

HELIX INCRASSATA KLEIN, 1853 (MAY) IS NOT A JUNIOR PRIMARY HOMONYM OF HELIX INCRASSATA REEVE, 1853 (FEBRUARY) (GASTROPODA: HELICOIDEA)

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Abstract The name of a well-known Miocene land snail species, *Helix incrassata* Klein, 1853 (May) (currently *Pseudochloritis incrassata*) is not a junior primary homonym of the name *Helix incrassata* Reeve, 1853 (February), because the latter is unavailable as it is a subsequent erroneous spelling of the name *Helix incrustata* Poey, 1852 (currently *Thysanophora incrustata*). Reeve gave Poey as author of *incrassata*; possibly as a lapsus for the similar word *incrustata*.

Key words Nomenclature, subsequent erroneous spelling, *Pseudochloritis incrassata*, *Thysanophora incrustata*.

INTRODUCTION

Pseudochloritis incrassata (Klein, 1853) (Helicoidea; family assignment under discussion), originally published in the binomen *Helix incrassata*, is a well-known fossil land snail in the Miocene Upper Freshwater Molasse of the North Alpine Foredeep in southern Germany and equivalent strata elsewhere (Binder 2008). Salvador *et al.* (2016) discovered an apparent senior primary homonym, *Helix incrassata* Reeve, 1853. One of the authors (DK) intended to apply to the International Commission for Zoological Nomenclature to grant reversal of precedence, but further research into the matter revealed that *Helix incrassata* Reeve, 1853 is not an available species-group name, which, consequently, does not constitute a threat to the name *Helix incrassata* Klein, 1853. The matter is presented here for the record.

NOMENCLATURAL STATUS OF *HELIX INCRASSATA* KLEIN, 1853 AND *HELIX INCRASSATA* REEVE, 1853

Klein (1853: 208–209, pl. 5 fig. 6) described *Helix incrassata* from the Silvana Beds of the Upper Freshwater Molasse (Middle Miocene) from an area between Zwiefaltendorf and Andelfinger Berg in southern Germany. The publication date can be narrowed down to May 1853, as the issue of the periodical is listed in “Allgemeine Bibliographie für Deutschland”, year 1853, part

22 (Anonymous, 1853: 172), which was issued on 2 June 1853 and, being published weekly, lists literature published shortly before, i.e. in May 1853. The species is known from several localities in the Silvana Beds and equivalent strata elsewhere. It is a senior subjective synonym of the type species of *Pseudochloritis* C.R. Boettger, 1909, which is *Pseudochloritis inflexa* C.R. Boettger, 1909 (see Salvador *et al.* 2016a: 28). From around 1917 (see Wenz 1923 for a detailed listing of the references pertaining to *P. incrassata* (Klein) up to 1920) to the present day all relevant publications utilized the species epithet *incrassata* in association with the genus-group names *Pseudochloritis* or *Tropidomphalus* (*Pseudochloritis*), e.g.: Wenz, 1923: 510–516; Baumberger 1927: 153, pl.2 figs. 5–7; Pfeffer 1930: 225–226; Zilch, 1960: 699, fig. 2435; Glibert, 1962: 113; Binder, 2008: 172–173, pl.3 figs. 2–4, pl.6 fig.2; Salvador 2013: 164–165, figs. 18–21; Rasser *et al.* 2013: 440, pl.4 fig. 12; Salvador 2014: 278, figs. 19–20; Harzhauser *et al.* 2014: 34, Hölzke & Rasser 2015: 8–10, figs. 4.3, 5.2; Salvador *et al.* 2015a: 207 figs. 3A–C; Salvador *et al.* 2015b: 261, figs. 4E–G; Salvador *et al.* 2016: 27, 28, pl.5 figs.7–8; Salvador & Rasser 2016a: 46, figs. 2Q–S; Salvador & Rasser 2016b: 118, figs. 23–25; Binder 2017: 219, Salvador *et al.* 2017: 43; Hölzke *et al.* 2018: 32–33, fig. 6.14.

Reeve (1853: pl. 150 fig. 972, with unpaginated text) described as “*Helix incrassata* Poey” a recent land snail species from Havana, Cuba. The date of February 1853 is printed on the text pages and is taken as the publication date of Reeve’s



Figure 1a–e *Thysanophora incrustata* (Poey, 1852). Original of *Helix incrustata* sensu Reeve, 1853 (pl. 150 fig. 972), an incorrect subsequent spelling of *Helix incrustata* Poey, 1852. Havana, Cuba. Natural History Museum UK, registration number 20210201. 2.14×3.35mm. Photo by NHMUK.

Figure 2a–2b Labels for the specimen in Fig. 1. Label Fig. 2a in L. Pfeiffer's handwriting. M.C.=Museum Cuming. Photo by NHMUK.

Figure 3a–3c *Pseudochloritis incrustata* (Klein, 1853). Original of *Helix inflexa* sensu Klein, 1846 (: 71, pl. 1 figs. 12a–b), not *Helix inflexa* Zieten, 1832; syntype of *Pseudochloritis inflexa* C.R. Boettger, 1909; see Salvador *et al.* 2016 (: 28, pl.5 figs. 8a–c) for discussion. Silvana Beds, Upper Freshwater Molasse, North Alpine Foredeep, S. Germany; late Early to early Middle Miocene (Burdigalian/ Langhian). Mörsingen on original label, but Zwiefaltendorf according to Klein 1846 (both localities have Silvana Beds outcrops). State Museum of Natural History Stuttgart, inventory number SMNS 22736. 16.8×24.7mm. Photos by D. Kadolsky.

species. The apparent homonymy with *Helix incrassata* Klein was discovered by Salvador *et al.* (2016a: 28) who suggested that an application to the International Commission for Zoological Nomenclature was required to protect the name *Helix incrassata* Klein. During the research for this application facts came to light which made the application unnecessary, but the matter needs to be made public for the avoidance of doubt.

Reeve's texts follow a constant scheme, viz.: species name without author, description in Latin, description in English, author of the species name with a bibliographic reference, distribution, remarks. Reeve gives Poey as author for *Helix incrassata*, without a bibliographic reference. In the index to the genus *Helix* (Reeve 1854), Poey is again given as author of *Helix incrassata*. However, Poey did not publish this name. Reeve's specimen is conspecific with *Helix incrustata* Poey, 1852 (: legend to pl. 12 figs. 11–16, April 1852; text: 208–209, 212, May 1853), currently *Thysanophora incrustata* (superfamily Helicoidea, family Thysanophoridae). The species epithet *incrassata* Reeve was treated as a synonym of *H. incrustata* Poey by Pfeiffer, 1878 (: 93) and Pilsbry 1894 (:57, 58). Pilsbry (1940: 987–988, fig. 574b, as *Thysanophora incrustata*) gave a good description and illustration of a specimen donated by Poey.

The original specimen of *Helix incrassata* Reeve, here shown in Fig. 1, came from the Hugh Cuming collection. It is unknown how Cuming obtained it; if Poey donated it, it may even originate from the type series of *Helix incrustata* Poey, 1852. Unfortunately none of the two labels (Figs 2a–b) appears to be Poey's original label; conceivably Reeve confused the similar words "*incrassata*" and "*incrustata*". This interpretation is supported by the fact that Reeve attributed the name to Poey (who did not use it), and by the observation that the meaning of the word "*incrassata*" (thickened) makes no sense for *Thysanophora incrustata*, while the word "*incrustata*" (encrusted) is quite fitting for this species. In contrast, *Pseudochloritis incrassata* (Klein) has a conspicuously thickened and expanded apertural lip (Fig. 3).

Being a misreading for *incrustata* Poey, the species epithet "*incrassata* Poey" as published by Reeve (1853) is a subsequent erroneous spelling which does not qualify as an available name (International Commission on Zoological Nomenclature (1999): articles 19.1, 33.3).

Consequently, the name *Helix incrassata* Klein, 1853 is not invalidated by Reeve's use of the name *Helix incrassata*.

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