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Comments on "A new species of land snail from the genus *Diplommatina* Benson, 1849 (Gastropoda, Caenogastropoda, Diplommatinidae) from Sikkim Himalaya, North East India" by N. K. Das & N. A. Aravind, *Molluscan Research* 41 (3), 262–268, 2021

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ABSTRACT

Corrigendum to the paper, 'A new species of land snail from the genus *Diplommatina* Benson, 1849 (Gastropoda, Caenogastropoda, Diplommatinidae) from Sikkim Himalaya, North East India' published in *Molluscan Research* 41, 1–7, 2021 DOI: 10.1080/13235818.2021.1970352.

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Diplommatina Benson, 1849 is an Asiatic genus encompassing more than 400 species (MolluscaBase, 2021). Although Benson (1849) initially erroneously placed *Diplommatina* within the ellobioid family Carychiadae (= Carychiidae), he overlooked the presence of an operculum, which later resulted in its being transferred into the operculate Cyclophoridae (Caenogastropoda) by Gray (1850).

Diplommatina (Cyclophoroidea, Diplommatinidae) and *Carychium* O. F. Müller, 1773 (Eupulmonata, Ellobioidea, Carychiidae) occupy the same layer of moist forest leaf litter in their Asian biomes (AJ pers. observ.) and mistaking one for another is not a remote possibility. Although *Carychium* is frequently radially ribbed, the degree of ribbing varies within the genus and ribbing is not a constant morphological character in all species. The shell surface of *Diplommatina* is almost always ornamented with widely or narrowly spaced radial ribs and a continuous, circular aperture mostly bearing a double peristome. *Carychium* rarely bears a round peristome and its aperture is oblong in shape. The shell of *Diplommatina* shows a constriction at the ventral side of the body whorl, causing a tightening or squeezing effect on the corresponding surface (Figure 1E, F). The degree of constriction corresponds to the diameter of the operculum (Neubert and Bouchet 2015). In addition, most species have a palatal lamella developed in front of the constriction, with a parietal lamella and a columellar lamella present.

In their recent publication, Das and Aravind (2021) described a new species of *Diplommatina* from Sikkim, diagnosed by bearing 'a curved, single peristome, and a uniquely identifiable feature of a distinct, external prominent parietal tooth on the parietal peristome of shell aperture'. Although this work is highly descriptive concerning the northeast Indian Diplommatinidae, it is odd that diagnoses of *Diplommatina* by Benson (1849), Gray (1850) and Kobelt (1902) are not considered although the authors repeatedly emphasise that their new species, *Diplommatina parietidentata* Das & Aravind, 2021, is significantly different from all other members of *Diplommatina*. Moreover, Das and Aravind (2021) cited the work of Budha *et al.* (2017) but overlooked the significant Benson-Gray taxonomic scenario underscored by those authors. By failing to recognise that *Diplommatina parietidentata* is actually *Carychium*, Benson's (1849; 1853) pitfall was revisited, albeit conversely, in this newest work.

Like its congeners from North and Central American, Eurasian, Asian and SE Asian biomes, *Carychium* from the Himalayas (Raheem *et al.* 2010; Gittenberger *et al.* 2017) and the Tibetan plateau (AJ unpubl. data) is known to inhabit moist forest habitats. Species from

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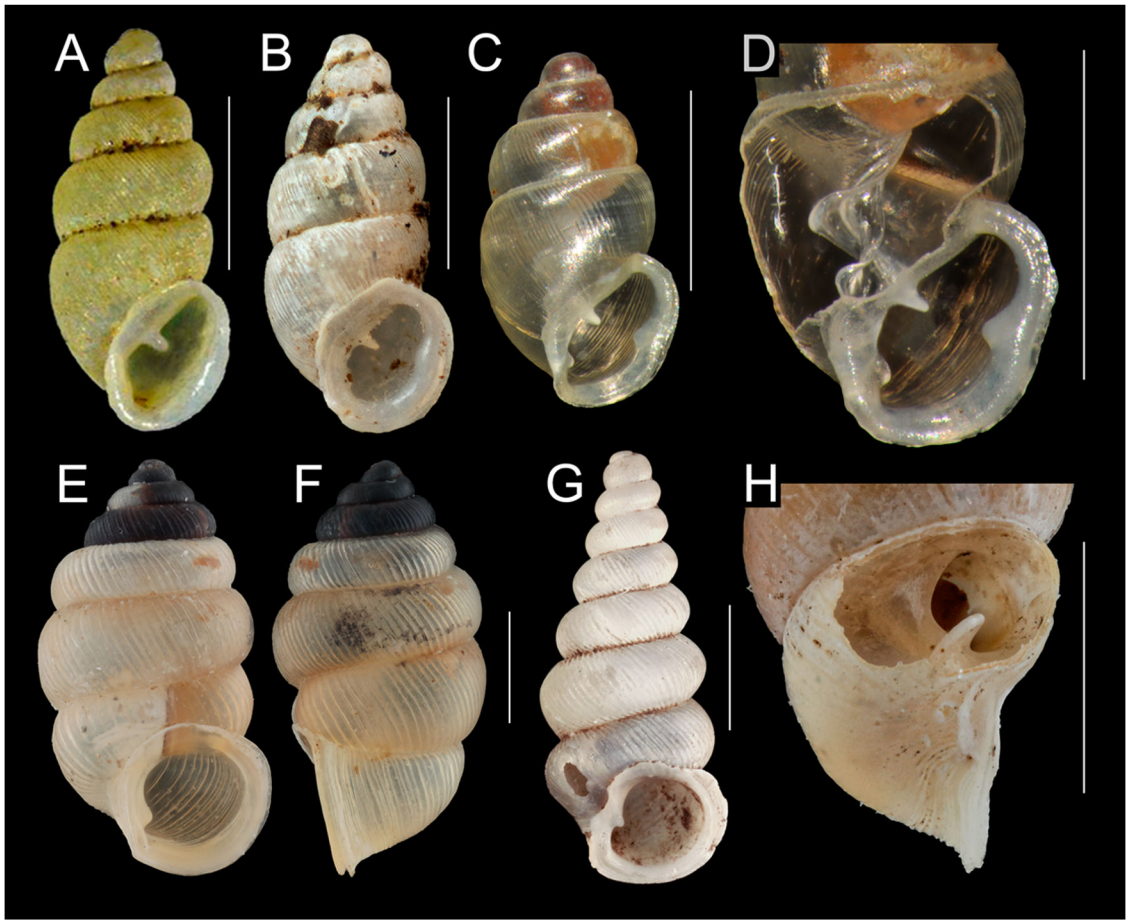

Figure 1. A, '*Diplommatina*' *parietidentata* Das & Aravind, 2021, from original description; **B,** *Carychium khasiacum* Godwin-Austen 1877, Nongba, India, NHMUK 1903.7.1.2850, syntype; **C,** *Carychium minimum* O.F. Müller, 1774, France, MNHN-IM-2010-13017; **D,** Inner structure of *Carychium minimum* O.F. Müller, 1774, France, MNHN-IM-2010-13017; **E, F,** *Diplommatina paxillus* (Gredler, 1881), Hubei, China; **G,** *Diplommatina scolops* Mollendorff, 1901, Guangxi, China; **H,** Inner structure of *Diplommatina* sp., Zhejiang, China. Scales all 1 mm. Photos: Kevin Webb (B, ©NHMUK), Olivier Gargominy (C–D, ©MNHN), Zhe-Yu Chen (E–H).

India include *Carychium indicum* Benson, 1849, *Carychium khasiacum* Godwin-Austen 1877 and a dubious species described from a juvenile shell (most probably *C. indicum*) named *Carychium boysianum* Benson, 1864.

Based on apparent shell characters here, Das' and Aravind's new species, *D. parietidentata*, belongs to the ellobioid genus, *Carychium* and not the cyclophoroid genus, *Diplommatina* due to the following morphological reasons. The shell is oblong or turreted to cylindric in form, and the aperture is oblong-ovate and not round as that characteristic for the Diplommatinidae (Figure 1). *Carychium* usually bears a low discrete lamella (or thickening as in *D. parietidentata*) near the base of the columella and a more or less prominent, parietal lamella above, which expands within the last whorl. Although not directly visible in *D. parietidentata* here, it can be expected that the internal partitions and axis are absorbed in the upper whorls, made visible here via the cutout shell of *Carychium minimum* O. F. Müller, 1773–1774 in Figure 1D. For additional information concerning shell characters of *Diplommatina* species of the Himalayan region, please consult Budha *et al.* (2017). Lastly, until available molecular data can be integratively assessed with all known *Carychium* shell material from the Himalayan region, which is planned in an upcoming revision of the genus, regarding *D. parietidentata* as a distinct species would be taxonomically premature. We strongly encourage the authors, Das and Aravind, to contribute preserved *D. parietidentata* material for the molecular assessment of this Himalayan member of the genus.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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