

# endangered

by Melinda Moir



## Vesk's plant-louse

Vesk's plant-louse (*Acizzia veski*), described in 2009 by Gary Taylor and myself, is an attractive bright orange with distinctive chocolate-brown markings. The delicate and species-unique patterns present on the adult wings and body of plant-lice somewhat compensates for their unflattering name, which probably stems from the nymphs looking like lice to the untrained eye, and from their very small size; Vesk's plant-louse is relatively large at 3.5 millimetres.

All plant-lice are herbivorous, feeding on the sap of their plant hosts, which in the case of Vesk's plant-louse is only one population of a conservation-listed plant—*Acacia veronica* ('priority 3'). This small strappy-leaved tree (pictured in the centre of the photo above) is endemic to Stirling Range National Park, in the state's south-west. Despite there being a number of populations scattered

throughout the national park, Vesk's plant-louse has been found on only one of these populations. This is surprising, as Vesk's plant-louse has wings and should be capable of flying to other *A. veronica* populations. However, these insects are small and may not be able to locate their host plant easily, especially given the diversity of plants in the Stirling Ranges, which is estimated at more than 1,500 species, and the gully habitats that *A. veronica* is usually found in.

The National Climate Change Adaptation Research Facility (NCCARF) is funding the translocation of some Vesk's plant-louse individuals to other *A. veronica* populations to safeguard the tiny insect from extinction, should anything happen to the one population on which it is currently found. Further research into the specific climatic conditions required by *A. veronica* should also help to determine what will happen to this plant and its dependent insects with

predictions of future climate change.

Vesk's plant-louse's reliance on only one population of a conservation-listed plant has led to it being recorded as 'vulnerable' in the February 2012 threatened species list; one of the few insect species to be listed, and the first to be defined as threatened by the process of co-extinction. The conservation list contains few plant-dwelling insects. This is not because there are fewer rare bugs than other animals, but because Western Australia has such a diverse insect fauna that new species are still being uncovered, even in more heavily populated regions such as the south-west. In addition, there are very few taxonomists and ecologists Australia-wide who study tiny insects like plant-lice. Therefore it is no wonder that such a specialised feeder as Vesk's plant-louse has gone unrecorded until recently.

Photos by Melinda Moir

- 45 Outdoor university: environmental education in the Walpole and Nornalup Inlets Marine Park  
Students get hands-on learning opportunities and contribute to science.
- 48 Mount Augustus: home of the flying dragons  
Nine species of dragonfly dazzle with their spectacular displays.
- 56 Rediscover Perth outdoors  
Perth locals and visitors are spoilt for choice when it comes to opportunities to get out in nature.

## Regulars

- 3 Contributors and Editor's letter
- 21 Bookmarks  
*On a Wing and a Prayer: The story of a Carnaby's cockatoo family*  
*Cape Arid*  
*Kimberley History: People, Exploration and Development*
- 30 Feature park  
Two Peoples Bay Nature Reserve
- 55 Endangered  
Vesk's plant-louse
- 62 Urban Antics  
Web of intrigue

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