Bronwyn Ayre

Biography

Bronwyn Ayre is a PhD student at the University of Western Australia and the Botanic Gardens and Parks Authority. She is interested in the use of genetic techniques to help answer questions in ecology and conservation.

EcoTAS abstract

The distance pollen travels can have a major impact on the fitness of progeny in sexually reproducing plants. For animal pollinated plants, patterns of pollen dispersal are thought to be driven by optimal foraging, whereby a pollinator conserves energy by moving between nearby flowers, resulting in near-neighbour pollination. However, different patterns of pollen dispersal have been shown in bird-pollinated plants, with aggressive interactions between pollinators, and high levels of pollen carryover, driving larger, and often random pollen dispersal. Anigozanthos manglesii, the Red and Green Kangaroo Paw, is a perennial wildflower endemic to the South West of Western Australia. Although historically bird-pollinated, it is also visited by the introduced European Honeybee (Apis mellifera). To test the effect of pollen dispersal distance on reproductive success, A. manglesii flowers were emasculated and hand-pollinated with pollen from donors spaced over varying distances: 0m (selfed), <1m, <5m, 5-10m, and >20m. Additional flowers received pollen from multiple donors- applied in a mix or sequentially. Flowers that received pollen from their closest flowering neighbour (<1m), produce on average less seed (49.5 seeds/fruit), with lower germination success (83%) than flowers which received pollen from over a metre away (108 seeds/fruit, 94%). Self-pollinated flowers set seed 10% of the time, with an average of 5.3 seeds/fruit. This suggests that self and

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Monday, November 27, 2017

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Sugarloaf Room

Oral presentation

Ayre B [1,2] , Krauss S [1,2] , Roberts D [2,3] , Anthony J [1,2] , Phillips R [1,2,4] , Hopper S [1,3]

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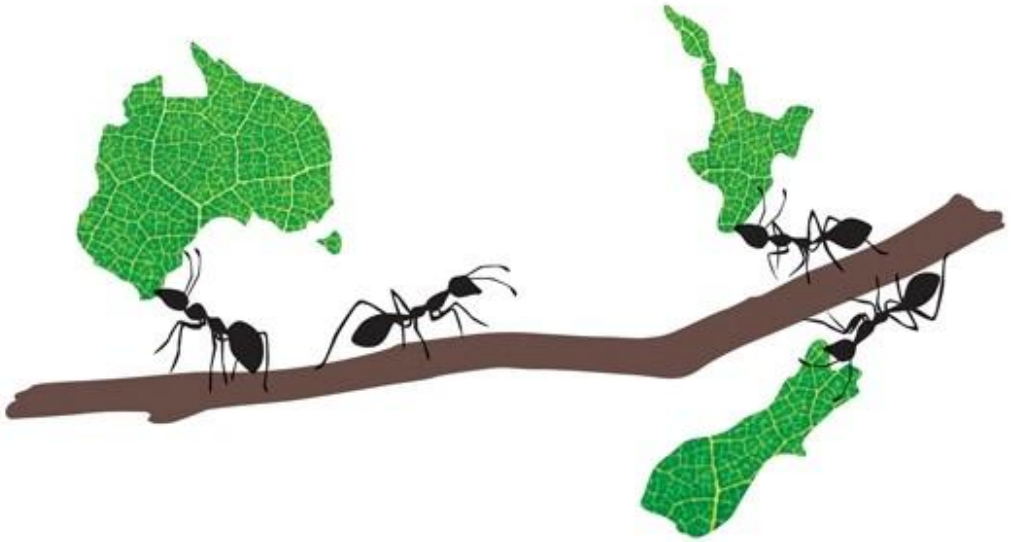
Importance of pollen dispersal distance on the reproductive success of the bird-pollinated Anigozanthos manglesii

near neighbour pollination- typical of honeybees- are having a negative impact on reproductive success. A greater understanding of the optimal pollination distance of A. manglesii will help us determine the impact of pollination by the introduced European honeybee.



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Kiri (Reihana) Spraggs

EcoTAS abstract

The widespread degradation of water quality and quantity and its state of mauri, is a significant issue for Māori. This issue is represented by widespread degradation of

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