

## **Conservation of threatened and relictual invertebrates on the south coast of Western Australia**

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On the South Coast of Western Australia a significant number of short-range endemic and relictual invertebrates are known from isolated pockets of relictual Gondwanan habitats that characteristically remain damp and humid throughout the year. Many of these areas support threatened invertebrates, including the Endangered Stirling Range Trapdoor Spider and Critically Endangered Stirling Range Rhytidid Snail and are also refugia for other relictual Gondwanan taxa including declining groups such as Onychophora (velvet worms), Mygalomorphae (including *Neohomogona* spp, and *Austrarchaea robinsi*) and a number of Diplopoda (millipedes) from the genus *Atelomastix*. Modelling of relictual habitats was completed and followed by ground truthing of areas predicted to provide relictual type habitats. Dedicated surveys conducted by WAM and supported by DEC's South Coast and Warren regions and South Coast NRM Inc. increased collections of SREs from across the region, significantly increased our knowledge of the distribution and status of threatened invertebrate taxa, and identified a number of taxa that potentially meet the criteria for threatened.

Due to their restricted distribution and specialised requirements, short-range endemic and relictual invertebrates are at significant risk of extinction from anthropogenic and natural disturbance. The most significant threat to these species is inappropriate fire regimes, and it is anticipated that in conjunction with climate change and other threats this will have a negative effect on the relictual nature of their habitat. Areas of high importance for the conservation of relictual and threatened invertebrates on the south coast include coastal features of the Albany Fraser Oregon, remnant karri and tingle forests, and the quartzite ranges including the Stirling Range National Park. A recovery plan for the currently listed threatened taxa from the latter has recently been completed. The recovery actions include ecological research into the effects of disturbances on habitat and taxonomic research that are required to clarify the conservation and taxonomic status of these taxa. Implementation of these recovery actions is guided by the South Coast Threatened Invertebrate Team and will assist in informing management of the reserves and improve conservation outcomes for threatened and relictual invertebrates.

# Threatened Species Research Forum



Western Australian Ecology Centre

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A Review of WA Government Research into Threatened Species