

# LIVING WITH GLOSSY BLACKS:

## FEED TREE PROPAGATION & PLANTING

The Glossy Black-Cockatoo is a threatened species that feeds almost exclusively on the seeds in the cones of she-oak trees (*Allocasuarina* and *Casuarina* species).

This fact sheet will give you information about how to propagate and plant she-oak trees.

In south-east Queensland and north-east New South Wales, the Forest She-oak (*Allocasuarina torulosa*) and Black She-oak (*Allocasuarina littoralis*) are preferred by these fussy eaters. In the coastal and tablelands areas, the birds also forage on Coastal She-oak (*Casuarina equisetifolia*).

Other Glossy Black Conservancy factsheets provide more information on Glossy Black-Cockatoos and individual she-oak species. Please refer to Fact Sheet 2 & Fact Sheet 5 on the Glossy Black Conservancy web site.

### Permit requirements & permission

Before collecting she-oak seeds for propagation, you must obtain the relevant permit (many local native species are protected under legislation) and also permission from the landowner.

To find out if a permit is needed for a particular species, check requirements under the New South Wales (NSW) *Threatened Species Conservation Act 1995*, or Queensland *Nature Conservation Act 1992*.

Permits are required to collect seed (or any plant or animal material) from National Parks, State Forests and Timber Reserves; contact the relevant government department in your State to obtain the appropriate permit.

Before collecting seed from Council owned or managed land, contact Council's Environment Branch to obtain permission.

Do not collect seed from private land without first contacting the landowner and asking permission.

Take care of yourself, others and your environment when collecting seed! E.g., wear protective clothing, use tools and equipment appropriately, respect cultural values and the landowner's property, minimise spread of weeds or pathogens, and don't damage wildlife habitat.

### Seed collection guidelines

She-oaks hold their cones over a number of years. Therefore it is best to collect mature, unopened seed cones from trees growing in the area of the planting site (ie- local provenance).

Collect cones from a number of healthy trees (preferably 10 or more) and don't gather more than 20% of the cones growing on any one tree.

Similar quantities should be collected from each tree so that no individual is favoured or underrepresented in the genetic make-up of the seedlot. The way we sample individual plants at the collection location strongly influences the genetic quality of seed collected.

The seed collected from individual plants is usually combined or 'bulked' together to form a seedlot and mixed to a homogeneous blend.

Keep thorough records of any seed collected, eg. date, time, location and species.



*Allocasuarina littoralis* unopened cones (Photo credit: T.Fountain)

Cones can be harvested once they have reached maturity, indicated by a change in colour from green to pale/dark brown within a year of flowering. Check that the seed has not already been released from the cone, by looking to see if the paired valves (the flower bracteoles) of the cones are closed. Use secateurs or pole pruners to remove unopened cones from branches.



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## Cone opening & seed storage

Mature cones open readily if placed in a dry, warm position. This can be achieved by placing cones in a paper bag and leaving them for a few days to dry. Cones will open to release seeds.

Cut open a few seeds in your collection to confirm the proportion that are in good condition. This will give you an indication of likely germination success. Seeds may lose viability quickly once released from the cone; minimise this by storing in a dry and cool place safe from rodents and insects.



(Left) Winged *Allocasuarina* seeds. (Right) Cut seeds showing a firm white endosperm of a good condition seed (top) and shrivelled endosperm of a poor seed (bottom). (Photo credit: A. Cochrane)

## Germination of seeds

Seed germination readily occurs without pre-treatment. Seeds can be sown in seed raising trays or pots. Use a light, well drained potting mix and very lightly cover the seed. Do not over-water.

With reasonable temperatures, above 22°C, seeds will germinate quickly, often as soon as a week after sowing.

## Seedling maintenance

Seedlings can be transferred to individual tubes or pots when 3-10 cm tall; this encourages root systems. Water plants regularly until they are ready for planting - around 25-30 cm tall.

## Planting & growth

She-oaks are typically dioecious, meaning male and female flowers are found on separate trees. To ensure adequate cone-producing female trees are planted, a minimum of 10 trees should be planted in any area.

To plant, dig a hole slightly larger than the root-ball, remove the plant from the pot and place it in the hole; the surface of the potting mix should be just below the soil surface. Leave a slight depression to catch and hold moisture.

Once planted, apply mulch, mulch mats, tree guards or watering systems as required. Mulching will aid weed control and moisture retention.

## Companion planting

To avoid a monoculture and help foster growth and development, a diversity of species and numbers should be planted. Eucalypt and she-oak species generally grow well together. Contact your local Landcare, environment group or Council for advice on other appropriate species.

## Other uses

She-oaks have a range of purposes apart from feeding Glossy Black-Cockatoos! These include:

- Windbreak, shadeline, screening
- Pollen for bees and other insects
- Timber
- Habitat for wildlife
- Revegetation and restoration
- Gully and coastal erosion control
- Ornamental, street tree
- Weed suppression/control



Stand of *Allocasuarina torulosa* trees (Photo credit: T.Fountain)

