

Rooikrans / Red-eye wattle

Acacia cyclops

The specific name *cyclops* is from Greek, meaning 'round-eye' alluding to the coiling tendency of the fruits.

A. cyclops is native to southern Western Australia, known as the circle-eye-seeded acacia or coastal wattle. In Australia it is also an aggressive growing plant spreading from sandy or sandstone soils into coastal bush and heathland where in windy coastal sites, it forms hedges less than 0.5 m high.

- a dense, evergreen, bushy shrub, often multi-stemmed. It can also grow as a small tree to 3-8 m tall, with a trunk of 20 cm in diameter and a rounded crown.
- Foliage light-green, simple flattened phyllodes (modified leafstalks), narrowly oblong, varnished when young, and growing in a downward vertical position. Phyllodes are 4-9 cm long and 0.5-1.3 cm broad, nearly straight; blunt with a short, hard point curved to one side, tapering to a long-pointed base; stiff and leathery, with 3-7 main veins arising from the base, and 1 small gland on the upper edge at the base. Twigs are slender and angled.
- Flowers are lemon yellow, in clusters of two to three. Pods are narrowly oblong, 4-12 cm long and 0.8-1.2 cm broad, flattened, curved or twisted, greyish brown to dark brown and leathery.
- Pods are not shed but remain on the tree, exposing their seeds to predators and dispersers. Seeds are elliptical, flattened, 5 mm long, dark brown and encircled by a thick, red, thread-like oily stalk or funicle.



A. cyclops has become a very successful colonizer in South Africa and is classified as a weed, speculating that it first arrived in South Africa when introduced to Baron von Ludwig's private garden in the 1830s and was used to plant the Cape Flats from approximately 1847. It has been widely introduced outside its native range, particularly across Africa, where it has been used for dune stabilization, for firewood, as a fodder tree and as an ornamental.

In South Africa, *A. cyclops* invades the lowland fynbos of Cape Province and is also established in mountain forest. It is beginning to invade southern forest, eastern Cape Forest and succulent karroo, the dense cover shading out native vegetation. Once established over large areas, it is difficult to remove or replace. It forms dense impenetrable stands that shade out native vegetation and that fire promotes spread into natural vegetation and is invasive in South African forest gaps, dunes and along roadsides and watercourses (CABI 2021).

Rooikrans is a problem because it competes with indigenous species for resources, which threatens biodiversity. It also can increase the severity of fire (ISSA 2021).

In summary the risks and impact factors one has to consider, include but is not limited to factors i.e. Invasiveness, Impact outcomes and legal conformance.

Invasiveness - Proved invasive outside its native range; Highly adaptable to different environments; Tolerates, or benefits from, cultivation, browsing pressure, mutilation, fire, etc as well as high reproductive potential, contain propagules that can remain viable for more than one year

Impact outcomes - Damaged ecosystem services, Ecosystem change/ habitat alteration, Reduced native biodiversity, Difficult/costly to control (CABI 2021)

Legal conformance

- National Environmental Management: Biodiversity Act (NEMBA), 2004
- Conservation of Agricultural Resources Act (CARA), 1983
- National Water Act (NWA), 1998

Acacia cyclops is classified as a highly invasive species.

It is a **category 2** declared invader in South Africa according to the Department of Agriculture, Conservation of Agricultural Resources Act, 1983

What does category 2 mean?

According to the NEMBA Invasive species List, Category 2 species are -

- Invasive species regulated by area.
- A demarcation permit is required to import, possess, grow, breed, move, sell, buy or accept as a gift any plants listed as Category 2 plants.
- No permits will be issued for Category 2 plants to exist in riparian zones. (SANA 2013)

These are plants with the proven potential of becoming invasive, but which nevertheless have certain beneficial properties that warrant their continued presence in certain circumstances, e.g. to serve the purpose as a commercial or utility resource i.e.

- a woodlot, building material, animal fodder
- shelter belt,
- soil stabilisation,
- medicinal or own consumption
- cultivated in biological control reserves, where the plants will serve as host plants for the breeding of biological control agents.

The land user needs to obtain a water use license and all reasonable steps must be taken to curtail the spreading of seeds or vegetatively reproducing material outside the demarcated area, and all specimens outside the demarcated area have to be controlled. (ARC 2021)

The growing of Category 2 plants in a demarcated area qualifies as a water use and is subject to the requirements of section 21 of the National Water Act, 1998 (Act No. 36 of 1998). Category 2 plants may not occur within 30 m from the 1:50 year flood line of watercourses or wetlands, unless authorisation has been obtained in terms of the National Water Act. (ARC 2021)

References:

CAB International (CABI). 2021. Compendium of invasive species. <https://www.cabi.org/isc/datasheet/2197>

Invasive Species SA (ISSA). 2021. Red-eye Wattle <http://www.invasives.org.za/plants/plants-a-z/item/194-red-eye-wattle>

Agricultural Resources Centre (ARC). 2021. Legal-Obligations-Regarding-Invasive-Alien-Plants-in-South-Africa. <https://www.arc.agric.za/arc-ppri/weeds/Pages/Legal-Obligations-Regarding-Invasive-Alien-Plants-in-South-Africa.aspx>

SA Nursery Association (SANA). 2013. Invasive Alien Plants – NEMBA List. <https://sana.co.za/2013/01/16/invasive-alien-plants-nemba-list/>