

Book Review

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RAHEEM, D.C., TAYLOR, H., ABLETT, J., PREECE, R.C., ARAVIND, N.A., & NAGGS, F., 2014. A systematic revision of the land snails of the Western Ghats of India. Tropical Natural History, Supplement No. 4. Published by the Chulalongkorn University Museum of Natural History, Bangkok, Thailand; hardbound with dust jacket, XIV & 294 pp, figs 1-95 (almost all in colour).

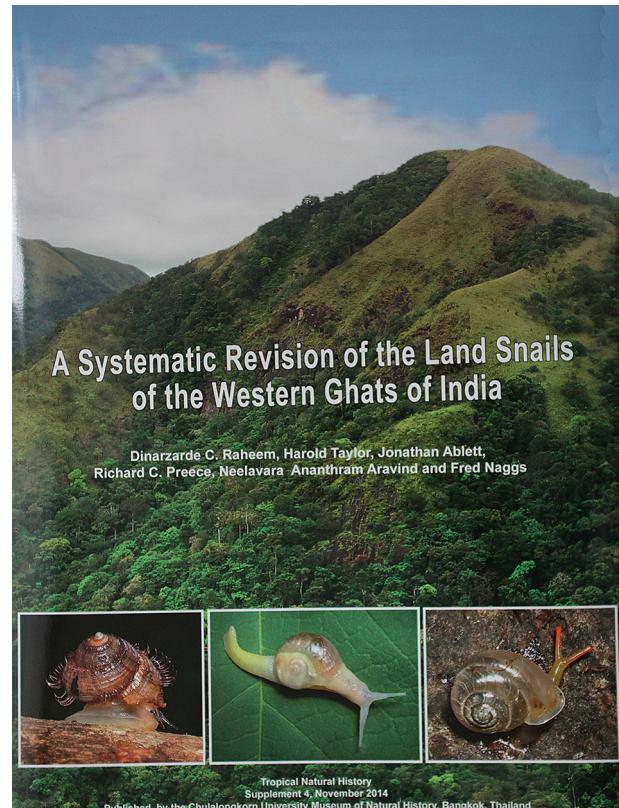
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Many years ago Fred Naggs of the Mollusca Section of the Natural History Museum in London generated renewed interest in the terrestrial malacofauna of the Indian subcontinent *sensu lato*. He succeeded in building up a team responsible for a number of most valuable publications. The rich fauna of this area has several centres of endemism and one of the more striking among those is the area known as the Western Ghats, i.e. the mountain chain running along the western coastline of India. Raheem et al.'s recent revision of the land snails of this hotspot covers the whole area from the coast to the mountain range. A total of 337 taxa are treated, sometimes in detail.

After some introductory chapters, the bulk of the book consists of a systematic revision, covering the caenogastropods (pp. 24-55) and the pulmonates (pp. 55-146). This is followed by two short chapters, i.e., "Species excluded from the revision" (pp. 147-148), some summary "Taxonomic notes" (pp. 149-153), and finally the plates (pp. 154-242). The book is concluded by chapters on literature cited (pp. 243-254), a most valuable Appendix on the localities (pp. 255-284), and a comprehensive index (pp. 285-294).

The 89 colour plates of shells (figs. 7-95) depict the types (syntypes, lectotypes, neotypes) and/or presumed type material of almost all species discussed. In some cases there was no satisfactory material and then original figures are shown (viz., figs. 9, 34, 44, 48, 61, 78, 83). Many of these have been somewhat to con-



siderably enlarged. Harold Taylor, a professional photographer at the Natural History Museum, is responsible for the photography. Gastropod shells are notoriously difficult to photograph because of their striking three-dimensionality. He has wonderfully succeeded to obtain the best illustrations possible and it is entirely appropriate that his name is the second among the authors of the book. References to the figures, marked in bold, feature in the text on the type material (pp. 24-146).

Colour photos of live specimens are only shown on the dust jacket (seven in all) or on the hard cover (one). These are all of very good quality and whet the appetite for more, such as those of *Indrella ampulla* (are those aposematic colour patterns protecting the snails against visual predators such as birds?).

Of the total of 277 species and 27 'varieties', 227 are endemic to the Western Ghats (table 1 on p. 3), which, indeed, is a considerable percentage: 82 %. Most of the others are also endemic, but to larger areas varying from "Endemic to the Western Ghats and Sri Lanka" (15 or slightly more than 5 %) to "Endemic to India and Sri Lanka". A small number of taxa ranges beyond India and Sri Lanka.

The malacofauna of the Western Ghats has some interesting aspects, such as a proliferation of sometimes very striking Cyclophoridae (about 60 taxa), the subulinid genus *Glessula* (55 taxa), and the streptaxid genus *Perrottetia* (11 taxa) – a large proportion of all

these is endemic to the area under discussion (e.g., all *Perrottetia*).

In addition to the endemics and even narrow endemics, there are also some very widely distributed taxa: *Pupoides coenopictus*, *Rachis punctatus*, *Kaliella barrakporensis*, *Subulina octona*, *Allopeas gracile*, *Gulella bicolor*. *Pupoides coenopictus* belongs to a complex of taxa showing an extensive range throughout the drier parts of Africa through to central and southern Asia. It occurs southward into Africa (Namibia) where it is known under various other names. *Rachis punctatus* has a peculiar distribution ranging into East and West Africa. As regards *Kaliella barrakporensis*, this is a very widely distributed taxon, reaching as far south as eastern South Africa. Raheem et al. (p. 77) consider it indigenous, but state "It has a wide distribution in other parts of the tropics, probably having been introduced with plants . . . and, given suitable conditions, occurs even in some temperate countries (e.g. in hot-houses in the U.K., . . .)". The reviewer's experience with this taxon in Africa (now in addition also encountered in remote forest regions of eastern Angola) is such that he considers it indigenous wherever found in Africa – in his opinion it simply is a very widely distributed taxon ranging over large parts of Africa and southern Asia. Here is an interesting challenge for tackling this problem on a molecular level! *Subulina octona* is certainly exotic to India and may be of African origin. *Al-*

lopeas gracile is another introduced (?) species widely distributed in the tropics. The streptaxid *Gulella bicolor* has succeeded in covering an enormous range in the wake of man. It belongs to an African group of this family, although its origin is a matter of dispute – is it originally African or Indian? Appearances may be deceptive, but superficially the shell of *G. bicolor* seems to fit in perfectly with the local *Sinoennea* . . .

The originally East African achatinid *Lissachatina fulica*, also features prominently; it was first introduced in Calcutta in 1847, but, although it is now widely dispersed in Asia and further afield, it is unclear whether it has reached pest proportion in the Western Ghats.

More species may occur in this sizeable area. In the reviewer's opinion it seems that both the micromolluscs and the slugs are underrepresented so that new discoveries may await the eager student.

This treatise is a supplementary issue (Supplement No. 4) of the Thai periodical Tropical Natural History, a journal published by the Department of Biology, Faculty of Science, Chulalongkorn University, Bangkok. This beautifully produced book is a valuable contribution to the modern literature on the terrestrial molluscs of southern Asia. Congratulations to the joint authors for a fascinating and well-designed revision of more than local interest!