

## Correspondence

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### On the generic placement of the narrow-range endemic '*Helix*' *arguineguinensis* Seddon & Aparicio, 1998 from Gran Canaria (Canary Islands)

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The nominal taxon '*Helix*' *arguineguinensis* Seddon & Aparicio, 1998 is a narrow-range endemic from Gran Canaria (Canary Islands, Spain) known only from few localities in the vicinity of Argüineguin in the south-western part of the island (Mousson, 1874; Wollaston, 1878; Seddon & Aparicio, 1998). The narrow range of the taxon and potential threats to its habitat as a consequence of ongoing urbanisation of the area justify its classification in the category 'critically endangered' of the International Union for Conservation of Nature (IUCN) as proposed by Cuttelod et al. (2011). The species has tentatively been included in the genus *Xerotricha* Monterosato, 1892 (Bank et al., 2002) or classified as possibly belonging to *Monilearia* Mousson, 1872 on the basis of general shell morphology (Ibáñez et al., 2006). The genus *Monilearia* is believed to be closely related to the genera *Cochlicella* Féruccac, 1821 in Féruccac, 1821–1822 *Prietocella* Schileyko & Menkhorst, 1997 and *Obelus* Hartmann, 1842 in Hartmann (1840–1844) because it shares with these taxa the presence of a vaginal appendage with a peculiar morphology similar to the generalized penial appendix of orthurethran gastropods as described by Schileyko (1984) (Fig. 1). Schileyko (1972) introduced Cochlicellinae as a subfamily of the Hygromiidae. The phylogenetic affinity of this family-level taxon has been variously interpreted (Nordsieck, 1987, 1993; Schileyko, 1991; Schileyko & Menkhorst, 1997; Steinke et al., 2004; Manganelli et al., 2005; Wade et al., 2006, 2007), but recent molecular analyses of Palearctic Helicoidea by Razkin et al. (2015) have lend support to the hypothesis that it represents a tribe (Cochlicellini) within the family Geomitridae as newly delimited by these authors. Diagnostic for the genera in Cochlicellini are details of the anatomy of the vaginal appendage consisting in all anatomically known species of a tubular, comparatively wide section ( $A_1$ ) inserting into the vagina opposite of the insertion point of the penis. Attached apically to the  $A_1$  section, the  $A_2$  section follows, which may be developed as a curved, finger-like portion ending in a blind sac (*Obelus*), a rudimentary sac (*Cochlicella*), or as one (*Monilearia*) or two to four (*Prietocella*) propulsive organs with narrow central ducts (Fig. 1B–E, see also Ibáñez et al., 2003). The thin tubular  $A_4$  section (reduced in *Prietocella*) inserts laterally of the blind sac (*Obelus* and *Cochlicella*) or apically into the propulsive organ (*Monilearia*) ending distally (in relation to the insertion point of the organ into the vagina) in unbranched or branched glands ( $A_5$  section), the latter inserting directly into the propulsive organs in *Prietocella* (Fig. 1). If the homology with the reconstructed penial appendix of orthurethran gastropods with the appendage of Cochlicellini (in which then the  $A_3$  section is reduced) is really justified or if it represents a highly derived state of the dart apparatus of other Palearctic Helicoidea is beyond the scope of this short note, but for ease of comparison the nomenclature of the sections is retained here.

On the basis of newly collected material deposited in the Zoological Museum Hamburg, the placement of '*Helix*' *arguineguinensis* in *Monilearia* is confirmed and a description of the genital anatomy is provided in the following.

#### Abbreviations:

- CSCF Centre Suisse de Cartographie de la Faune, Neuchâtel, Switzerland  
MN M. T. Neiber private collection, Sehnde, Germany  
NMW National Museum Wales, Cardiff, UK  
ZMH Zoological Museum Hamburg, Germany  
ZMZ Zoological Museum, University of Zurich, Switzerland