

**THE LANDHOPPER *ARCITALITRUS DORRIENI* (HUNT) (CRUSTACEA: AMPHIPODA: TALITRIDAE) UP A PARKLAND TREE IN CORNWALL**

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The Australasian landhopper *Arcitalitrus dorrieni* has been known from Cornwall for many years – the species was originally collected and described as ‘new to science’ from the Isles of Scilly (Hunt, 1925). The earliest mainland record appears to be 1950, from the Penlee Gardens in Penzance; it is now widespread across the county (Erica for Windows, consulted 2009). It also occurs elsewhere across Britain and Ireland (Harding & Sutton, 1988) where the climate is suitable, ie relatively mild, humid and frost free. It is generally regarded as an inhabitant of deep leaf litter on the soil surface, especially in shaded situations, and is best known from long-established gardens and neighbouring woodlands. The local authority on *A. dorrieni*, Dr Peter Smithers (pers. comm.), has set trunk traps for them in Cornwall but with no success.

Two flight interception traps were operated in Lanhydrock Park, near Bodmin, by the author during 2008. One was placed on a fallen sycamore tree at the park edge with plantations while the other was placed in a large old parkland oak in the middle of the pastureland. It is fair to say that one species which was not expected was a flightless terrestrial amphipod. However a large number of *A. dorrieni* were found in the oak trap during the July to September trapping period. An accurate count was not made but numbers exceeded 30 individuals.

The trap comprised four one litre plastic bottles attached to a wooded base and hung with the openings downwards so that the contents were readily emptied by unscrewing the cap. Each bottle had a large window cut into its side to permit access by flying insects. The preservative was commercial antifreeze diluted 50/50 with tap water plus a small amount of commercial washing-up liquid to reduce surface tension and ensure anything falling in would sink. The trap had been hung against the trunk about 2m above ground level and rested against split wood where a major bough had ripped out a year or so previously, leaving a large scar of exposed wood.

Since *A. dorrieni* is incapable of flight, it is assumed that the landhoppers were climbing up the trunk in large numbers, even crossing the exposed bare wood of the scar where the trap was positioned. Climbing the moss and lichen-covered bark seems more feasible for an amphipod than the bare wood but presumably they are able to use the wood fibres for climbing too. Climbing activity is presumably restricted to the hours of darkness. It is interesting that despite considerable exploration of aerial deadwood on trees across Cornwall, the author has never encountered landhoppers in this situation before.

Recent research on the species (Cowling et al, 2003) has found that the critical relative humidity below which the landhopper experiences desiccation stress is very high (95-100%), ‘making it completely reliant on the leaf litter/soil microhabitat’. The latter conclusion is now shown to be incorrect.

**ACKNOWLEDGEMENTS**

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Erica for Windows. A software package for biological recording in Cornwall, managed by Dr Colin French.