Sarah Barrett

Biography

Dr. Sarah Barrett is the Threatened Flora Conservation Officer for the Albany District of the WA Department of Biodiversity, Conservation and Attractions. Her work involves threatened flora and threatened ecological community conservation, Phytophthora dieback management, fire ecology and vegetation survey.

EcoTAS abstract

Banksia montana (Proteaceae) from the low peaks of the Stirling Range in Western Australia is considered at very high risk of extinction due to its susceptibility to an introduced soil pathogen, Phytophthora cinnamomi, which has become widespread within its natural range. Less than 40 mature individuals remain in the wild. These plants are colonized by a host-specific scale insect, both now mutually at risk of extinction.
A conservation introduction of B. montana was undertaken in 2003, away from its natural upland habitat. Despite high survival, few plants have successfully reproduced, predominantly due to invertebrate predation. Meanwhile, wild populations continue to experience low natural recruitment and mature plants, some up to 50 years old, are declining. The dwindling wild populations occur in a montane heath community maintained by aerial application

SYMPOSIUM: Novel management interventions for threatened species

Wednesday, November 29, 2017

4:00 PM - 6:00 PM

Wattagan Room

Oral presentation

Barrett S [1] , Rathbone D [2] , Dillon R [1] , Cochrane A [1]

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Re-introducing a threatened banksia into a Phytophthora cinnamomi infested montane habitat in Western Australia

of the fungicide Phosphite to reduce the impact of Phytophthora cinnamomi.
Restocking of existing populations is now crucial to prevent extinction of this species in the wild. A precedent has been demonstrated in the re-stocking of a common congener in the same montane habitat, where overall mortality was less than 50% after five years. Surprisingly high survival may be due to the use of Phosphite, to the increased disease resistance of germplasm sourced from plants that have persisted in pathogen-infested areas and microsite choice. But can we do the seemingly impossible? Here we propose to re-introduce a threatened species into a pathogen-infested montane habitat utilising putative intra-specific genetic resistance, environmental parameters and fungicide management to deliver in-situ restoration outcomes.

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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

Open session (1)

Monday, November 27, 2017

3:45 PM - 5:45 PM

Sugarloaf Room

Oral presentation