



* SILHOUETTES INDICATE ACTUAL SIZE.

NATIVE BEES OF THE NORTHERN TERRITORY

ILLUSTRATED BY *Gina Cranston* WITH THE GUIDANCE OF DR MICHAEL BATLEY FROM THE AUSTRALIAN MUSEUM © DR ANNE DOLLIN FROM THE AUSTRALIAN NATIVE BEE RESEARCH CENTRE (AUSSIEBEE.COM.AU)

THIS POSTER SHOWCASES A SMALL SELECTION OF THE MANY AND VARIED NATIVE BEE SPECIES THAT OCCUR IN THIS TERRITORY. THE ARTIST HAS CHOSEN TO DEPICT FEMALES AS THEY ARE MORE LIKELY TO BE SEEN. MALES MAY DIFFER IN APPEARANCE. BEES THAT DO NOT HAVE WIDELY USED COMMON NAMES ARE REFERRED TO HERE BY THEIR SCIENTIFIC NAMES ONLY.



Territory

NATIVE PLANTS

BEE ATTRACTING SPECIES

- # Albizia Lebbeck
- # Allosyncarpia ternata
- # **Alphitonia excelsa** - Flowers at variable times to provide constant food source.
- # **Alstonia actinophylla**
- # **Bankisa dentata**
- # **Calophyllum inophyllum**
- # **Corymbia sp** - The mainstay of the Australian bush for bees.
- # **Eucalyptus sp** - The mainstay of the Australian bush for bees.
- # **Leptospermum madidum** - Worked by stingless bees for pollen.
- # **Maranthes corymbosa**
- # **Melaleuca sp** - The mainstay of the Australian bush for bees.
- # **Milletia pinnata**
- # **Nauclea orientalis**
- # **Peltophorum**
- # **Syzygium sp** - Liked by stingless bees.
- # **Terminalia microcarpa**
- # **Timonius timon**

SHRUBS

- # **Acacia sp** - Source of pollen from flowers and nectar from extrafloral nectaries
- # **Clerodendrum floribundum**
- # **Grevillia sp** - Worked by stingless bees, especially for pollen, but also nectar
- # **Meiogyne cylindrocarpa**
- # **Murraya paniculata** - Regular flowering
- # **Osbeckia australiana**
- # **Xanthostemon paradoxus**

GROUND COVERS

- # **Ipomea pes-carpa & Canavalia rosea** - DPI trialing NT Native ground covers as flowering bee attracting specimens

Native Plants for Native Bees

Creating a garden that provides a home for native bees is less about selecting specific species and more about having a broad diversity of species. The key is ensuring there are flowering plants available all year round to provide an ongoing food source for bees. This list is in no way exact or exhaustive, it has been put together from existing published materials and anecdotal information from local bee keepers. It is ordered by flowering month to help you select plants that flower throughout the year.

Flowering Period	Species	Form
Jan-May	<i>Buckinghamia celsissima</i> (Ivory Curl Tree)	tree
Jan-Dec	<i>Asteromyrtus magnifica</i>	shrub/small tree
Jan-Dec	<i>Asteromyrtus symphyocarpa</i> (Linimet Tree)	tree
Jan-Dec	<i>Canavalia rosea</i>	ground cover
Jan-Dec	<i>Clerodendrum floribundum</i> (Lolly Bush)	shrub/small tree
Jan-Dec	<i>Ipomoea pescaprae</i> (Beach Morning Glory)	groundcover
Jan-Dec	<i>Xanthostemon paradoxus</i> (Bridal tree)	tree
Feb-Jun	<i>Sesbania muelleri</i>	shrub
Feb-Aug	<i>Corymbia dichromophloia</i> (Small-fruit Bloodwood)	tree
Feb-Sep	<i>Osbeckia australiana</i>	small shrub
Mar-Apr	<i>Desmodium heterocarpon</i>	small shrub
Mar-Jun	<i>Corymbia polycarpa</i> (Long-fruited Bloodwood)	tree
Mar-Oct	<i>Senna venusta</i> (Graceful Cassia)	shrub
Apr-Jun	<i>Corymbia bleeseri</i> (Glossy-leaved Bloodwood)	tree
Apr-Aug	<i>Grevillea aurea</i>	shrub
Apr-Sep	<i>Melaleuca leucadendra</i> (Weeping Paperbark)	tree
May-Jul	<i>Eucalyptus phoenicea</i> (Scarlett Gum)	tree
May-Aug	<i>Acacia difficillus</i> (River Wattle)	shrub/small tree
May-Aug	<i>Eucalyptus miniata</i> (Woolybutt)	tree
May-Sep	<i>Grevillea pteridifolia</i> (Fern-leaved Grevillea)	tree
May-Nov	<i>Timonius timon</i>	tree
May-Sept	<i>Maranthes corymbosa</i> (White Cloud Tree)	tree
Jun-Aug	<i>Eucalyptus tetradonta</i> (Stringybark)	tree
Jun-Aug	<i>Xanthostemon chrysanthus</i> (Golden penda)	tree

Jun-Aug	<i>Xanthostemon verticillatus</i> (Bloomfield penda)	tree
Jun-Sep	<i>Bauhinia cunninghamii</i> (Bean Tree)	tree
Jun-Oct	<i>Jacksonia dilatata</i> (Jacksonia)	shrub
Jul-Oct	<i>Grevillea parallela</i> (Silver Grevillea)	shrub/small tree
Jul-Oct	<i>Melaleuca argentea</i> (Silver-leaved Paperbark)	tree
Jul-Oct	<i>Planchonia careya</i> (Cocky apple)	tree
Jul-Nov	<i>Leptospermum madidum</i> (Weeping Tea Tree)	tree
Aug-Sep	<i>Alstonia actinophylla</i> (Northern Milkwood)	tree
Aug-Nov	<i>Erythrophleum chlorostachys</i> (Ironwood)	tree
Aug-Nov	<i>Lophopetalum arnhemicum</i>	tree
Aug-Nov	<i>Melaleuca dealbata</i> (Blue Paperbark)	tree
Aug-Jan	<i>Peltophorum pterocarpum</i> (Yellow Flame Tree)	tree
Sep-Nov	<i>Syzygium nervosum</i> (Daly River satinash)	tree
Sep-Nov	<i>Millettia pinnata</i> (Pongamia/Indian Beech)	tree
Sep-Dec	<i>Eucalyptus tectifica</i> (Darwin Box/ Grey Box)	tree
Sep-Dec	<i>Nauclea orientalis</i> (Leichhardt Tree)	tree
Sep-Dec	<i>Syzygium armstrongii</i> (Small white bush apple)	tree
Sep-Dec	<i>Syzygium forte</i> (White bush apple)	tree
Sep-Dec	<i>Terminalia microcarpa</i> (Damson Plum)	tree
Sep-Dec	<i>Pavetta brownii</i>	shrub
Sep-Jan	<i>Corymbia bella</i> (Ghost Gum)	tree
Oct-Nov	<i>Syzygium hemilamprum</i> (Blush satinash)	tree
Oct-Dec	<i>Allosyncarpia ternata</i> (Anbinik)	tree
Oct-Dec	<i>Syzygium austral</i> (Red brush cherry)	tree
Oct-Feb	<i>Crinum arenarium</i> (Field lily)	ground cover
Oct-Apr	<i>Grevillea pluricaulis</i>	shrub
Oct-Apr	<i>Melastoma malabathricum</i> (Native Lasiandra)	shrub
Oct-Jun	<i>Corymbia ptychocarpa</i> (Swamp Bloodwood)	tree
Oct-July	<i>Chrysopogon fallax</i> (Golden Beard Grass)	grass/groundcover
Nov-Feb	<i>Davidsonia pruriens</i> (Davidson's Plum)	tree
Nov-Mar	<i>Corymbia latifolia</i> (Round-leaved Bloodwood)	tree
Nov-Mar	<i>Corymbia porrecta</i> (Grey Bloodwood)	tree
Nov-Apr	<i>Curcuma australisica</i> (Native ginger)	ground cover
Nov-Apr	<i>Grevillea goodii</i>	shrub
Nov-Apr	<i>Melaleuca viridiflora</i>	tree
Nov-Dec	<i>Muraya paniculata</i>	shrub/small tree
Dec-Feb	<i>Calophyllum inophyllum</i> (Beauty Leaf)	tree
Dec-Apr	<i>Banksia dentata</i>	shrub
Dec-May	<i>Corymbia ferruginea</i> (Rusty Bloodwood)	tree
Dec-May	<i>Grevillea formosa</i>	groundcover
n/a	<i>Callitris intratropica</i> (Northern cypress pine)* for collecting resin	tree

Author: Kat McNamara. Thank you to Barry Conde and Tim Moore for your invaluable insights. Flowering seasons from *Native plants of Northern Australia* by John Brock.

STINGLESS BEES IN DARWIN and THE TOP END

Stingless bees are very small black bees about 4mm long much smaller than honeybees which are about 15mm long. Stingless bees are similar to honeybees in that they are highly social insects. They exist in colonies consisting of one queen, 100 or so male drones and 1,000 – 10,000 adult workers.

They are Stingless, but actually have vestigial stings which don't work.

They resemble small bush flies, but on closer examination have four wings rather than the two wings of flies.

They nest in hollow logs, branches, and in the Darwin area in man-made structures such as hollow steel posts, Besser brick work, in hollow wall panelling, in shoe boxes and other "containers".

About 600 species occur throughout the warm tropics and subtropics of the world with especially high numbers of species in Central and South America. There are eleven named species in Australia.

5 species of Stingless bees are known in Greater Darwin area. These are two species of *Tetragonula*, *T. mellipes* and *T. NT hockingsi* in the moister coastal areas, and three species of *Astroplebia*, *A. australis*, *A. magna* and *A. essingtoni*. In the drier inland areas.

Stingless bees are easy to keep in specially constructed boxes. The most common species in Darwin, *T. mellipes* has small nests and so needs the smaller (2 compartment) Mini OATH box or the (3 compartment) Honey Mini OATH box. Recently a small one-compartment box was trialled successfully for *mellipes*.

Stingless bees make small amounts of a distinctive flavoured honey called Sugarbag in Australia or pot honey overseas. They only make about 1 kg per hive per year compared with 50 – 75kg per hive per year for honeybees. Honeybees store their honey in hexagonal wax cells. Stingless bees store their honey in grape sized pots of propolis, composed of a mixture of plant resin and a small amount of bees' wax.

Barry Conde, M. Agr. Sc. (UQ 1979)
Meliponist (Keeper of Stingless bees)
Native Stingless Bees Leanyer
barry.conde@gmail.com
0484-871-240

Honey (ankung)

Bod (stingless native bees) collect nectar produced by flowering plants and take it back to their nests where they process it into honey. The Kundjeyhmi people recognise six species of bee which produce honey and have individual names for each; **anyalh**, **kardderre**, **kubbulak**, **lorlbban**, **marrkardba** and **nabiwo**. Five of the above species nest in trees or logs but **nabiwo** nests in the ground between rocks and in antbeds.

Honey or sugarbag is a favourite sweet food for **bininj** and is actively sought after. Certain trees provide the bees with good nesting sites and peoplej know to look for them there. The most favoured trees for the the bees include **andjoni** (*Corymbia ferruginea*), **andjuyh** (*Corymbia polycarpa*), **andorok** (*Corymbia latifolia*) and **anbamberre / anngal** (*Corymbia ptychocarpa*). These species produce prolific amounts of flowers which is probably why the bees prefer them for nesting.

The taste and quality of honey depends on the plant species frequented by the bees. Most honey is sweet but that produced from **anbirrim** (*Grevillea pungens*), **anmorlorrk** (*Clerodendrum floribundum*), **andubang** (*Erythrophleum chlorostachys*), **anmarrehwahwah** (*Nauclea orientalis*) and **anwarnbu** (*Xanthostemon psidoides*) is bitter. Whole nests are usually cut out from the trees but the honey can also be soaked up from the nest using fibrous strips of bark.

"Kabidbun ankungken".

"He's climbing up for sugarbag".

As the dry season progresses the honey becomes darker.

Honey was mainly collected by the women who brought it back to camp in a **bulbbe**, a

tightly woven dilly bag sometimes internally lined with **kunbidi** (beeswax) or containers made from the papery bark of **ankorrko / mardderr** (*Melaleuca argentea*), **mamomo / ankod / andal** (*Melaleuca cajuputi*), **anbidubidu** (*Melaleuca viridiflora*) or in the basal sheaths (**kolod**) from the palms **marrunj** (*Hydriastele ramsayi*) and **ankarnbanj** (*Carpentaria acuminata*).



From Thomson 2010 page 86

Good trees for finding ankung:

anbinik	<i>Allosyncarpia ternata</i>
anlombel / anlomdumh	<i>Asteromyrtus symphyocarpa</i>
anlarrh	<i>Callitris intratropica</i>
anberbern	<i>Corymbia bella</i>
andjadbak / ankorri	<i>Corymbia dichromophloia</i>
andjoni	<i>Corymbia ferruginea</i>
andorok	<i>Corymbia latifolia</i>
andjuyh	<i>Corymbia polycarpa</i>
anngal ⁽⁶⁾	<i>Corymbia porrecta</i>
anbamberre / anngal	<i>Corymbia ptychocarpa</i>
andubang	<i>Erythrophleum chlorostachys</i>
andjalen / annokmi	<i>Eucalyptus miniata</i>
anmardba / annerrekmi	<i>Eucalyptus phoenicea</i>
anyawko	<i>Eucalyptus tectifica</i>
anrebel / anbordokorr	<i>Eucalyptus tetradonta</i>
anbarnko / andadjek	<i>Grevillea pteridifolia</i>
anbulu	<i>Xanthostemon paradoxus</i>