

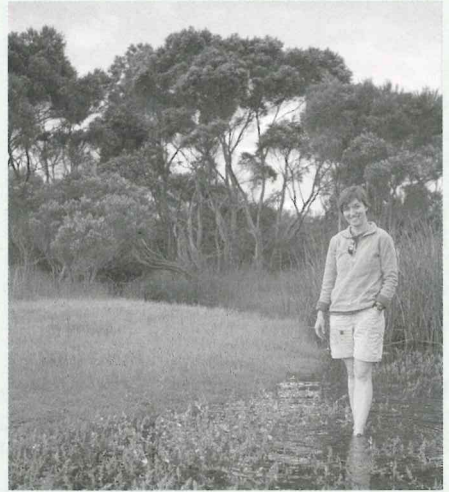
Leeches – our poorly known invertebrates

By Adrian Pinder

Understanding the number and types of plants and animals occupying an area or habitat underpins most conservation work, yet for invertebrates this is often a challenge. Many species are not formally described and identification keys have not been produced because the fundamental taxonomic research has not yet been carried out. One aquatic invertebrate group about which we know very little in Western Australia is the leeches.

In April, DEC Technical Officer Anna Leung and I had the opportunity to assist Anna Phillips from City University of New York to collect leeches during her week-long visit to south-west WA. Her studies focus on the leech family (Hirudinidae) that contains the medicinal leech (*Hirudo medicinalis*), so knowledge of the family's biodiversity has potential medical spin-offs. Anna was visiting Australia under the auspices of the American Museum of Natural History in New York where she is based. Anna sampled numerous south-west rivers and wetlands, including the Lake Muir wetlands, Seppings Lake in Albany, Serpentine Falls and several wetlands in the Perth metropolitan area. She has now taken these specimens, along with material borrowed from DEC and the Western Australian Museum collections, back to New York for detailed examination.

Anna's preliminary analyses of the material she collected in Australia suggest the Australian Hirudinidae are monophyletic.



Leech taxonomist Anna Phillips at Owingup Swamp in April. Photo – Adrian Pinder

This means that they are all more closely related to one another than they are to leeches in the same family elsewhere in the world, and therefore the Australian hirudinid fauna represents a unique lineage. New information arising from this trip will be added to data collected from other parts of the world to produce a new analysis of the group's evolution and classification.

The collaboration with DEC enabled Anna to visit many more types of wetlands than she would otherwise have managed, and will provide us with an opportunity to advance our knowledge of the State's invertebrate taxonomy and biodiversity. For more information contact Adrian Pinder on 94055153 or adrian.pinder@dec.wa.gov.au.