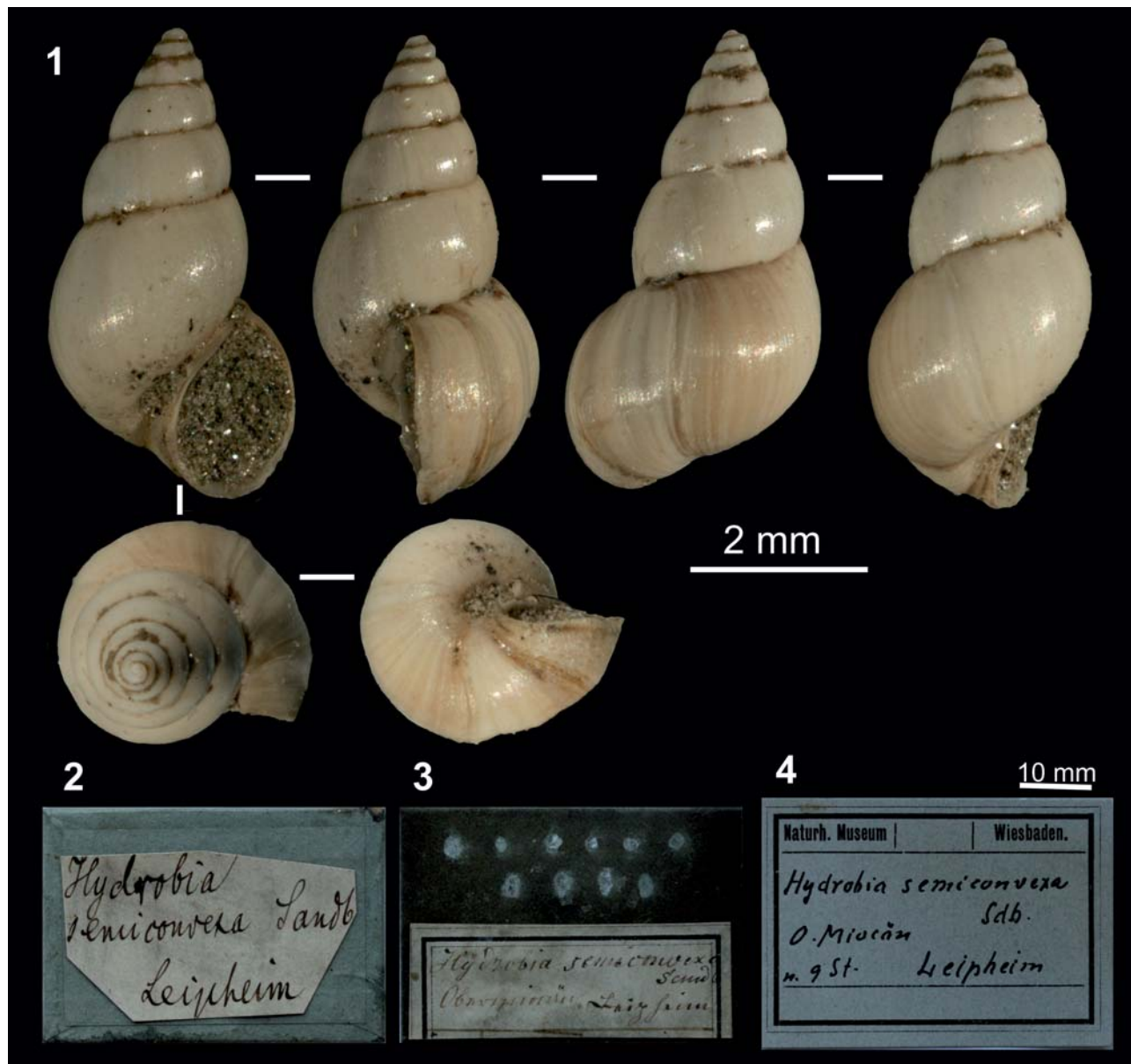
Only SANDBERGER's own lot is conspecific with "*Hydrobia*" *semiconvexa* as interpreted by SCHLICKUM (1960) and all subsequent authors. Furthermore, it agrees best with his diagnosis. As the type series contains four species, the species concept of *Hydrobia semiconvexa* SANDBERGER needs to be fixed on the basis of SANDBERGER's own material and hence a lectotype is hereby designated as follows:

Lectotype is the specimen illustrated here in Fig. 1, with the following dimensions: height 5.48 mm, width 2.94 mm. It is stored in the Städtisches Museum Wiesbaden, inventory number MUWI-MWNH-TER-1672. Eight lectoparatypes are from the same lot and bear the inventory number MUWI-MWNH-TER-1673.

Type locality: Leipheim (Germany, Bavaria, ca. 18 km E Ulm).

Type horizon: Kirchberg Formation (Early Miocene, Oligocene, mammal zone MN 4b).

Distribution: To date, *Hydrobia semiconvexa* is only documented from the Kirchberg Formation in the Leipheim



**Fig. 1:** Lectotype of "*Hydrobia*" *semiconvexa* SANDBERGER, 1875. 2–4: Labels of the type lot from Leipheim. The type lot and labels Figs. 2 and 3 were glued to a wooden display board, which is covered with grey paper. The type lot has since been isolated. 2: Label from SANDBERGER's hand, glued to the rear side of the display board. 3: Display label, written at SANDBERGER's time by curator A. RÖMER. 4: Label written by B. BÜRGER after 1930.

area. Occurrences in “Kirchberg” (now Illerkirchberg), which was incorrectly designated as type locality by WENZ (1926), refer to *Nematurella* species, mostly *N. zilchi* SCHLICKUM, 1960. The latter species was not before 1960 recognized as a separate species, and many pre-1960 reports (pre-1921 reports compiled by WENZ 1926) of *Hydrobia semiconvexa* from the Kirchberg Formation are based on this and possibly other hydrobioid species. Even the report of this species by SCHLICKUM (1970) from Oberbayern is doubtful, on account of insufficient preservation and distance from the type locality. Reports of occurrences outside the Kirchberg Formation need as well to be re-evaluated in the light of the unclear identity of “*H.*” *semiconvexa* prior to SCHLICKUM’s re-definition in 1960.

**Systematic remarks:** *Hydrobia semiconvexa* cannot be placed in the genus *Hydrobia* s.str.; the citation as “*Hydrobia*” follows the rationale proposed by KADOLSKY (2008).

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