

## SHORT COMMUNICATION

## ON THE VALIDITY OF THE NAME *PSEUDAMNICOLA SUBPRODUCTUS* (PALADILHE, 1869) (CAENOGASTROPODA, HYDROBIIDAE)

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ABSTRACT: The validity of the name *Amnicola subproducta* Paladilhe has been controversial since the time of its publication. Several authors debated about whether to use this name instead of the original *Amnicola spirata* Paladilhe. Since the recent resumption of the debate seems poorly justified, literature research was done in order to clarify the validity of these names. An etymological analysis of the word Pseudamnicola is presented in order to ascertain the correct grammatical gender of the name.

KEY WORDS: Hydrobiidae; Pseudamnicola; taxonomy

The genus *Pseudamnicola* Paulucci, 1878 includes a group of small freshwater snail species of the family Hydrobiidae Stimpson, 1865. It was proposed by PAULUCCI (1878) in order to differentiate between the European *Amnicola* Gould et Haldeman, 1840 and the North American Amnicolidae Tryon, 1863. The taxonomy of the genus is complicated, since originally many of the species were described in the mid-nineteenth century, based only on conchological characters as well as some shell morphometrics, and with vaguely defined type localities.

Subsequently, several authors transferred some species from one genus to another, resulting in a taxonomic chaos. This pertains especially to the case of *Pseudamnicola subproducta* (Paladilhe, 1869). Originally described under the genus *Amnicola*, it generated controversy for more than a century, due to the change of name originally proposed by the author of the species.

In his original publication PALADILHE (1869) described *Amnicola spirata* (Figs 1–3). In the same year, in an additional note, he replaced the name with *A. subproducta*, having become aware of *Paludina spirata* described by REQUIEN (1848). It is common to find the use of the name *P. subproducta* in the modern

literature, although some authors continue to use the name *P. spirata*, perhaps as a result of the initial change of the name proposed by PALADILHE (1869).

Recently BOETERS & FALKNER (2017) reactivated the old debate about which of the names should be regarded as valid. The resumption of the debate seems poorly justified. BOETERS & FALKNER (2017) argue that the name change proposed by PALADILHE (1869) should not be considered valid since Paludina spirata is neither a homonym nor could it be since it is a marine species and not freshwater, as opposed to Amnicola. However, the analysis of the literature of the epoch indicates that PALADILHE (1869) may have been right, since at that time the taxa regarded as Paludina and Amnicola were very similar in their diagnosis. For example, ROSSMÄSSLER (1854) mentioned Paludina similis (Draparnaud, 1805) (Cyclostoma similis, subsequently Amnicola similis), P. anatina (Poiret, 1801) (Cyclostoma anatinum, subsequently Amnicola anatina), while KÜSTER et al. (1852) referred to P. orsinii (subsequently Pseudamnicola orsinii) as well as P. anatina and P. similis. Other authors regarded Paludina as a genus of freshwater snails, although more similar to what we now interpret as the genus Bythinia (DE SAINT-SIMON 1848, DUPUY 1850,



FORBES & HANLEY 1853). PAYRANDEAU (1826) considered Paludina desnoyersii to be a junior synonym of Truncatella subcylindrica (Linnaeus, 1767), with a marine habitat reported also for the island of Corsica. PFEIFFER (1828) listed Paludina glabrata (junior synonym of Melarhaphe neritoides (Linnaeus, 1758)) and also marine. Therefore, based on the above facts, it is obvious that the generic name Paludina was used interchangeably for both marine and freshwater molluscs so, at the time of publication of Amnicola spirata it would have been logical to think that this species and Paludina spirata were homonyms. Therefore I think that the reasoning presented by BOETERS & FALKNER (2017) is erroneous since they analysed a particular case without considering the whole framework at the time of the description, or the view of the genera that have derived from these first studies.

According to Art. 52.1, 52.2 of the International Code of Zoological Nomenclature (ALVARADO 1962, RIDE 1999): "When two or more taxa are distinguished from each other they must not be denoted by the same name" and "When two or more names are homonyms, only the senior, as determined by the Principle of Priority may be used as a valid name"; **Art. 57.3** states that "Identical species-group names established for different nominal taxa and subsequently brought together in combination with the same generic name are secondary homonyms and the junior is invalid". In this case, either of the two species names may have been regarded as a secondary homonym since the species of the genera Amnicola and Paludina were assigned to one genus or the other and this was exactly what PALADILHE (1869) wanted to avoid.

However, it does not appear that the homonymy had de facto occurred since the author replaced the name and it is considered to have been in use since NEVILL (1885), not only as claimed by BOETERS & FALKNER (2017), but that several authors of the time already used *Amnicola subproducta* as valid (see SERVAIN 1870, LOCARD 1882, LETOURNEUX & BOURGUIGNAT 1887, THEOBALD 1889, LOCARD 1893, POCH & CHIA 1913) showing that it is not only "Spanish literature" as claimed by BOETERS & FALKNER (2017).



Figs 1–3. Original publication containing the original description of *Amnicola spirata*: 1, 2 – details of publication date and original description; 3 – details of additional note published later in the same year, with replacement name proposed due to possible secondary homonymy

According to Art. 59.3 of the Code "A junior secondary homonym replaced before 1961 is permanently invalid unless the substitute name is not in use and the relevant taxa are no longer considered congeneric, in which case the junior homonym is not to be rejected on grounds of that replacement". As I have shown here: 1 - there is the potential secondary homonymy of the two taxa, 2 the replacement name has been used since the next year after its publication, thus based on Art. 59.3, the name Amnicola subproducta, having been in use, should be the valid name for Pseudamnicola subproducta as suggested by SOLER et al. (2006).

My opinion is based on my interpretation of the facts. In case of doubt, one should refer to **Art. 59.3.1** of the Code "If the use of a substitute name for a junior secondary homonym is a cause of confusion, the case is to be referred to the Commission for a ruling (under the plenary power if necessary, see Article 81) as to which name will, in its judgment, best serve stability and universality, and that name is then the valid name".

Finally, there is one more controversial question: is the genus *Pseudamnicola* grammatically masculine or feminine when it comes to designating the species names? An analysis of the etymology shows that *Pseudamnicola* originates from a combination of the Greek prefix *Pseudo* ( $\psi \varepsilon v \delta o$  – false) and the Latin word *Amnĭcőla* (who dwells near a river). The Latin diction-

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ary (SALVÁ 1868) shows that Amnĭcőla could be either masculine or feminine. Art. 30.1.4.2 of the Code states that: "A genus-group name that is or ends in a word of common or variable gender (masculine or feminine) is to be treated as masculine unless its author, when establishing the name, stated that it is feminine or treated it as feminine in combination with an adjectival species-group name". In PAULUCCI's (1878) publication it is not specified that the genus should be regarded as feminine. Thus, the correct grammatical use of Pseudamnicola should be masculine and in this case, the correct species name will be Pseudamnicola subproductus.

If any doubt remains, I suggest that the case should be referred to the International Commission on Zoological Nomenclature. The above-presented case seems legal rather than zoological. However, such tedious detective work is necessary to elucidate nomenclatural problems.

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