

***Stagnicola fuscus* (C. PFEIFFER, 1821), incorrectly used name for *Lymnaea (Lymnaea) vulnerata* KÜSTER, 1862 (Gastropoda: Basommatophora: Lymnaeidae)**

With 5 Figures

MARIA JACKIEWICZ

Abstract. The author argues that the valid specific name for the discussed lymnaeid is *Lymnaea (Lymnaea) vulnerata* KÜSTER, 1862 instead of *Stagnicola fuscus* (C. PFEIFFER, 1821).

Kurzfassung. *Stagnicola fuscus* (C. PFEIFFER, 1821), ein inkorrekt gebrauchter Name für *Lymnaea (Lymnaea) vulnerata* KÜSTER, 1862 (Gastropoda: Basommatophora: Lymnaeidae). - Die Autorin argumentiert, daß der valide Artnamen für die hier diskutierte Lymnaeide *Lymnaea (Lymnaea) vulnerata* KÜSTER, 1862 anstelle von *Stagnicola fuscus* (C. PFEIFFER, 1821) ist.

In 1862, KÜSTER described a new to science lymnaeid species *Limnaeus vulneratus* on the basis of the shell structure. Its specimens originated from Cetina river near Omiš in Central Dalmatia.

In 1979, during my visit in the former Yugoslavia, I had an opportunity to collect about 50 specimens of *Lymnaea (Lymnaea) vulnerata* at its *locus typicus*, that is in Cetina river between the town Omiš and the village Radmonove Mlinice.

I redescribed *Lymnaea (L.) vulnerata* on the basis of the collected material, describing in details the shell morphology and the structure of the reproductive organs of this lymnaeid (JACKIEWICZ, 1988). Herewith, I present the most important features of the structure of its shell and reproductive organs.

The shell is ovately conical in shape. Its whorls are rather convex. The last whorl is large and expanded. The aperture is usually equal to the half of the shell height. The shell reaches 25 mm in height and 11.5 mm in width (JACKIEWICZ, 1988).

The ratio of the praepitium length to the penis sheath length is 3 : 1. The distal prostate part is strongly swollen. There are two large folds inside the distal prostate part. The duct of spermatheca is long and slightly funnel shaped at the opening to the vagina. It is ended with a big spermatheca (JACKIEWICZ, 1988).

The species is also known from Germany (JACKIEWICZ & GERBER, 1990) and Sweden (JACKIEWICZ & PROSCHWITZ, 1991). It undoubtedly occurs in France, in the vicinity of

Address of the author:

Prof. dr hab. Maria Jackiewicz, Department of Animal Taxonomy and Ecology, Institute of Environmental Biology, A. Mickiewicz University, Szamarzewskiego 91A, 60-569 Poznań (Poland)

Toulouse (LARAMBERGUE, 1928) because the drawing of the prostate with two folds published in this paper proves that it presents the internal structure of the prostate of *Lymnaea* (L.) *vulnerata* instead of the prostate of *Lymnaea palustris* (O.F. MÜLLER, 1774) as LARAMBERGUE (l. c.) states.

The characters of the shell and the reproductive organ structure of *Lymnaea* (L.) *vulnerata* show that this species is closely related to *Lymnaea* (Lymnaea) *corvus* (GMELIN, 1791) and *Lymnaea* (Lymnaea) *stagnalis* (LINNAEUS, 1758). These three species are included in the subgenus *Lymnaea* s. str. (JACKIEWICZ, 1993).

It is obscure why the other name, i. e. *Stagnicola fuscus* (C. PFEIFFER, 1821) was introduced for *Lymnaea* (L.) *vulnerata* KÜSTER, 1862 in the popularized scientific book by GLÖER & MEIER-BROOK (1994) „Süßwassermollusken“, 11. erw. Auflage. The figure of the reproductive organs of *Stagnicola fuscus* shown in this paper was taken from my paper redescribing *Lymnaea* (L.) *vulnerata* collected at *locus typicus* (JACKIEWICZ, 1988).

One from the authors of the book informed me that Dr. G. FALKNER (Munich) asked for the change of the name *Lymnaea* (Lymnaea) *vulnerata* KÜSTER, 1862 into *Stagnicola fuscus* (C. PFEIFFER, 1821). I wrote to Dr. G. FALKNER several times asking him for the explanations, however, I did not receive any answer. I think that he was based on the fact that *Limnaeus fuscus* C. PFEIFFER is an older name than *Limnaeus vulneratus* KÜSTER, 1862, however, he did not give any reason for this change.

Below (on p. 49), I present the description of the shell of *Limnaeus fuscus* published by C. PFEIFFER (1821) in „Naturgeschichte deutscher Land- und Süßwasser-Mollusken“.

This description is very brief and general. It may refer, so may a shell drawing presented in this paper, to four lymnaeids *Lymnaea* (*Stagnicola*) *palustris*, *Lymnaea* (*Stagnicola*) *turricula* (HELD, 1836), *Lymnaea* (L.) *vulnerata* and *Lymnaea* (Lymnaea) *corvus*. It should be stressed that PFEIFFER (l.c.) had relatively small shells of *Limnaeus fuscus* (Länge 6 Linien). They were half as large as the shell height given by this authors for *Limnaeus palustris* (Länge 13 Linien).

Taking into account the small dimension of this lymnaeid, older authors like GEYER (1927) and EHRMANN (1937) treated it as a dwarf form of *Stagnicola palustris* living in ditches and shallow temporary water reservoirs. Also HUBENDICK (1951) considers *Lymnaea fuscus* C. PFEIFFER, 1821 to be *Lymnaea palustris* (O.F. MÜLL.).

The shells of young specimens of many lymnaeid species resemble each other much more (Fig. 1-5) than the shells of adults. However, the shell variability, both of small and of large specimens, is very great in lymnaeids. This great variability of shell forms resulted in descriptions of many invalid species and their forms. Sometimes it became evident that specimens identified as one species on the basis of shell characters belonged to two other species, as it happened in the case of the shells identified as *Lymnaea palustris* (O.F. MÜLLER) in the collection of the Museum of Natural History at Göteborg which were in fact *Lymnaea* (*Stagnicola*) *occulta* (JACKIEWICZ) and *Lymnaea* (Lymnaea) *vulnerata* KÜSTER.

The shells which warranted description of *Limnaeus fuscus* by PFEIFFER (1821) were probably not preserved. However, if they had even been preserved it would be not possible to recognize on the shells alone whether they represented a new species or they belonged to one of the known species. The structure of the reproductive organs is the only certain feature on which basis the lymnaeid specific affiliation can be usually stated. The shell may perform supplementary role only.

7. DIE BRAUNE SCHLAMMSCHNECKE. *Limnaeus fuscus*.

Taf. IV. Fig. 25.

L. testa elliptico-oblonga, fusca, imperforata; spirā mediocri, acuta; apertura ovato-elliptica.

Buccinum palustre Müll. Verm. Hist. II. p. 131. N. 326.

Helix palustris Gmel. Syst. nat. I. p. 3658. N. 131.

Limnaeus palustris B. Drap. Hist. des Moll. p. 52. Pl. III. F. 2.

Schröter Flusconchyl. S. 310 T. VII. F. 7.

Gualt. Ind. test. T. 5. F. E.

Thier: schwarz grau; Augen schwarz, mit weissen Wärzchen umgeben.

Länge 7 Linien. Fühler $1\frac{1}{2}$ Linie.

Gehäus: eiförmig, etwas gestreckt, stark, hellbraun, ohne Glanz, fein gestreift. Das Gewinde mit 6 Umgängen: der letzte groß, etwas bauchig, die übrigen allmählig in eine Spitze ausgehend. Mündung oval, halb so groß als die ganze Länge des Gehäuses, inwendig dunkel violett, glänzend. Mundsaum scharf. Nabelritze fehlend.

Länge 6 Linien. Breite $3\frac{1}{4}$ Linien.

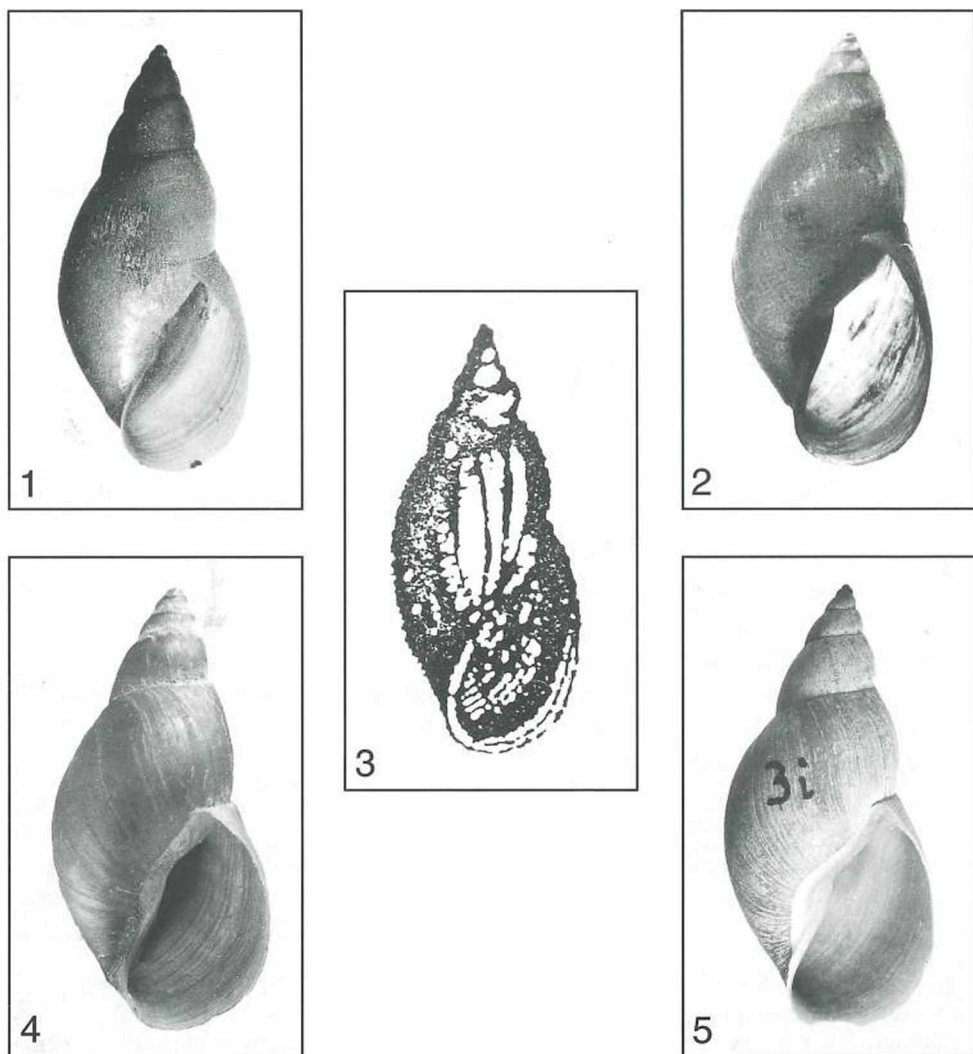
Aufenthalt: in Teichen und Wassergräben; an Pflanzen oder im Schlamm kriechend. Bey Cassel in dem Auegarten, in den sogenannten Küchen- und anderen Gräben; nicht selten.

Diese Schnecke hat mit *L. palustris* viel Aehnliches, unterscheidet sich aber von dieser durch die geringere Größe und durch die gleichmäßige braune Farbe; auch habe ich beyde nie in Gesellschaft und jene bey Cassel gar nicht, bey Hanau hingegen häufig gefunden.

Moreover, any reliable locality „Bey Cassel in dem Auegarten“, from which the lymnaeids described by PFEIFFER (1821) as *Limnaeus fuscus* originated, has not existed any longer. Therefore it is not possible to check if their reproductive organs correspond with the structure of these organs in *Lymnaea* (*L.*) *vulnerata*. This could determine if the change of the name from *Lymnaea* (*L.*) *vulnerata* KÜSTER, 1862 into *Stagnicola fuscus* (C. PFEIFFER, 1821) is reasonable. It should also be taken into consideration that the species composition of water reservoirs as that in which the lymnaeid described by PFEIFFER (l. c.) lived could be completely changed over almost two hundred years.

On account of the presented above facts, it may be stated that the change of the name *Lymnaea* (*Lymnaea*) *vulnerata* KÜSTER, 1862 into *Stagnicola fuscus* (C. PFEIFFER, 1821) is unjustified and it introduces useless disorder. In my opinion, the name *Limnaeus fuscus* C. PFEIFFER, 1821 should be treated as „*nomen dubium*“ or „*nomen oblitum*“ and it should not be introduced subjectively, without convincing reason, into the malacological publications, especially to the popularized scientific book.

In the light of the presented facts, the obligatory name of the discussed species should be *Lymnaea* (*Lymnaea*) *vulnerata* KÜSTER, 1862. *Stagnicola fuscus* sensu GLÖER & MEIER-BROOK, 1994: p. 51, is its objective synonym.



Figs. 1-5: The lymnaeid shells: 1 - *Lymnaea (Lymnaea) corvus*, 4 $\times$; 2 - *Lymnaea (Stagnicola) turricula*, 5 $\times$; 3 - *Limnaeus fuscus*; 4 - *Lymnaea (Lymnaea) vulnerata*, 3 $\times$; 5 - *Lymnaea (Stagnicola) palustris*, 3 $\times$. Figs. 1, 2, 5 - shells from Poland, Fig. 4 - a shell from Yugoslavia (after JACKIEWICZ). Fig. 3 - a reproduction of the original drawing of C. PFEIFFER, 1821.

There are several unclear, waiting for solution, problems of the family Lymnaeidae. They mostly concern their nomenclature. There is probably no other snail group with such a great disarray in this matter. On this occasion, I appeal to all malacologists studying lymnaeids to undertake efforts for nomenclatural unification of particular lymnaeid species.

References

- EHRMANN, P. (1937): Mollusca. In: BROHMER, P., EHRMANN, P., ULMER, G., Die Tierwelt Mitteleuropas, 2, 1. Leipzig. 264 pp.

- GEYER, D. (1927): Unsere Land- und Süßwasser-Mollusken, 3. Aufl. Stuttgart. XI+224 pp.
- GLÖER, P. & C. MEIER-BROOK (1994): Süßwassermollusken. Ein Bestimmungsschlüssel für die Bundesrepublik Deutschland. 11. erw. Aufl. Hamburg. 136 pp.
- HUBENDICK, B. (1951): Recent Lymnaeidae, their variation, morphology, taxonomy, nomenclature, and distribution. Svenska Vetenskaps Akademien Handlingar. Stockholm 3, 1: 222 pp.
- JACKIEWICZ, M. (1988): Anatomy and taxonomic status of *Lymnaea vulnerata* (KÜSTER, 1862) (Mollusca, Gastropoda). - Bull. Soc. Amis Sci. Lett. Poznań Sér. D. 26: 125-128.
- JACKIEWICZ, M. (1993): Phylogeny and Relationships within the European Species of the Family Lymnaeidae (Gastropoda: Pulmonata: Basommatophora). - Folia Malacologica, Kraków 5: 61-95.
- JACKIEWICZ, M. & J. GERBER (1990): Eine für die Bundesrepublik Deutschland neue Schlammschnecke: *Lymnaea vulnerata* KÜSTER 1862 (Gastropoda: Pulmonata). - Mitt. dtsch. malakozool. Ges. Frankfurt/M. 47: 1-5.
- JACKIEWICZ, M. & T. VON PROSCHWITZ (1991): *Lymnaea (Stagnicola) occulta* (JACK.), *Lymnaea (Lymnaea) vulnerata* KÜST. und *Lymnaea (Lymnaea) corvus* (GMEL.) - drei für Schweden neue Schlammschneckenarten (Gastropoda, Basommatophora: Lymnaeidae). - Malak. Abh. Mus. Tierkd. Dresden 15 (14): 125-132.
- KÜSTER, H.C. (1862): Die Gattungen *Limnaeus*, *Amphipeplea*, *Chilina*, *Isidora* und *Physopsis* in Martini u. Chemnitz. Syst. Conch. Cabinet. Nürnberg.
- LARAMBERGUE, M. (1928): Étude de l'appareil génital de quelques Limnées; ses rapports avec la systématique. - Bull. Soc. zool. France, Paris 33.
- PFEIFFER, C. (1821): Naturgeschichte deutscher Land- und Süßwasser-Mollusken in Commission des Grossherzogl. Sächs. privil. Landes-Industrie-Comptoirs. Weimar.

(Received on June 10, 1997)

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Malakologische Abhandlungen](#)

Jahr/Year: 1998-1999

Band/Volume: [19](#)

Autor(en)/Author(s): Jackiewicz Maria

Artikel/Article: [Stagnicola fuscus \(C. Pfeiffer, 1821\), incorrectly used name for Lymnaea \(Lymnaea\) vulnerata Küster, 1862 \(Gastropoda: Basommatophora: Lymnaeidae\) 47-51](#)