



Training Days in Crayfish Ways

CRAYFISH chimneys are a familiar sight in the West Gippsland landscape but little is known about the variety of species that are found in an area considered a hotspot for crayfish diversity. Of the eight species of burrowing crayfish (*Engaeus sp.*) that occur in West Gippsland, three are considered threatened and listed under the *Flora and Fauna Guarantee Act 1988*. Perhaps the most famous Gippsland invertebrate is the Giant Gippsland Earthworm (GGE), a species that inhabits the creek banks and south-facing slopes of South and West Gippsland.



In the first half of 2018, DELWP, in partnership with Trust for Nature, delivered a project entitled * "Conserving Threatened Invertebrates of the Western Strzeleckis". This project provided the opportunity for on-ground training to build the expertise of regional staff in industry and agencies on how to identify the habitat and conservation requirements of threatened invertebrates in the region. The invertebrates targeted included: the Narracan, Strzelecki and Warragul Burrowing Crayfish, and the Giant Gippsland Earthworm.

The initial stage of the project involved one-on-one site visits with property owners and land managers to assess their land for burrowing crayfish and earthworm habitat. These visits were valuable and the landowners were thrilled to learn that they are caretakers of threatened species in their own backyards.

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Participants included:

- TfN - Trust for Nature
- GW - Gippsland Water
- HVP - Hancock Victorian Plantations
- DELWP - The Department of Environment, Land, Water and Planning
- WGCMA - West Gippsland Catchment Management Authority
- LandCare
- Private Landowners



Several participants were trained in how to use burrowing crayfish traps. One such landowner was Richard Appleton. Richard owns a very special property in Balook, nestled in the high altitude region of the Strzelecki Ranges where he has spent most of his life. He has been fortunate in owning land that supports remnant cool-temperate rainforest. Richard has dedicated many years to trying to "recreate the biodiversity that would have existed 200 years ago, when the tree canopy protected a dense understorey, and animals and birds had a symbiotic relationship that contributed to their survival".



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After setting 16 traps for one week, Richard caught his first crayfish, the bright red Strzelecki Burrowing Crayfish. His work in conserving and restoring the natural environment has paid off for this threatened species.

Individual site visits were followed by a series of workshops. The first workshop included a deluxe tour of four different locations starting at GW's property at Sunny Creek at Yarragon South. Seven people attended including representatives from HVP, GW, TfN, DEWLP and Landcare.



Launching of the Burrowing Crayfish Fact Sheets

A presentation was given by Dr. Beverley Van Praagh after which the group made their way down to a ferny gully to see first-hand some Narracan Burrowing Crayfish habitat and learn about how different species of crayfish make their homes in different parts of the landscape. The tour then moved on to a site in Warragul where participants learnt to identify Warragul Burrowing Crayfish habitat and the unique shape of their chimneys. The "land of the giants" was next on the agenda with a visit to a housing subdivision in Warragul where GGE habitat was protected and incorporated into the design of the estate, including a special planting regime around GGE colonies to protect soil moisture, critical to the survival of this species. The final stop was a visit to a public park in Drouin where everyone took part in the stomping ritual while listening for gurgles the worms make when they retreat down their wet burrows. Shannon from GW won the prize for being the first and only person to elicit a gurgle! Earthworm burrows and cast material were shown to the group.

The second workshop was held on a cold winter's morning in June, where a group of land managers and scientists headed up to Richard's property in Balook to discover the secrets of the Strzelecki Burrowing Crayfish.

The group included representatives from TfN, HVP and GW. After checking the traps that were set the night before, the group followed one of the walks created by Richard that winds through several ferny gullies, all of which were home to Strzelecki Burrowing Crayfish habitat and allowed people to witness the majesty of some of the largest and oldest examples of Mountain Ash in the region.



This project put burrowing crayfish on the agenda and highlighted the need for invertebrates to be considered in organisational management practices. It also gave participants skills and knowledge to build on in the future. As one participant commented:

"knowing more about a threatened species helps you feel more connected and passionate about protecting it and therefore rings "alarm bells" when planning works in habitat that might support these species".

For more information on the project, go to
www.burrowingcrayfish.com.au



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