

TREES AS WEEDS
or
WHEN YOU CAN'T SEE THE WOODS FOR THE WEEDS

Greg Keighery

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INTRODUCTION

There is currently considerable public, private and individual effort and enthusiasm directed towards "REVEGETATING, REGENERATING, RESTORING, RETAINING AND RE-GREENING AUSTRALIA". These efforts are obviously to be assisted and encouraged, however one must remember that each has very different aims and outcomes, although they are not, of course, mutually exclusive, nor should they be.

We should aim for these activities to enhance the natural environment, not degrade with it by introducing new weeds.

BACKGROUND

Weeds enter Bushland via disturbance. They have the greatest problems at the seedling stage, and if we deliberately nurture them through this establishment phase, then the chance of their seedlings establishing in adjacent bushland after disturbance is much enhanced. This should always be considered when planting Arboreta, shelter belts, road verges, gardens or rehabilitation/revegetation areas in or adjacent to remnant bushland. In bushland areas use local plants if possible. Monitor your plantings to see what has happened. Advise clients of potential side effects. Place Arboreta away from bushland areas.

CASE STUDIES

KINGS PARK

Numerous examples of escapes

Old garden plantings of the 1930's; Kurrajongs, Buckthorn, Peppermints and Spotted gums are now widespread in the 350 hectares of bushland

Bangalay gums planted as honour avenues in the 1950's have spread about 100 metres into the bushland

Acacia lasiocalyx, Geraldton Wax, Golden Wattle and Mt. Morgan Wattle planted in the 1960's are now spreading rapidly into the bushland after the 1991 fire

WOODVALE NATURE RESERVE

Diplolaena dampieri

This shrub was planted in 1984, as an amenity planting by the new library. In 1992 there are 4 new populations, comprising 13 plants of this species around the carpark. The futherest being 50 metres upslope!

PRINCIPLES

From the table, and attached notes you can see that plants that grow fast and seed prolifically make the best weeds. However, you can also note that it is very difficult to predict which species will go weedy and where, probably one should be most cautious about Wattles and Eucalypts.

Table One : Weedy Trees

**Acacia elata* (Cedar wattle) Scattered in forest Perth-Albany
 ***A. farnesiana* (Mimosa Bush) Widespread Pilbara and Kimberley
 **A. floribunda* (Catkin wattle) escaping from Arboretum at Dryandra
 **A. karoo* (Karoo Thorn) Banks of Swan River at Midland
A. lasiocalyx Escaped from ornamental plantings at Kings Park
A. blakelyi Escaped from ornamental plantings at Kings Park

***Ailanthus altissima* (Tree of Heaven) Roadverges and creeks in Perth area

AGONIS FLEIUOSA (Peppermint) Escaped from plantings at Kings Park and Yanchep, now very well established in Banksia woodland

**Callitris huegelii* (glauca) (White cypress pine) Escaping from Dryandra Arboretum
 **Callitris columellaris* (Coastal Cypress Pine) Escaping from plantings at North Dandalup and John Forrest Nat. Park.
C. robusta (Rottneest Island Pine) Escaping from Dryandra Arboretum, and along Gura road.

**Casuarina equisetifolia* (Coastal She-Oak) Naturalised from beach windbreak plantings south of Geraldton

***Cinnamomum camphorum* (Camphor Laurel) Spreading along creeklines at Mundaring and Jarrahdale

***Cytissus proliferus* (Tree lucerne) Widespread on roadverges in parts of the northern Jarrah forest

***Delonix regia* (Poinciana) Naturalised on Koolan Island, a serious weed of rainforest patches in the Northern Territory.

**Eucalyptus botryoides* (Bangalay) Spreading into bushland from roadside plantings at Kings Park
 **E. cladocalyx* (Sugar Gum) Spreading into bushland from roadside plantings at Kings Park
E. conferruminata (Bald Island Marlock) Escaping from plantings at Augusta
 **E. globulus* (Blue Gum) Escaping from shelter belt plantings into adjacent heath at Denmark
 **E. ? muellerana* (Yellow Stringybark) Escaping from plantings at Shannon
 **E. polyanthemus* (Red Box) Escaping from plantings at Yanchep National Park.
 **E. saligna* (Sydney Blue Gum) Road verge escape in the Perth area

***Ficus carica* (Fig) Common along disturbed river edges on the coastal plain near Perth

***Fraxinus* sp (Ash) Forms large suckering clones along the Swan River and creeks in the Nannup-Bridgetown area.

Hakea francisiana (Narukalja) Escaping from Dryandra Arboretum, and at the Fire tower.

**Lagunaria patersonii* (Norfolk island hibiscus) Plants found growing on St. Alouarn Island off Augusta, probably fruits floated from plantings at Augusta

***LEUCAENA LEUCOCEPHALA* (Leucaena) Widespread weed of swamps and River banks in Kimberley, introduced for fodder

LEPTOSPERMUM LAEVIGATUM (Victorian tea tree) Localised but widespread populations from Albany to Jurien Bay. Potentially a very serious weed of coastal heathlands.

***Mangifera indica* (Mango) Isolated garden secapes in the Kimberley.

***Olea europea* (Olive) Isolated garden secapes in the Tuart forest and Swan Coastal Plain

***Parkinsonia aculeata* (Parkinsonia) Widespread weed of swamps and River banks in Kimberley, introduced for ?fodder

***Pinus pinaster* ()
 ***P. radiata* (Monterey Pine) Both species spreading in adjacent Banksia, Jarrah and Tuart woodlands and heath from plantations

**PITTOSPORUM UNDULATUM* (Sweet Pittosporum) Isolated populations in Jarrah or Karri forest from Albany to Margaret River. Potentially a very serious weed, as it is already in Victoria.

***Plantanus orientalis* (Plane) Self seeding populations have appeared around seepage areas along Mounts Bay Road from street trees.

***Populus alba* (White Poplar)

***P. nigra* "Italica" (Lombardy poplar) Have formed very large suckering clones around wetlands where they have been planted, smothering lower growing vegetation.

***Prosopis juliflora* Serious weed of pastoral areas throughout Australia, introduced for fodder.

***Robinia pseudacacia* (Black Locust) Has formed very large suckering clones around wetlands where planted, smothering lower growing vegetation.

***Rosa rubiginosa* (Sweet Briar) Scattered along Disturbed creeklines in the Donnybrook-Nannup area.

***Salix babylonica* (Weeping Willow) Scattered suckering trees along disturbed creeklines

***Schinus molle* (Pepper Tree) Scattered plants on road verges in the wetter forest areas

***S. terebinthifolius* (Broadleaf Pepper Tree) Widespread weed along Swan River

***TAMARIX APHYLLA* (Flowering Cypress) Serious weed of arid riverine sites in the Northern Territory, naturalised along Avon River at Toodyay

***Washingtonia filifera* (Cotton Palm) Naturalised on the Fortesque River at Millstream

TABLE TWO : LARGE SHRUBS AS WEEDS

Alhagi maurorum (Camel Thorn) Naturalised around Kalgoorlie

Banksia canei (Mountain Banksia) Escaped from ornamental plantings on Borden road, N.E. of Albany

Caesalpinia gilliesii (Bird of Paradise) Scattered populations around towns in the Goldfields, escaped from ornamental plantings

Calotropis procera (Kapok Bush) Widespread and serious weed in the Kimberley

Senna occidentalis () Widespread weed in Kimberley

Chamelaucium uncinatum (Geraldton Wax) Escaped from ornamental plantings at numerous sites on the Swan Coastal Plain

Coprosma repens (Mirror Bush) Garden escape in Albany area, serious weed in Victoria

Cotoneaster pannosus (Cotoneaster) Scattered plants on road verges in the wetter forest areas

C. glaucophyllus (Cotoneaster) Scattered plants on road verges in the wetter forest areas

Diplolaena dampieri () Escaped at Woodvale nature reserve from ornamental plantings

Dodonea viscosa "Purpurea" Garden escape in Augusta area

Grevillea olivacea () Escaping from plantings at Woodmans Point

Lantana camara (Lantana) Widespread weed along Swan River

LAVATERA ARBorea (Tree Mallow) Serious weed on offshore islands, replaces native island endemic mallow, introduced as an ornamental.