

# Carpobrotus

## confusion and hybridisation along our coastline

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*C. edulis* x *C. virescens* (hybrid) flower

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The commonly occurring native succulent, *Carpobrotus virescens* or Coastal Pigface as it is affectionately called, is found along the south west coastline and is a popular species used in coastal restoration projects across the region.

The relatively vigorous growth and prostrate habit of this species makes it a very effective dune stabiliser and ground cover. Its prominent, colourful flowers provide significant aesthetic value to native coastal dune vegetation.

The non-native Pigface (*Carpobrotus edulis*), originally from South Africa, has established populations across the south west, including coastal areas and continues to create significant management issues in many other parts of the world. Its strong vigorous growth and invasiveness means it has the ability to quickly out-compete other native species.

Active hybridisation occurring between these species is an issue currently receiving attention from some scientists and coastcare groups, with these hybrids having the potential to further complicate management of the invasive non-native Pigface. Differentiation between the native and non-native

species has typically focussed on floral colour and basic leaf morphology, which has proven to be relatively inaccurate. This is due to significant morphological and colour variation, particularly with the hybrid, and attempts at identification are usually restricted to the flowering period which occurs between June and January.

In the Perth region, Senior Principal Research Scientist at the Department of Parks and Wildlife, Greg Keighery, has recently been working with Stirling Natural Environment Coastcare to assist with identification and determine where hybridisation has occurred within the group's project sites. In conjunction with field observations undertaken by volunteers in the field, this investigation has indicated that some of the revegetation stock provided to the groups from nurseries has been the non-native rather than the native variety.

To assist coastal land managers and community groups, Mr Keighery has compiled an unpublished report on the identification of these species. In addition, digital mapping of the species' locations over the past four years with ecologist Dr Judy Fisher has provided an effective tool to assist with locating suitable

collection sites for propagation, excluding areas known to contain introduced or hybridised populations.

These investigations raise concerns over the diligence required of propagators when collecting seeds and vegetative materials of *Carpobrotus* and it is recommended to take a precautionary approach when using this species for revegetation, through the following actions:

- Identifying *Carpobrotus edulis* and hybrids and only collecting from confirmed *Carpobrotus virescens* individuals.
- Ensuring that *Carpobrotus edulis* and hybrids are completely removed from the revegetation area well before planting any *Carpobrotus virescens*.
- Ongoing monitoring of revegetation sites that have utilised this species, including mapping of populations.

It is understood that additional research is currently being conducted on these species through the CSIRO. Perth Region NRM will continue to monitor and share information on any developments that concern these species.



Fruits of (Left to Right) *C. edulis*, hybrid and *C. virescens*.  
Photo by Greg Keighery



Greg Keighery and Members of SNEC examining *Carpobrotus* in the field. Photo by Rae Kolb

For further information please contact Alex Johnston at [cco@cottesloe.wa.gov.au](mailto:cco@cottesloe.wa.gov.au). Greg Keighery's report on *Carpobrotus* identification is available upon request.