

Plants of
'Grasstrees':
A photographic guide

Part 2: Shrubs

Ross McKenzie

“... a traveller should be a botanist, for in all views plants form the chief embellishment.”

Charles Darwin (1839) *Journal of Researches into the Natural History and Geology of the Countries Visited by HMS Beagle*.
Chapter 21. Mauritius to England.

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About the author

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Notice to Guests

This guide is not comprehensive. It covers the plants identified so far on *Grasstrees*. If you come across a plant that is flowering or fruiting and it is not included in this guide, please notify Trish or John Stadtmiller so that it can be investigated and hopefully included in a later edition. Thank you. I hope you enjoy your stay!

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Shrubs - Angiosperms (flowering plants)

Shrubs are woody perennial plants growing up to about 2 m tall (head height) when mature.

There are a wide variety of these plants on *Grasstrees*. In woodland, they form the middle layer of vegetation between the trees and the ground layer of herbaceous (non-woody) plants.

Alternatively, they may be the dominant plants in a particular habitat.

On *Grasstrees*, prominent shrubs are in the grasstree family (Xanthorrhaceae) [of course], the daisy family (Asteraceae), the pea family (Fabaceae), the heath family (Epacridaceae), the tea-tree (myrtle) family (Myrtaceae), the citrus family (Rutaceae), the hopbush family (Sapindaceae), the nightshade family (Solanaceae) and the riceflower family (Thymeleaceae).

Grasstree

***Xanthorrhoea johnsonii* (northern forest grasstree) [Xanthorrhoeaceae]**

- Fire-blackened trunk covered in persistent leaf bases, usually single, but may fork
- Rosette of many drooping thin leaves; previous season's growth may be retained as 'grass skirt' until burned off in fires
- Spear-like flower spike with densely-packed bracts
- Flowers white, star-shaped, crowded on the spike; June-September
- Seed capsules, brown, pointed, each with three valves, embedded in spike bracts



Xanthorrhoea johnsonii (northern forest grasstree): Branched mature plant in habitat: previous season's leaves forming a 'grass skirt' below the rosette of fresh leaves.



Xanthorrhoea johnsonii (northern forest grasstree): Single-trunked mature plants in habitat



Xanthorrhoea johnsonii (northern forest grasstree): Trunk of mature plant in habitat



Xanthorrhoea johnsonii (northern forest grasstree): Fire-blackened persistent leaf bases comprising the trunk



Xanthorrhoea johnsonii (northern forest grasstree): Flowering branched mature plant in habitat



Xanthorrhoea johnsonii (northern forest grasstree): Leaf rosette and flower spike



Xanthorrhoea johnsonii (northern forest grasstree): Young plant with emerging flower spike in bud



Xanthorrhoea johnsonii (northern forest grasstree): Flower spike with individual flowers, each with 6 white stamens and a central style, embedded in dark brown packing bracts



Xanthorrhoea johnsonii (northern forest grasstree): Flowers



Xanthorrhoea johnsonii (northern forest grasstree): Fruiting spike with closed and open seed capsules embedded in dark brown packing bracts. Seeds are visible in some open capsules.

Dead finish & Daisy-bushes

***Cassinia quinquefaria* (dead finish, wild rosemary, cough bush) [Asteraceae]**

- Upright shrub
- White flowers in clusters at branch ends; Summer
- Leaves long narrow



Cassinia quinquefaria (dead finish, wild rosemary, cough bush): Flowering branch



Cassinia quinquefaria (dead finish, wild rosemary, cough bush): Flowering branches



Cassinia quinquefaria (dead finish, wild rosemary, cough bush): Flower head

***Olearia elliptica* (sticky daisy-bush) [Asteraceae]**

- White daisy-type flowers with yellow centres
- Large sticky leaves



Olearia elliptica (sticky daisy-bush): Mature plant in habitat



Olearia elliptica (sticky daisy-bush): Flowering branch



Olearia elliptica (sticky daisy-bush): Flowers



Olearia elliptica (sticky daisy-bush): Leaves; note glossy surface, sticky to the touch



Olearia elliptica (sticky daisy-bush): Stem bark

***Olearia ramosissima* (blue daisy bush) [Asteraceae]**

- Blue flowers
- Very small leaves



Olearia ramosissima (blue daisy-bush): Mature plant in habitat



Olearia ramosissima (blue daisy-bush): Flowering plant



Olearia ramosissima (blue daisy-bush): Flower head



Olearia ramosissima (blue daisy-bush): Flowering branches



Olearia ramosissima (blue daisy-bush): Flowering leafy branches



Olearia ramosissima (blue daisy-bush): Flower head

Heaths

These plants are small shrubs that are prickly to the touch. This is due to their numerous small leaves having sharp points at their ends (pungent pointed leaves).

Flowers have 5 white petals fused at their bases into a short tube.

***Leucopogon melaleuroides* (a beard heath) [Epacridaceae]**

- Upright compact shrub
- Lance-head-shaped leaves with points
- White tubular flowers, hairy inside



Leucopogon melaleuroides (a beard heath): Plant in habitat with flowers and new vegetative growth



Leucopogon melaleucoides (a beard heath): Flower head



Leucopogon melaleucoides (a beard heath): Flower head



Leucopogon melaleucoides (a beard heath): Flowers



Leucopogon melaleucoides (a beard heath): Leaves and stem

***Leucopogon muticus* (a beard heath) [Epacridaceae]**

- Upright spreading shrub
- White tubular flowers, hairy inside



Leucopogon muticus (a beard heath): Mature plant in habitat



Leucopogon muticus (a beard heath): Flowering branches



Leucopogon muticus (a beard heath): Flowering branches



Leucopogon muticus (a beard heath): Flowering branch



Leucopogon muticus (a beard heath): Flowers

Melichrus urceolatus (urn heath) [Epacridaceae]

- Low compact shrub
- White tubular flowers
- Prickly leaves



Melichrus urceolatus (urn heath): Mature plant in habitat



Melicbrus urceolatus (urn heath): Flowering branch



Melicbrus urceolatus (urn heath): Flowering shoot

Sennas

Senna odorata [Caesalpinaceae]

- Yellow senna-type flowers



Senna odorata : Whole plant in habitat



Senna odorata : Flowers

Hopbushes

***Dodonaea viscosa* (sticky hopbush) [Sapindaceae]**

- Broad lanceolate /elliptical bright green leaves
- Male and female flowers on separate plants
- Fruits have 3 papery wings around the seed



Dodonaea viscosa (sticky hopbush) : Whole plant in habitat; photographed near Coonabarabran January 2010



Dodonaea viscosa (sticky hopbush) : Male flowers; photographed near Coonabarabran January 2010



Dodonaea viscosa (sticky hopbush) : Fruit; photographed north of Cobar, October 2010

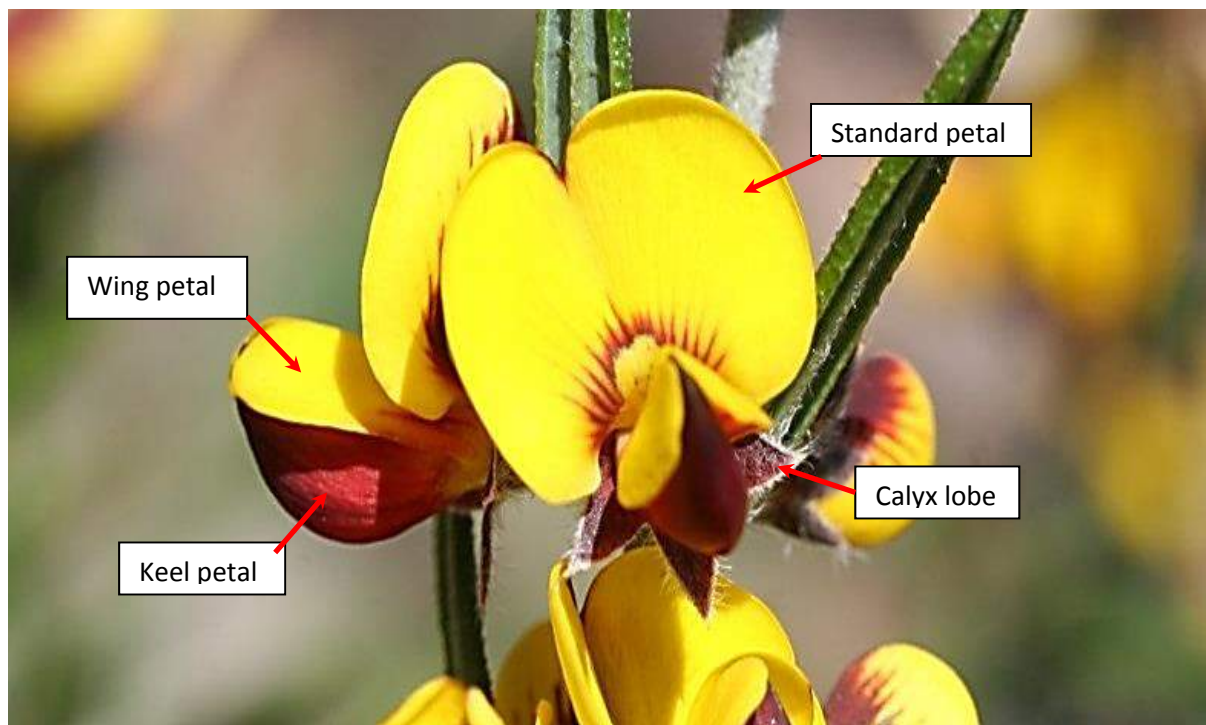
Pea plants

Pea-flowered plants are grouped into the legume Family Fabaceae. Other legume families are Mimosaceae (includes the wattles) and Caesalpinaceae (includes the sennas). Legumes commonly have root nodules that house bacteria which take nitrogen from the air and 'fix' it, that is change it chemically into useable forms that plants absorb and use to build proteins.

Pea-type flowers have a unique structure. They are asymmetrical, having a prominent upright '**standard**' petal and, grouped to the front of this, two inner '**keel**' and two outer '**wing**' petals surrounding the stamens (male) and style (female) in the centre of the flower. Behind all the petals is a whorl of calyx lobes. The whole thing looks a bit like a Victorian-era woman wearing a bonnet. The lines and spots on the standard petal may help visiting insects zero-in on the pollen and nectar that they are seeking, thus helping to pollinate the plant.

Fruits are **pods** (legumes), seed containers in two halves (valves) with the seeds attached internally along one side. When ripe, the pod dries and then splits along one side, releasing the seeds.

Pea-type flower structure:



Aotus subglauc [Fabaceae]

- Low compact shrub
- Yellow and red-brown pea-type flowers
- Small hairy pods



Aotus subglauc var. *subglauc* : Whole plant in habitat



Aotus subglauca var. *subglauca* : Flowering and fruiting branches



Aotus subglauca var. *subglauca* : Flowering and fruiting branches



Aotus subglauca var. *subglauca* : Flowers



Aotus subglauca var. *subglauca* : Fruit (seed pods)

***Daviesia genistifolia* (broom bitter pea) [Fabaceae]**

- Low prickly shrub
- Round sharp-pointed phyllodes (“leaves”)
- Flowers yellow & red-brown pea-type; August-October
- Pods flat, D-shaped



Daviesia genistifolia (broom bitter pea) : Flowering branch; photographed by Trisha Stadtmiller

***Hovea apiculata* [Fabaceae]**

- Upright grey shrub
- Purple pea-type flowers in axillary clusters of 3, yellow-green 'eye'-spots on standard petal,; late July/August-September
- Leaves narrow oblong, hairless glossy green-dull grey above, dense grey-tan hairs beneath



Hovea apiculata : Mature plants in habitat



Hovea apiculata : Flowers and leaves, upper and lower surfaces



Hovea apiculata : Flowers and leaves, upper and lower surfaces



Hovea apiculata : Flowering twig; upper and lower leaf surfaces



Hovea apiculata : Flowers

***Hovea heterophylla* [Fabaceae]**

- Low ground-hugging spreading shrub
- Leaves in 2 forms: lower leaves circular to elliptical, upper leaves elongated; hook on leaf end
- Flowers mauve, yellow-green 'eye'-spots on standard petal, 1-3 in leaf-stem junctions; late July/August-October



Hovea heterophylla : Flowering twig



Hovea heterophylla : Flowering twig

***Indigofera adesmiifolia* (tick indigo) [Fabaceae]**

- Upright dark green shrub
- Compound leaves - flattened striped midrib, tiny leaflets
- Pink pea-type flowers



Indigofera adesmiifolia (tick indigo) : Mature flowering plant in habitat



Indigofera adesmiifolia (tick indigo) : Flowering and fruiting branches



Indigofera adesmiifolia (tick indigo) : Flowers and young seed pods

***Jacksonia scoparia* (dogwood, broom bush) [Fabaceae]**

- Tall upright shrub to small tree
- Leafless branches
- Golden yellow pea-type flowers; Spring-Summer



Jacksonia scoparia (dogwood) : Flowering plant in habitat; photographed near Narrabri October 2014



Jacksonia scoparia (dogwood) : Flowering branches; photographed near Narrabri October 2014



Jacksonia scoparia (dogwood) : Flowers; photographed near Narrabri October 2014

***Mirbelia speciosa* subsp. *speciosa* [Fabaceae]**

- Upright low spreading shrub
- Purple pea-type flowers, yellow 'eye'-spots on standard petal; June-September



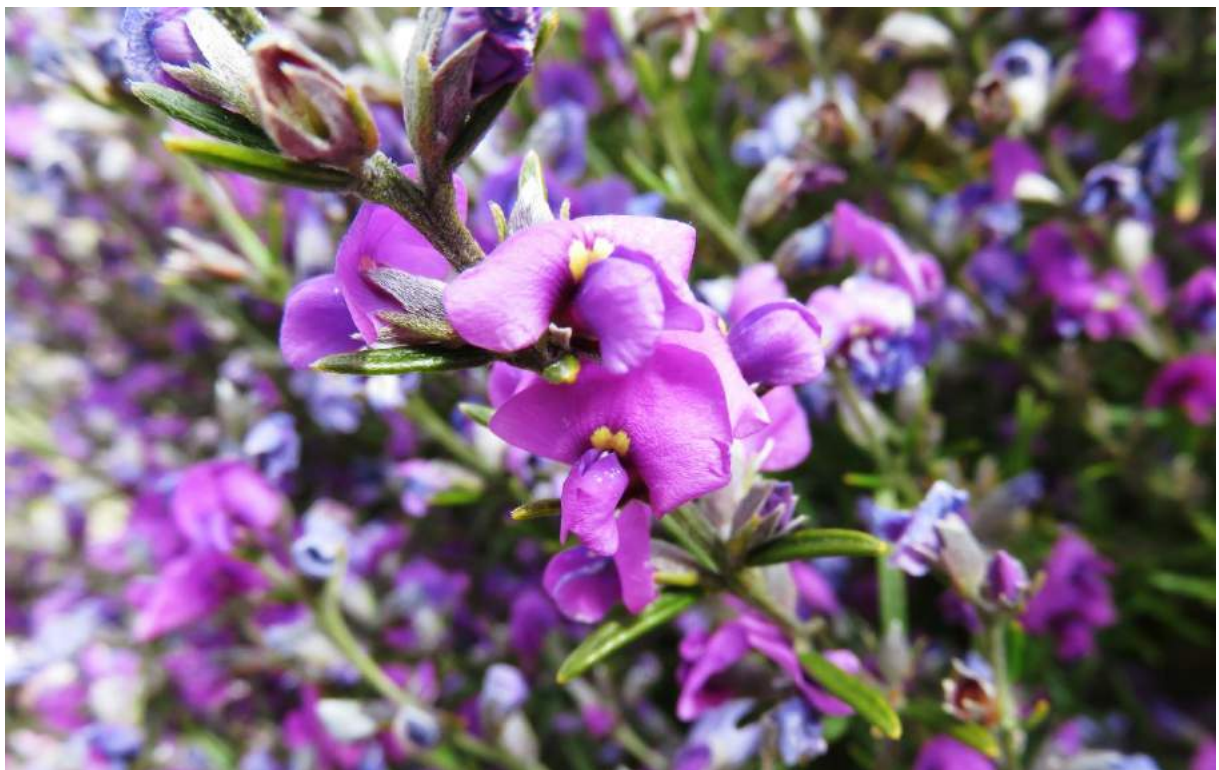
Mirbelia speciosa subsp. *speciosa* : Plant in habitat



Mirbelia speciosa subsp. *speciosa* : Flower



Mirbelia speciosa subsp. *speciosa* : Cultivated plant at *Grasstrees*



Mirbelia speciosa subsp. *speciosa* : Cultivated plant at *Grasstrees*



Mirbelia speciosa subsp. *speciosa* : Flowering twigs; Cultivated plant at *Grasstrees*



Mirbelia speciosa subsp. *speciosa* : Spent fruit (open seed pods) on plant in habitat

Tea-trees

Kunzea obovata [Myrtaceae]

- Upright bushy shrub
- Pink flowers; Spring



Kunzea obovata : Mature flowering plant in habitat



Kunzea obovata : Flowering branch



Kunzea obovata : Flowering branch



Kunzea obovata : Flowers

***Leptospermum brevipes* (slender tea-tree) [Myrtaceae]**

- Upright shrub with drooping branches
- Grey foliage
- White flowers tinged with pink



Leptospermum brevipes (slender tea-tree): Mature flowering plant in habitat



Leptospermum brevipes (slender tea-tree): Flowering branch in habitat



Leptospermum brevipes (slender tea-tree): Flowering twig in habitat



Leptospermum brevipes (slender tea-tree): Flowering twig



Leptospermum brevipes (slender tea-tree): Flowers

Native blackthorn

***Bursaria spinosa* (native blackthorn) [Pittosporaceae]**

- Upright shrub to small tree
- Spiny stems
- White flowers; summer
- Heart-shaped brown seed capsules



Bursaria spinosa (native blackthorn): Mature flowering plant in habitat



Bursaria spinosa (native blackthorn): Mature flowering plant in habitat



Bursaria spinosa (native blackthorn): Mature flowering plant in habitat



Bursaria spinosa (native blackthorn): Flowers



Bursaria spinosa (native blackthorn): Fruiting branch



Bursaria spinosa (native blackthorn): Fruit



Bursaria spinosa (native blackthorn): Fruiting branch

Pomaderris

Pomaderris lanigera [Rhamnaceae]

- Upright bushy shrub
- Oval pleated leaves, felty undersides
- Hairy-felty stems
- Flowers; September



Pomaderris lanigera: Mature plants in habitat



Pomaderris lanigera: Twig with flower buds



Pomaderris lanigera: Flowering twig



Pomaderris lanigera: Flower heads



Pomaderris lanigera: Flowers

Correas & Zierias

Family Rutaceae members characteristically have 4-petalled flowers. This family includes the exotic (and native) citrus plants.

***Correa reflexa* var. *reflexa* (common correa, native fuchsia) [Rutaceae]**

- Low shrub 0.5-1.5 m tall
- Stems rusty
- Leaves oval, turned-under margins, rough upper surface, felty undersurface
- Flowers green-yellow tubular drooping, clasped between 2 leaf-like bracts



Correa reflexa var. *reflexa* (common correa): Flowering branch; photographed by Trisha Stadtmiller July 2016

***Zieria cytisoides* (downy zieria) [Rutaceae]**

- Upright compact grey-green shrub
- Furry grey-green rounded leaves with 3 lobes
- Pale pink flowers, 4 petals; winter-spring



Zieria cytisoides (downy zieria): Flowering shrub in habitat



Zieria cytisoides (downy zieria): Flowering shrub in habitat



Zieria cytisoides (downy zieria): Flowering branches



Zieria cytisoides (downy zieria): Flowers in habitat



Zieria cytisoides (downy zieria): Flowering twigs



Zieria cytisoides (downy zieria): Flowers



Zieria cytisoides (downy zieria): Leaves

***Zieria smithii* (sandfly zieria) [Rutaceae]**

- Upright shrub
- Smooth elongated pointed leaves with 3 lobes
- White flowers, 4 petals; spring, autumn



Zieria smithii (sandfly zieria): Flowering shrub in habitat



Zieria smithii (sandfly zieria): Flowering branch in habitat

Nightshades

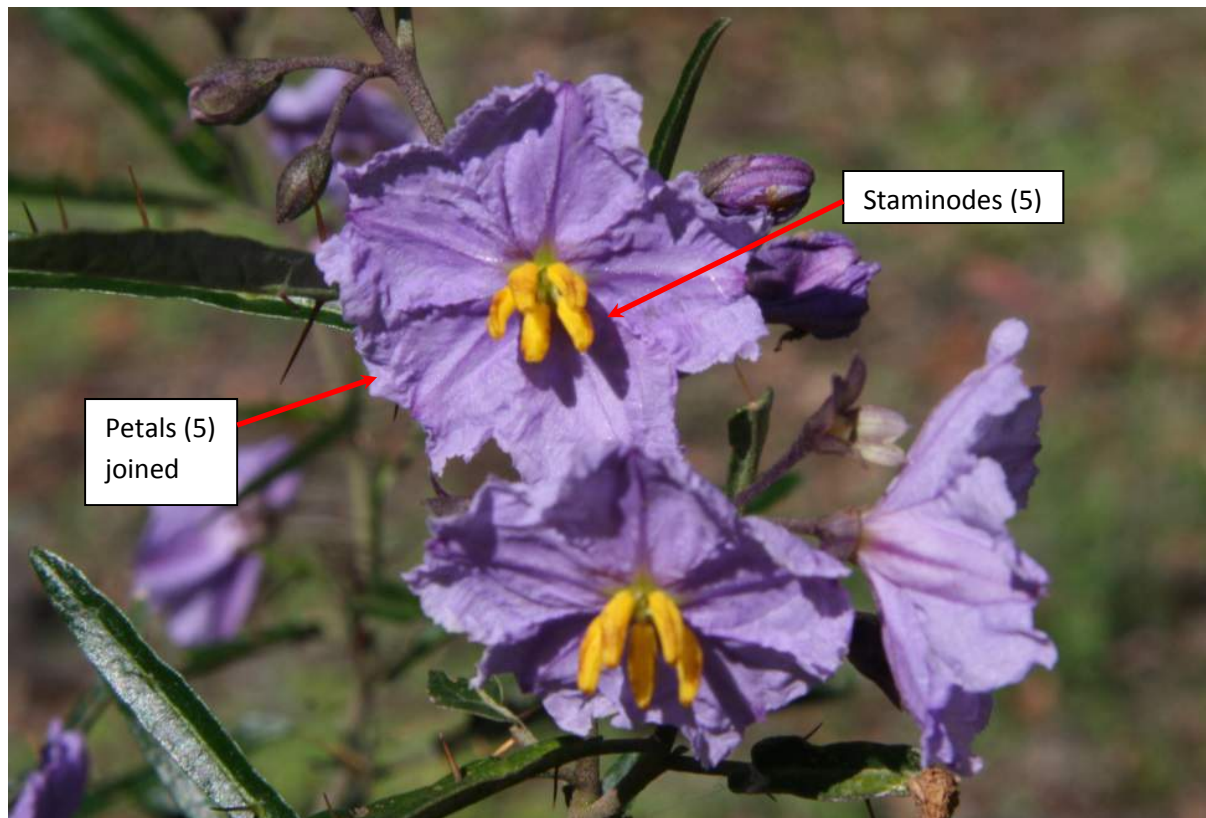
The Family Solanaceae is large with around 90 species in Australia, both native and exotic. It contains the exotic crop plants potatoes and tomatoes.

Flowers are star-shaped or cup-shaped with 5 petals free or joined that are usually purple and sometimes white. They have a rosette of upright bright yellow staminodes (pollen-containing structures) in their centres.

Fruits are fleshy berries that ripen to black, red, orange or yellow. ☠️ Unripe fruit contain chemical compounds irritant to the mammalian stomach and intestines. **Unripe fruit should not be eaten or severe diarrhoea and vomiting may result.**

Stems, leaves or both often carry prickles.

Solanum flower structure:



***Solanum amblymerum* [Solanaceae]**

- Upright open shrub
- Leaves long, narrow with long prickles above and below
- Flowers purple petals, yellow staminodes
- Berries yellow when ripe
- Prickly stems



Solanum amblymerum: Flowering & fruiting shrub in habitat



Solanum amblymerum: Flowering shrub in habitat



Solanum amblymerum: Flowering branch



Solanum amblymerum. Flowers



Solanum amblymerum. Unripe fruit

****Solanum pseudocapsicum* (Madera winter cherry)[Solanaceae]**

- Exotic species (denoted by the prefix *), weedy
- Shrub 30 cm tall x 50 cm across
- No prickles
- Leaves simple oval shaped
- Flowers: White petals, yellow stamens
- Orange ripe berries



Solanum pseudocapsicum (Madera winter cherry): Fruiting shrub in habitat



Solanum pseudocapsicum (Madera winter cherry): Fruiting branch



Solanum pseudocapsicum (Madera winter cherry): Fruit (ripe)

Rice flowers

Rice flowers are in Family Thymeleaceae, the daphne family.



These plants contain chemical compounds irritant to the mammalian stomach and intestines.

No part of them should be eaten or severe diarrhoea and vomiting will result.

***Pimelea curviflora* var. *divergens* (a rice flower)[Thymeleaceae]**

- Small bushy shrub
- Opposite leaves, slightly hairy
- Yellow tubular flowers



Pimelea curviflora var. *divergens* (a rice flower): Flowering branches



Pimelea curviflora var. *divergens* (a rice flower): Flowering branches

***Pimelea linifolia* (a rice flower)[Thymeleaceae]**

- Small upright shrub
- Opposite leaves
- White flowers in terminal clusters



Pimelea linifolia (a rice flower): Flowering branches

***Pimelea neoanglica* (New England rice flower)[Thymeleaceae]**

- Tall upright shrub
- Brown stems
- Separate sexes – male and female flowers on different plants
- Female flowers flask-like
- Male flowers yellow
- Yellow berries



Pimelea neoanglica (New England rice flower): Flowering branches (male)



Pimelea neoanglica (New England rice flower): Flowers (female)



Pimelea neoanglica (New England rice flower): Flowers (male)



Pimelea neoanglica (New England rice flower): Fruit

***Pimelea venosa* (Bolivia Hill rice flower)[Thymeleaceae]**

- Upright spreading shrub
- Silky-hairy leaves and stems
- White tubular flowers, 4 lobes at the top of the corolla tube, 2 stamens; August-September



Pimelea venosa (Bolivia Hill rice flower): Non-flowering shrub in habitat



Pimelea venosa (Bolivia Hill rice flower): Leafy branches; Non-flowering shrub in habitat



Pimelea venosa (Bolivia Hill rice flower): Leaves



Pimelea venosa (Bolivia Hill rice flower): Flowering twig in habitat



Pimelea venosa (Bolivia Hill rice flower): Flowers



Pimelea venosa (Bolivia Hill rice flower): Flowering twig in habitat