

Macadamias belong to the Proteaceae family, a line of ancient flowering plants that arose when Australia was still part of Gondwana, 90-100 million years ago. Other well-known members of Proteaceae include Banksia, Grevillea and Hakea.

There are four Macadamia species, all are native to Australia and all are threatened in the wild.

Where to Look for Macadamias

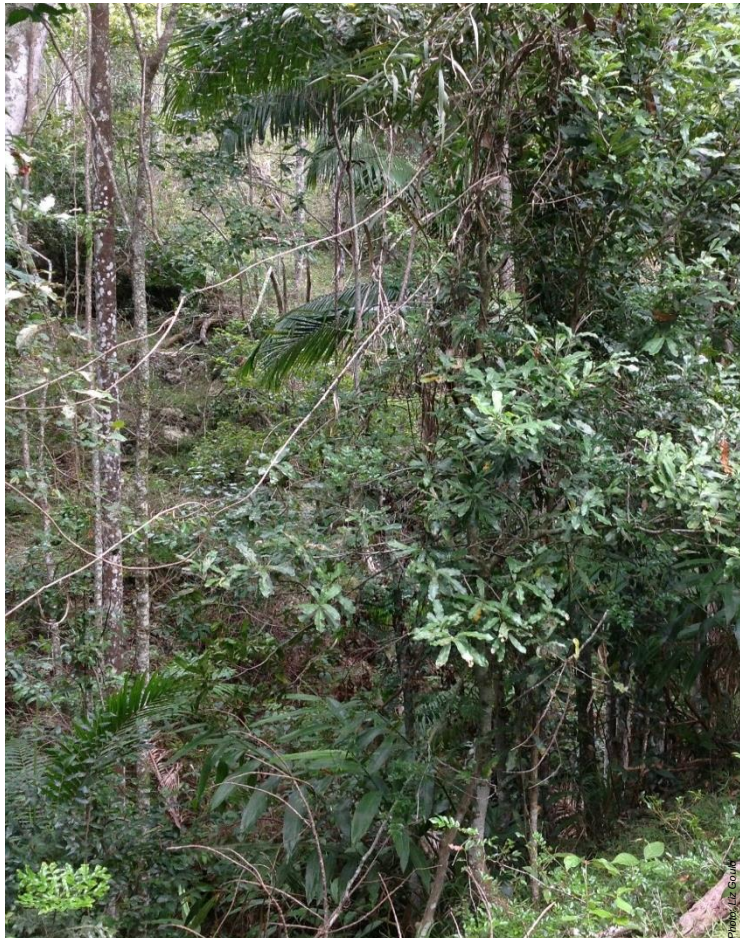
Macadamias naturally occur in the coastal subtropical rainforests of north-east New South Wales and south-east Queensland, with a tiny outlier population in central Queensland.

Extensive clearing has caused the large-scale loss of wild macadamia, with many populations now scattered in fragmented rainforest remnants on public and private land.

Fortunately, the highly desired, edible nut produced by two types (species) of macadamia, meant that some of these macadamias were left standing when the rainforest around them was cleared.

The delicious nuts also led to planting of macadamias well outside their natural distribution, and they can now be found in urban backyards, bush blocks, old orchards, parks and reserves across Australia and overseas.

In the wild (below), macadamias can be difficult to pick out amongst the other rainforest trees. They can also look different from cultivated trees, are often multi-stemmed (below right) and produce far fewer flowers and nuts than cultivated trees.



What to Look for

Macadamia are generally long-lived, small trees, with green leaves all year around. They are often multi-stemmed rather than having a single trunk.

In their natural rainforest environment, macadamias look quite different from the large, dense, rounded trees familiar to many backyards and orchards.

Within rainforests, macadamias may have many trunks, relatively sparse leaves and few flowers, though trees receiving more light (such as through a forest gap or those growing on the edge of the rainforest) may have denser foliage and more flowers.

Identifying Features of Macadamias

There are four species of macadamia:

1. Queensland Nut (*Macadamia integrifolia*);
2. Rough-shelled Macadamia (*M. tetraphylla*);
3. Gympie Nut (*M. ternifolia*); and
4. Bulberin Nut (*M. jansenii*).

The first three listed above have overlapping distributions and can be found in the same habitats; by comparison, Bulberin Nut is found only in a small area of central Queensland.

Key features for distinguishing macadamias are:

- Leaf shape and size;
- Leaf edge and tips;
- Flower colour; and
- Nut size and shell.

The table overleaf compares these features for each macadamia species.



Common Name
Scientific Name

Status¹

LEAVES

Leaves per node

Leaf tips

Leaf edges

New flush colour

FLOWERS

Colour

NUTS

Shells

Edibility

Size

Queensland Nut

Macadamia integrifolia

Vulnerable

usually 3 (may be 2 or 4)



rounded or pointed



x 0.2-0.5

Sketch: Gwen Harden

smooth, wavy (mature trees)
coarsely serrated (juvenile trees)

light green



Photo: Catherine Mack

cream



Photo: Paul Donnell

thick, hard, smooth

edible



x 1

Rough-shelled Macadamia

Macadamia tetraphylla

Vulnerable

usually 4 (can be 3 or 5)



abruptly rounded with stiff point



x 0.2-0.5

Sketch: Gwen Harden

densely serrated
no leaf stalk (petiole)

red to pink



Photo: Paul Donnell

pinkish-purple



Photo: Paul Donnell

thick, hard, bumpy

edible



x 1

Gympie Nut

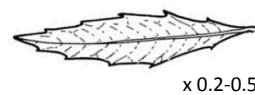
Macadamia ternifolia

Vulnerable

usually 3



sharply pointed



x 0.2-0.5

Sketch: Gwen Harden

moderately serrated

pink / pinkish-red



Photo: Paul Donnell

pinkish or cream



Photo: Paul Donnell

thin, hard, smooth

inedible / very bitter



x 1

Bulberin Nut

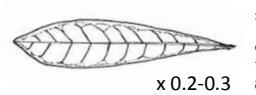
Macadamia janseni

Endangered

usually 3



pointed



x 0.2-0.3

Sketch: Gwen Harden

smooth, wavy

green or pink



Photo: Liz Gould

cream-brown



Photo: Alison Sharpcott

thin, hard, smooth

inedible / slightly bitter



x 1

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For more information

- www.hlw.org.au/macadamias
- www.environment.gov.au/biodiversity
- www.wildmacadamias.org.au

References

¹Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and Queensland Nature Conservation Act 1992.

Stanley, T.D. and Ross, E.M. 2002. Flora of South-eastern Queensland Volume 2. Queensland Department of Primary Industries, Brisbane

Harden, G., McDonald, B. and Williams, J. 2006. Rainforest Trees and Shrubs: A Field Guide to their Identification. Gwen Harden Publishing.