

A cybertaxonomic revision of the micro-landsnail genus *Plectostoma* Adam (Mollusca, Caenogastropoda, Diplommatinidae), from Peninsular Malaysia, Sumatra and Indochina

Abstract

Plectostoma is a micro land snail restricted to limestone outcrops in Southeast Asia. *Plectostoma* was previously classified as a subgenus of *Opisthostoma* because of the deviation from regular coiling in many species in both taxa. This paper is the first of a two-part revision of the genus *Plectostoma*, and includes all non-Borneo species. In the present paper, we examined 214 collection samples of 31 species, and obtained 62 references, 290 pictures, and 155 3D-models of 29 *Plectostoma* species and 51 COI sequences of 19 species. To work with such a variety of taxonomic data, and then to represent it in an integrated, scaleable and accessible manner, we adopted up-to-date cybertaxonomic tools. All the taxonomic information, such as references, classification, species descriptions, specimen images, genetic data, and distribution data, were tagged and linked with cyber tools and web servers (e.g. Lifedesks, Google Earth, and Barcoding of Life Database). We elevated *Plectostoma* from subgenus to genus level based on morphological, ecological and genetic evidence. We revised the existing 21 *Plectostoma* species and described 10 new species, namely, *P. dindingensis* sp. n., *P. mengaburensis* sp. n., *P. whitteni* sp. n., *P. kayiani* sp. n., *P. davisoni* sp. n., *P. relauensis* sp. n., *P. kubuensis* sp. n., *P. tohchinyawi* sp. n., *P. tenggekensis* sp. n., and *P. ikanensis* sp. n. All the synthesised, semantictagged, and linked taxonomic information is made freely and publicly available online.