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Tasmanian Earthworms

A CD-ROM on "[Tasmanian Earthworms](#)" is now available that includes a comprehensive introduction to biology/morphology/reproduction, plus a revision of the megadrile families of the world. This 800 page monograph with 222 figures would be of value to ecologists, taxonomists, teachers, and students involved in this field of study, particularly those in Australia but also workers from other regions of the Globe.

The monograph includes background information, a comprehensive introduction to study methods, and describes 228 species in 38 genera belonging to 4 families of earthworms from Tasmania. Prior to 1997 approximately 55 species were known while in the three years to 2000 studies by the author had almost doubled this to 95 species comprising: 69 natives, 1 new-endemic, 23 exotics and 2 translocated mainland endemics. The current account makes new combinations and adds 136 new native taxa, several with interesting morphological adaptations never before seen, to nearly triple the total of Tasmanian endemics to 202 species in 24 genera. This biodiversity compares with species totals of approximately:

- 48 from Britain and Ireland
- 78 from Japan
- 200 from North America and Canada
- 174 from Myanmar
- 180 from France
- 195 from New Zealand
- 505 from the Indian subcontinent
- 350 from mainland Australia

Previously known species are fully revised, some are placed in synonym, a few are restored, and in two cases, neotypes are designated. Tasmania, an island state about the same size as Ireland, Sri Lanka, or Hispaniola, can now claim the

first earthworm described from *Australasia viz. Megascolides orthostichon* (Schmarda, 1861), the first Australian report of *Lumbricus terrestris* Linnaeus, 1758, a new littoral species of *Pontodrilus Perrier*, 1874 with an argument for Australian endemism of this genus, as well as the first well known loss of a native species from the World fauna due to the extinction of *Hypolimnus pedderensis* the Lake Pedder Earthworm.

All 18 megadrile Oligochaeta Families of the world are reviewed and revised in order to place Tasmanian genera in the context of the global fauna. The long anticipated "missing-link" of Octochaetidae in Australia is newly determined, e.g. *Octochaetus ambrosensis* (Blakemore 1997). No endemic Acanthodrilidae or Octochaetidae occur in Tasmania as are found on both the North and South Islands of New Zealand and in northern Australia. All Tasmania's earthworms belong to the Megascolecidae s. strict. A new Family is proposed in order to remove a 'troublesome' and 'puzzling' element, the genus *Exxus* Gates, 1959 that complied with the Octochaetidae except that its two pairs of prostomes had the apomorphic racemose state, and which was placed by disparate authors in either a restricted Megascolecidae or an expanded Acanthodrilidae, although it actually complied with neither. Presumed to be an Australian genus, the present study concludes that it is most likely from Central America (possibly around Puerto Rico). The fresh classification presented, like more previous ones, owes much to the 'Classical System' originally devised by Michaelsen (1900, 1907, 1921, 1929), presented in its final form by Stephenson (1930), and modified by Lee (1959), Gates (1959, 1972), and Sims (1966, 1982).

The price for the "Tasmanian Earthworms" CD-ROM is \$100 (or equivalent currency). There are special prices for schools, to non-institutionalized students, and for CSIRO - Australia's Commonwealth Scientific and Industrial Research Organization. Details of these are available on application to the author. All prices include tax but there is an additional postage and handling fee of 10% per order that needs to be added to invoice totals. PC format is Microsoft Word '97 or higher, the ability to read CDs and to view GIF/JPEG files.

A complementary DELTA/INTKEY interactive computer guide to the species is also available for distribution to accompany the CD-ROM monograph. Enquiries in the first instance should be made to the author: Rob Blakemore
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