There are four reviews on agricultural pest, role of parasitoids in biological control and IPM. The volume editors could have done better by asking the four groups to collaborate and come up with an integrated review identifying knowledge gaps and suggestions for a specific line of research. Unfortunately in the absence of such an exercise, we have to live with the voluminous bulk.

A number of reviews have focused on different strategies adopted by plants to counter pest menace, and insect adaptations to botanical challenges.

Reviews by Johnson, Yan *et al.* and Czaczkes *et al*. deal respectively, with honey-bee toxicology, role of epigenetics in regulation of behaviour and longevity, and role of trail pheromones in colony organization of social insects. None of the three reviews has anything substantial to offer to the reader that they would not already know. However, the review on honey-bee toxicology suggests a few research topics that need to be addressed on an immediate basis for the benefit of the bee industry. The trail pheromone review suggests some interesting questions related to decision-making and adaptation.

A few reviews dealing with insects associated with human and animal diseases stress the importance of understanding the reproductive ecology in order to devise effective control measures.

Two reviews deal with the evolution of traits and their implication, and are certainly a treat to read.

Overall, the collection of reviews drive home the importance of three points: (i) collaborative research, (ii) holistic approach as against reducto-deductive method, and (iii) inclusion of organisms from different trophic levels, that is some sort of systems/community biology. The coming decade will be that of the microbiome and its role in modulating health and disease not only of humans, but also of other animals and plants.

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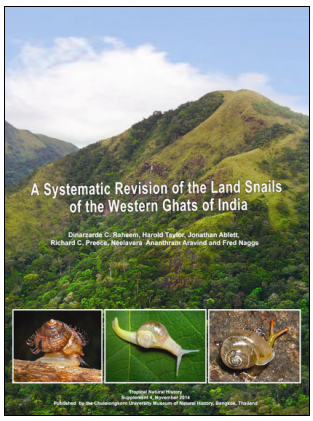

A Systematic Revision of the Land Snails of the Western Ghats of India. Raheem, D. C. *et al.* Tropical Natural History (Chulalongkorn University), Supplement 4, 2014. xiv + 294 pp. ISSN 1513-9700.

The recognition of the Western Ghats and Sri Lanka as a global biodiversity hotspot at the turn of the millennium focused fresh attention on the astonishing wealth of plants and animals of this region, which spans the almost 2000 km between Surat and Cape Comorin. The 'hotspot' designation of the Western Ghats, however, was based largely on floral endemism: faunal diversity remains to be fully assessed almost everywhere. Despite the establishment of the Zoological Survey of India in 1916, official survey initiatives in the post-colonial era have been few. Happily, even as Government agencies have floundered, organizations such as the Ashoka Trust for Research in Ecology and the Environment (ATREE, a partner in this project), the Bombay Natural History Society, and the French Institute of Pondicherry have stepped into the breach. Much of the survey activity that does happen nowadays is the work of NGOs, university-based academics and amateur naturalists.

Biodiversity assessments anywhere, however, are contingent on the existence of a sound taxonomic foundation. Sadly, in the case of many Western Ghats faunal groups, and especially invertebrate groups, the most recent taxonomic revisions date back almost a century. In the case of land snails, the go-to work until now has been the *Fauna of British India* series, published between 1908 and 1921. The compilation of survey-based faunal inventories since then has been handicapped by the lack of a taxonomic literature that facilitates the identification of species and allows the differentiation of potentially new taxa. India's colonial legacy amplifies the problem: the majority of the early type specimens are scattered among museums in the West, a problem exacerbated by anti-biopiracy laws making the cross-border movement of specimens for scientific purposes nearly impossible. In the absence of scientific names – and data on identification, distribution and population – conservation initiatives are useless.

It is this void that has now been expertly filled, in the case of land snails of the Western Ghats, by a team led by Dinarzarde Raheem, a Sri Lanka-born malacologist based at the Royal Belgian Institute of Natural Sciences in Brussels. In this book (pdf available at http://www.biology.sc.chula.ac.th/TNH), Raheem *et al.* review the available names, including synonyms, for all 277 snail species described from the Western Ghats region and provide a stable nomenclature upon which future workers could build. Importantly, they have tracked down all the name-bearing type specimens that still exist (mainly in the Natural History Museum, London). Based on these original collections they show that 200 of the 277 species (and 5 genera) are endemic to the region. Many of these are undoubtedly micro-endemics with ranges smaller than 100 sq. km and, given the region's dwindling forest cover, in urgent need of conservation assessment and attention. Equally important is that future surveys of the region are likely to reveal that about as many species again remain to be discovered.

In addition to synonyms and chresonyms, each species account provides the current name, authority, list of type material, an excellent colour photograph of

the type specimens, type locality and, based on other museum records where relevant, an expanded 'distribution' section. Several nomenclatural problems too, are addressed, e.g. through the resolution of seniority, or the designation of lectotypes and neotypes.

The book lays the indispensable foundation upon which the next stage of this endeavour – of exploration and taxonomic description – must be built, complete with diagnoses and descriptions of the taxa and keys to their differentiation. It has clearly been a labour of love for the authors and is unarguably the most important contribution ever made to our understanding of the land molluscs of this biodiversity hotspot; it will serve to make the land snails of the Western Ghats a focus of attention of both biodiversity scientists and conservationists for many years to come. Given the fragility of this fauna, and the dependence of many species on the dwindling extent of undisturbed forest, it comes not a moment too soon.

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