

# Protection and Restoration of Roadside Populations of *Diuris bracteata*, Gosford City Council

## COUNCIL NAME

Gosford City Council

## WEB ADDRESS

[www.gosford.nsw.gov.au](http://www.gosford.nsw.gov.au)

## SIZE

1029 square kilometres

## POPULATION

170,414

## Overview

*Diuris bracteata* is a small ground orchid commonly known as 'donkey orchid' due to the petals of the flower looking like donkey ears. The flowers are yellow with blackish markings. The orchid is listed as endangered under the *Threatened Species Conservation Act 1995*, and fourteen of the fifteen known populations of this species within the Gosford LGA are found within road reserves. This highlights the importance of appropriate roadside management regimes to the long term conservation of these orchids.



*Diuris bracteata* (Photo: Karen Sommerville, Royal Botanic Gardens, Sydney).

## Background

Gosford City Council was a successful recipient of a Roadside Vegetation Implementation Project (RVIP) grant funded by the NSW Environmental Trust. The project was a partnership with the Hunter Central Coast Regional Environmental Management Strategy (HCCREMS) team and involved identifying orchid locations, undertaking bush regeneration at seven key sites across the council area to protect *Diuris bracteata* populations, establishing protocols for on-going site monitoring, training staff to increase awareness and capacity to manage the species and the sites into the future. Other resources developed included (i) a field identification card for the species (ii) a field guide for managing sites containing ground orchids and (iii) a colour coded roadside marker to assist road crews in identifying orchid site locations. All these outcomes have strengthened the council's capacity to manage the species into the future, and improve the quality of these sites over time.

## Outcomes

### On-ground works

Weed control works were undertaken across seven sites targeting high priority weeds, including Hypochaeris and Coreopsis species. Manual control techniques were the only method of removal to ensure minimal disturbance to native species. Weed control was focussed in areas where weed infestations were dense and preventing the recruitment of *Diuris bracteata*. Local Orchid experts identified as many as 33 orchid species along one small section of roadside.

### Site monitoring

Systematic vegetation surveys were undertaken at three sites to record the number of orchids prior to weeding and post weeding. 20 metre by 20 metre quadrats were used along with point location and photographic records.

### Outdoor Training Sessions

Four training sessions were conducted, involving 40 participants from across council. Three outdoor training sessions were conducted by a specialist ecologist covering the location and extent of *Diuris bracteata* and appropriate management techniques including timing and frequency of maintenance works. One session was held focussing on the HCCREMS roadside marker scheme and the use and location of specific markers for ground orchids.

### Installation of roadside marker scheme

Sixty colour coded Ground Orchid roadside marker posts (V3) were installed across seven sites to guide road maintenance crews in the identification and appropriate management of the species

### Field Identification Card and Guide

A total of 100 Field Identification cards were produced for Gosford Council staff to accompany the Field Guide for Ground Orchids. The cards will assist staff in both identifying the species and employing best practise management techniques.

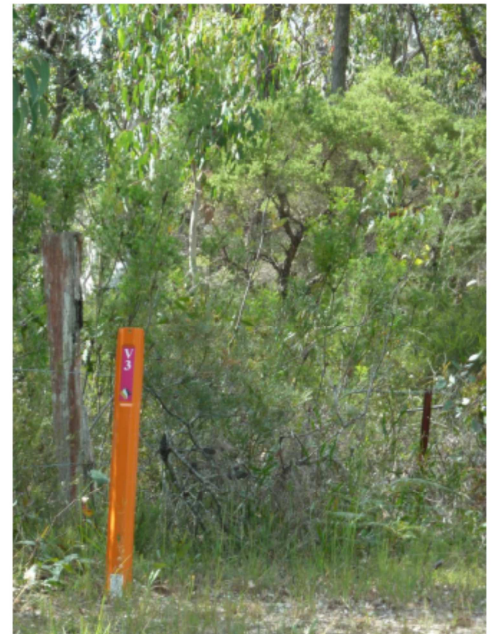


Photo: Roadside Vegetation V3 (Ground Orchids) Marker Posts (HCCREMS)

## Learnings

This project has focussed on the importance of this endangered species in the Gosford local government area, highlighting best management practice for sites along roadsides where *D.bracteata* is located. Importantly, through the delivery of this project in partnership with HCCREMS, an opportunity was created to proactively assist Council to meet its legislative compliance obligations for this species while supporting their desire to implement best practise management approaches.

Gosford Council is also in the process of preparing a draft Environmental Assessment (EA) incorporating the control measures, including orchid locations, type and extent of works, methodology, vehicle practices, etc. The recommendations and findings of the outdoor training sessions have also been incorporated into the draft EA to ensure best practice is continually applied.

Council intends to undertake further promotion of the existence of orchids to the wider community, with a focus on neighbouring properties to ensure a collaborative approach to the management of the many ground orchids occurring in the region. There is an opportunity to extend the range of this work to neighbouring local government areas, including Wyong and Lake Macquarie where ground orchids are also prevalent within roadsides.

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The project has identified that further investigation into the symbiotic processes of flora, insects and fungi species that may be associated with the relative persistence of *D. bracteata* in the Kulnura and Mangrove Mountain area would assist in developing a comprehensive and adaptive management program, not only for *D. bracteata* but also other locally and regionally significant ground orchid species.

The identification of orchid species in the region has come under review by the Royal Botanic Gardens with the reclassifications of the Kulnura and Mangrove Mountain populations. This may affect the listing of this species as endangered, however regardless of this process ground orchids are still protected under the *National Parks and Wildlife Act 1974*.

## Contacts

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