

Floral Emblems of Australia Education Kit

celebrating the
Centenary of Federation



Australian National Botanic Gardens

Australian National Botanic Gardens

Growing, studying and promoting Australian plants

GPO Box 1777

Canberra ACT 2601

Telephone (Education Centre) (02) 6250 9547

Facsimile (Education Centre) 02) 6250 9477

Web Site <http://www.anbg.gov.au/education/floral-emblem-ed>

Email to education@anbg.gov.au



To The Principal and the Environment Coordinator

Dear Sir/Madam,

FLORAL EMBLEMS of AUSTRALIA EDUCATION KIT
A Centenary of Federation contribution from the
Australian National Botanic Gardens

Your national botanic gardens has great pleasure in offering you a wide range of free resources as we celebrate the Centenary of Federation. The poster **FLORAL EMBLEMS OF AUSTRALIA** provides a fabulous representation of these national icons. Further (limited) copies of the poster can be obtained by contacting our Education Centre.

The Education Kit introduces you to our national, state and territory floral emblems and their different habitats. These plants are a tangible point of contact with the people, places and politics of our nation's history.

Please copy and use this publication for any not-for-profit educational activity. This is your starter kit. There is a lot more information, useful tools and student activity ideas on our web site. If you do not have access to the Internet, contact our Education Centre and we can send you a printed copy.

We have also thrown in a challenge or two:

- Investigate your local patch of bushland and decide on a floral emblem for your school, town or district. Send us your findings. Your entry could end up on the Australian National Botanic Gardens web site.
- Send us your pieces of writing, drawings or fun/scientific/kitch constructions and we might put them in our Exhibition in Canberra.

Good luck in taking up these challenges in this Centenary of Federation year.

Yours sincerely,

Handwritten signature of Robin Nielsen

Robin Nielsen
Director

Dear Teachers

It is our aim to provide resources for your class's learning experience. This kit can be:

1. used as a **stand-alone kit** for a whole Federation program on Floral Emblems; it is written for the middle school years but can be modified for all levels of learning
2. adapted to **use with other resources relating to Federation** by cutting and pasting from our web site or printed copy
3. easily developed into **thematic programs linked to the Key Learning Areas** of the Australian Curriculum Frameworks
4. enhanced even more by a **visit to the Australian National Botanic Gardens**. Next time you get the opportunity, come and meet some of the more than 7,000 different Australians living on Black Mountain. A similar experience may be obtained by visiting State or Territory Botanic Gardens and some regional botanic gardens that have a native Australian section
5. extended by finding people in your community with local plant knowledge.

This is a starter kit. There's a lot more on our web site waiting for you to download in Word and PDF formats and make copies for your class. Check out

www.anbg.gov.au/education/floral-emblem-ed.

- Getting started – use the poster and its habitat depictions as the basis for understanding that Australia has many different landscapes, each with its own set of environmental conditions.
- Tools for investigating your local patch of bushland – what plant parts to collect and how to treat them so that someone can identify the species later, hints on making vouchers for a larger number of plants, what is a weed?
- Extension and related activity ideas.
- Promoting your class/school.
- How to get your pieces of writing, drawing or artwork into the ANBG Exhibition which will run until November 2001.

Curriculum Links

Your participation will address some or all of the following Across Curriculum Perspectives:

- Environmental education
- Australian education
- Information access
- Language for understanding

Your participation will address the following outcomes:

- understandings about our environment: Students learn to identify the elements of natural systems and the factors that shape our environment as well as our natural resources and how they are used; and develop an understanding of different cultural views and values of the natural environment.
- positive attitudes towards the earth and living things: Students appreciate environmental heritage, environmental stewardship, balanced development and conservation.
- confidence and skills to change behaviour: Students recognise the intrinsic value of the natural environment, identify issues relating to the care of natural places and act for sustainability and biodiversity.

For further information kits and posters, please email education@anbg.gov.au

Native Floral Emblem of your local area

Find a *native* plant in your area that you think is really special.

Common Name What do most people call this plant in your area? Are there any other names for it?

Botanical Name What special name do plant scientists have for this plant?



What the plant scientists say ...

Where does it grow naturally?

You may like to simply describe the plant yourself then find out what others have to say about it in botanical books. Where does it grow? Does it grow with other plants or alone?

Where does it grow naturally? Draw your own map or use someone else's to show where it occurs naturally. You could even make a detailed plan of your neighbourhood to show where each of these plants is growing.

Size This will vary depending on the plant's age and the environmental conditions. Choose measurements that are typical for the plant in its natural habitat.

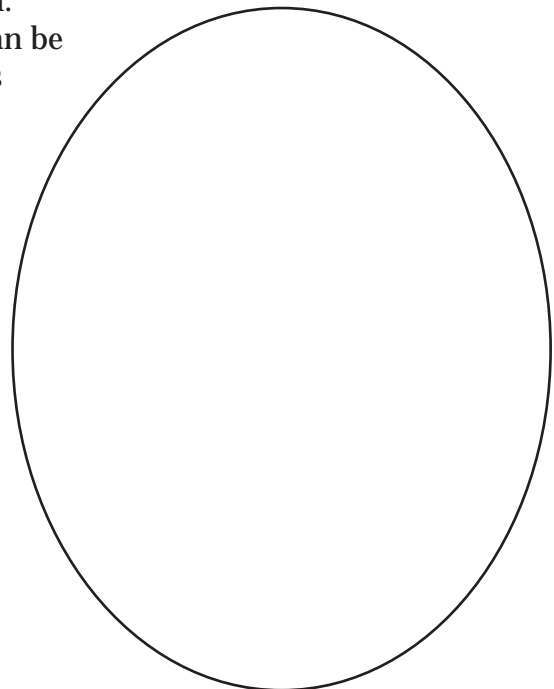
Leaves What colour(s), shape and texture are they? Is the top surface the same as the bottom? Use a magnifying glass to look more closely. Measure the mature leaf size. Draw some to show the detail.

Flowers, fruit and seeds Describing flowers can be challenging because sometimes they change as they develop. Does the fruit or seed have any special or unusual features? Draw some flowers, buds, fruit and seeds (if you have them). Look up what the botanists have to say just in case you missed something.

Brief History

Record why (the reasons) and how (the process) you decided on your local emblem. Some details about why you chose this plant and not others may be helpful. You could write a story for your local paper or a press release to tell people about your emblem.

Now go to www.anbg.gov.au/education/floral-emblem-ed to download the Toolbox.



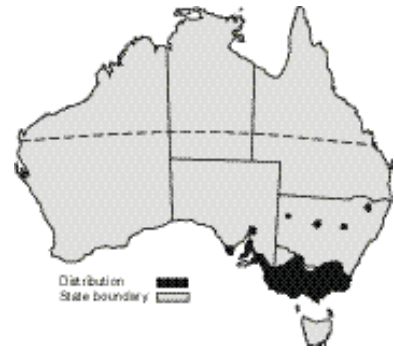
Your Floral Emblem

National Floral Emblem of Australia

Common Name: Golden Wattle

Botanical Name: *Acacia pycnantha*

Family: Mimosaceae



What the plant scientists say ...

Where does it grow naturally? Golden Wattle occurs naturally as a smaller tree below the taller trees in open forest and sometimes in the open by itself. These are places where it is not very hot and where rainfall of 350 mm to 1000 mm occurs most years. Look at the map to see the places where it grows naturally.

Size *Acacia pycnantha* is a shrub or small tree about 4 to 8 metres tall.

Leaves After the seedling stage, the feathery true leaves fall off. Flattened leaf stalks grow and take over the job of the leaves. They are leathery, 6 to 20 cm long, shaped like thick curving knives and are bright green in colour.

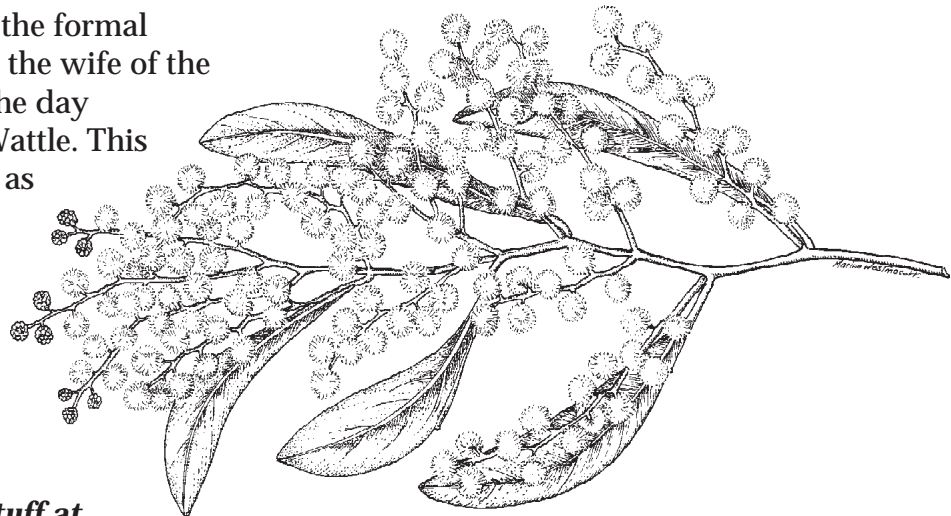
Flowers, fruit and seeds In spring large fluffy golden yellow flower heads with up to seventy very small, sweetly scented flowers in each head provide a vivid contrast with the green leaves. The dark brown mature fruit pods 7 to 12 cm long, split along one side to release hard brown seeds.

Brief History

Golden Wattle has been the popular national flower in Australia for over 100 years and it has been part of Australia's coat of arms since 1912. It was not officially made the national floral emblem until 1988, the 200th anniversary of European settlement in Australia.

On 1 September 1988, at the Australian National Botanic Gardens, the Commonwealth

Government made the formal announcement and the wife of the Prime Minister of the day planted a Golden Wattle. This date is now known as National Wattle Day.



More fascinating stuff at

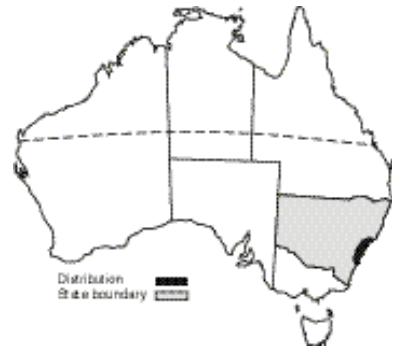
www.anbg.gov.au/education/floral-emblem-ed

Floral Emblem of New South Wales

Common Name: Waratah

Botanical Name: *Telopea speciosissima*

Family: Proteaceae



What the plant scientists say ...

Where does it grow naturally? The Waratah is widespread on the central coast and adjoining mountains of New South Wales. Look at the map to see where it grows naturally.

Size The Waratah is a sturdy, upright shrub which may grow to 4 metres tall.

Leaves The dark green leathery leaves, 13 to 25 cm in length, are arranged alternately and have coarsely toothed edges.

Flowers, fruit and seeds The red flowers are grouped in rounded heads 7 to 10 cm in diameter. Flowers appear from September to November and nectar-seeking birds act as pollinators. Large winged seeds are released when the brown leathery pods split along one side.

Brief History

Waratah, the Aboriginal name for the species, was adopted by early settlers in the Sydney area. *Telopea speciosissima* was proclaimed the official floral emblem of New South Wales on 24 October 1962.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed

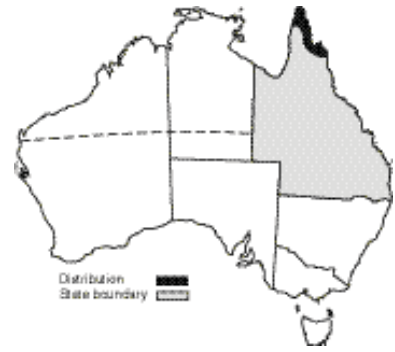


Floral Emblem of Queensland

Common Name: Cooktown Orchid

Botanical Name: *Dendrobium phalaenopsis*

Family: Orchidaceae



What the plant scientists say ...

Where does it grow naturally? It occurs naturally in northern Queensland. Although it is found in tropical districts with very high summer rainfall, it is not a rainforest species but grows in exposed situations, usually attached to tree trunks. Look at the map to see where it grows naturally.

Size Plants are up to 80 cm in height. The 3 to 20 flowering canes are up to 1.5 cm in diameter.

Leaves Three to six lance-shaped leaves, 5 to 12 cm long, are arranged on the upper parts of the swollen base.

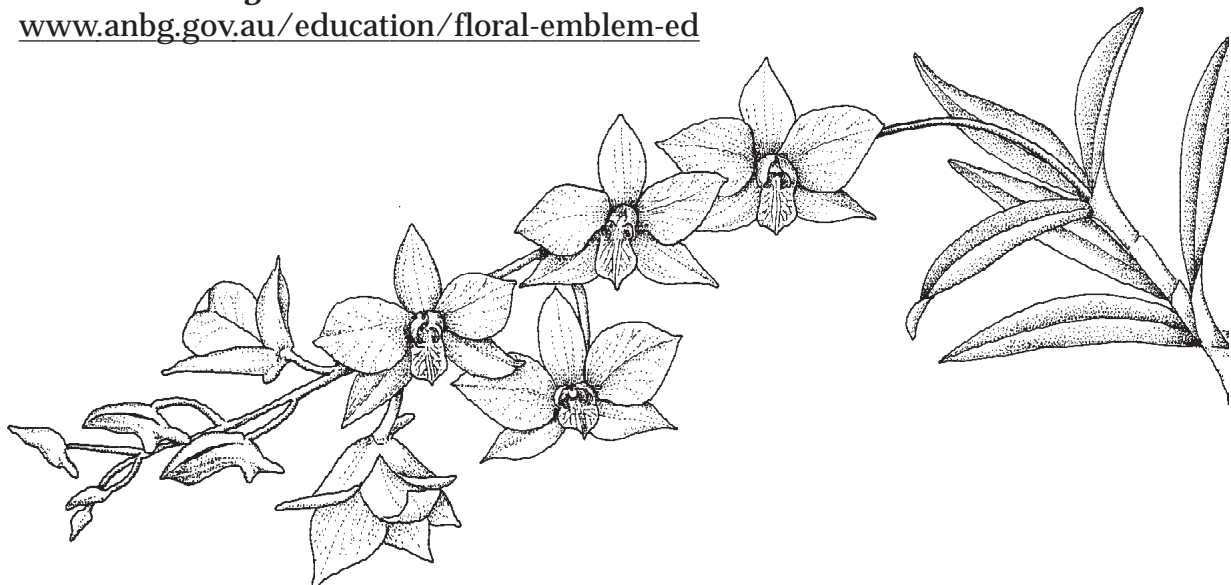
Flowers, fruit and seeds The stems bearing the flowers are 10 to 40 cm long, carrying up to 20 flowers. Each flower is about 3 to 6 cm wide and usually coloured deep to pale lilac, or rarely white. It usually flowers in the dry season in the wild. The bulbs can be divided to make new plants or you can grow it from seed.

Brief History

When Queensland prepared for its Centenary in 1959, the state government sought advice on native species suitable as a floral emblem. On 19 November 1959 the Cooktown Orchid, under the botanical name of *Dendrobium bigibbum* var. *phalaenopsis*, was proclaimed as the floral emblem.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed



Floral Emblem of Victoria

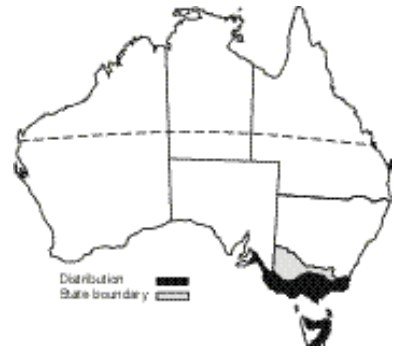
Common Name: Common Heath

Botanical Name: *Epacris impressa*

Family: Epacridaceae

What the plant scientists say ...

Where does it grow naturally? Common Heath occurs across a wide area of Victoria, New South Wales, South Australia and Tasmania, including coastal heathlands. Look at the map to see the places where it grows naturally.



Size Common Heath is a slender, upright shrub which grows to about a metre in height.

Leaves The rigid, alternate leaves are fairly narrow and do not have leaf stalks. They range from 4 to 16 mm in length and are sharply pointed.

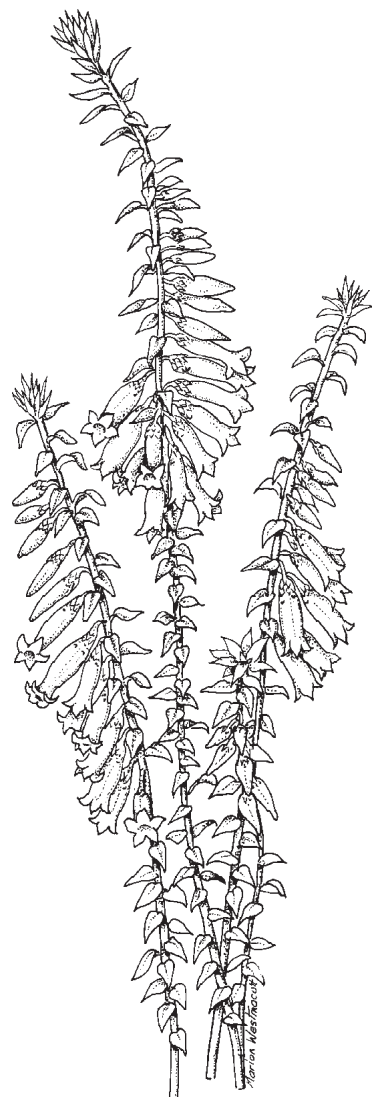
Flowers, fruit and seeds The tubular flowers up to 25 mm long are each attached near the base of a leaf. They are often so densely packed around the stem that the cluster of flowers looks like a brush. Flowering occurs from late autumn to late spring, reaching a peak in winter. The fruit is a capsule which splits to release minute seeds. Common Heath has many colour forms but the pink form is the one chosen and proclaimed as Victoria's floral emblem.

Brief History

The pink form of Common Heath, *Epacris impressa*, was proclaimed the floral emblem of Victoria on 11 November 1958.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed

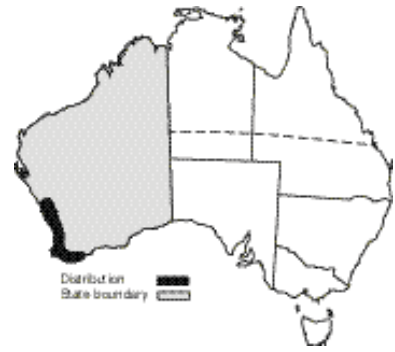


Floral Emblem of Western Australia

Common Name: Red and Green Kangaroo Paw

Botanical Name: *Anigozanthos manglesii*

Family: Haemodoraceae



What the plant scientists say ...

Where does grow it naturally? It occurs naturally in heath on sandy soil in the hilly region behind Perth. Look at the map to see the places where it grows naturally.

Size Red and Green Kangaroo Paw is a low plant growing from an underground stem. The flowering stems may grow to about a metre.

Leaves Broad leaves are about 30 to 60 cm long and taper to a sharp point.

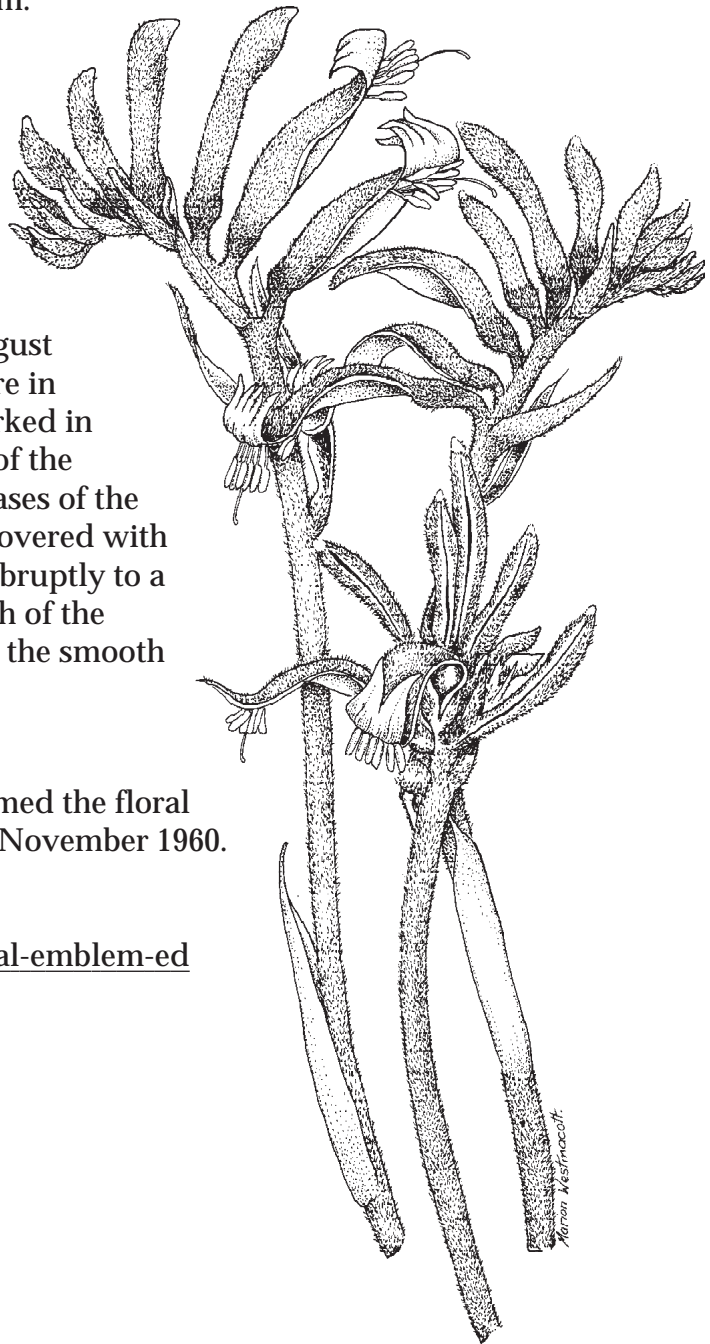
Flowers, fruit and seeds The flowers are produced between August and October on stems about a metre in height. The flower stem is often forked in specimens from the northern part of the species' range. The stem and the bases of the flowers are usually deep red and covered with woolly hairs. The colour changes abruptly to a brilliant green for the greater length of the flower which splits open revealing the smooth pale green interior.

Brief History

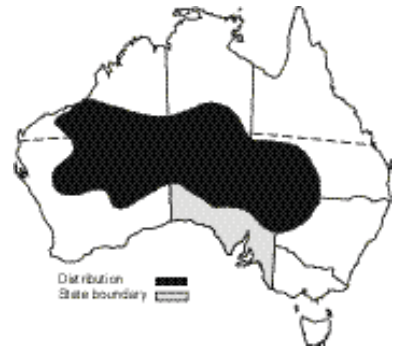
Anigozanthos manglesii was proclaimed the floral emblem of Western Australia on 9 November 1960.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed



Floral Emblem of South Australia
Common Name: Sturt's Desert Pea
Botanic Name: *Swainsona formosa*
Family: Fabaceae



What the plant scientists say ...

Where does it grow naturally? It occurs in all mainland States except Victoria. It is naturally found in arid woodlands and on open plains. Look at the map to see where it grows naturally.

Size 30 cm tall May sprawl out over several square metres.

Leaves The silky grey-green pinnate leaves spring from prostrate stems. The leaves and stems are covered with downy hairs.

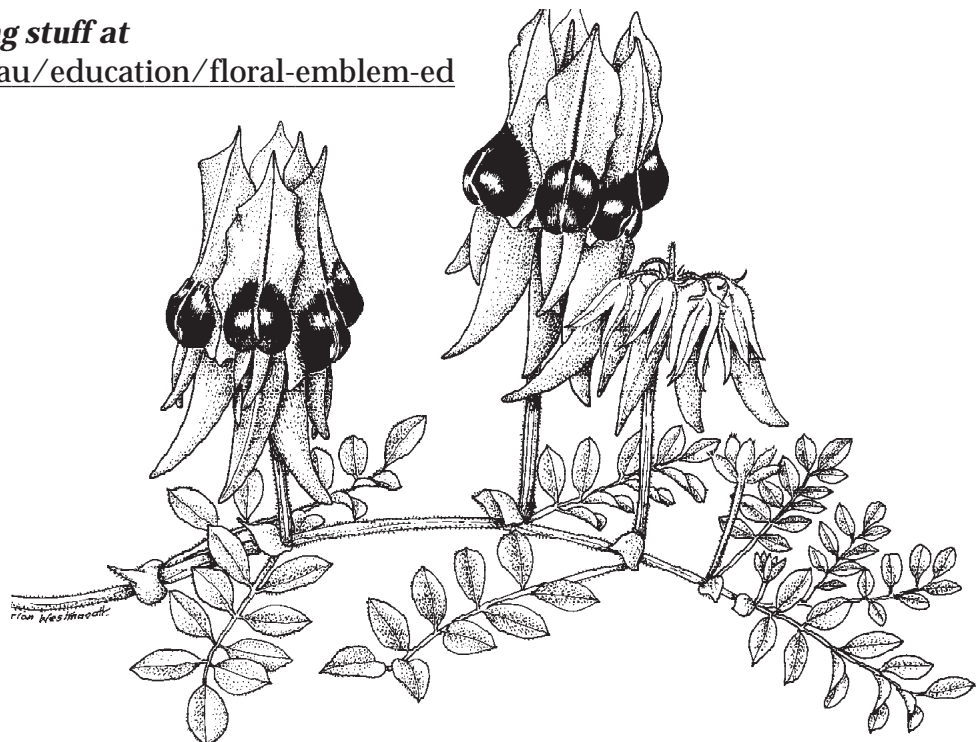
Flowers, fruit and seeds The flowers are about 9 cm long and arranged in clusters of six to eight. The petals are usually blood red or scarlet with a glossy black swelling or boss at the base of the uppermost petal. The fruit is a legume about 5 cm long which splits at maturity releasing several flat, kidney-shaped seeds.

Brief History

Swainsona formosa was adopted as the floral emblem of South Australia on 23 November 1961, using the name *Clianthus formosus*. The common name commemorates the notable explorer of inland Australia, Captain Charles Sturt (1795–1869).

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed



Floral Emblem of Tasmania

Common Name: Tasmanian Blue Gum

Botanical Name: *Eucalyptus globulus*

Family: Myrtaceae



What the plant scientists say ...

Where does it grow naturally? The Tasmanian Blue Gum occurs in tall open forest in south-eastern Tasmania. It also occurs on King and Flinders Islands in Bass Strait. Outside Tasmania it is confined to small sections of southern Victoria. Look at the map to see where it grows naturally.

Size Tasmanian Blue Gum is a tall, straight tree growing to 70 metres in height and 2 metres in trunk diameter under favourable conditions.

Leaves The broad juvenile leaves are about 6 to 15 cm long and covered with a blue-grey, waxy bloom. This is the origin of the common name 'blue gum'. The mature leaves are narrow, sickle-shaped and dark shining green. They are arranged alternately on rounded stems and range from 15 to 35 cm in length.

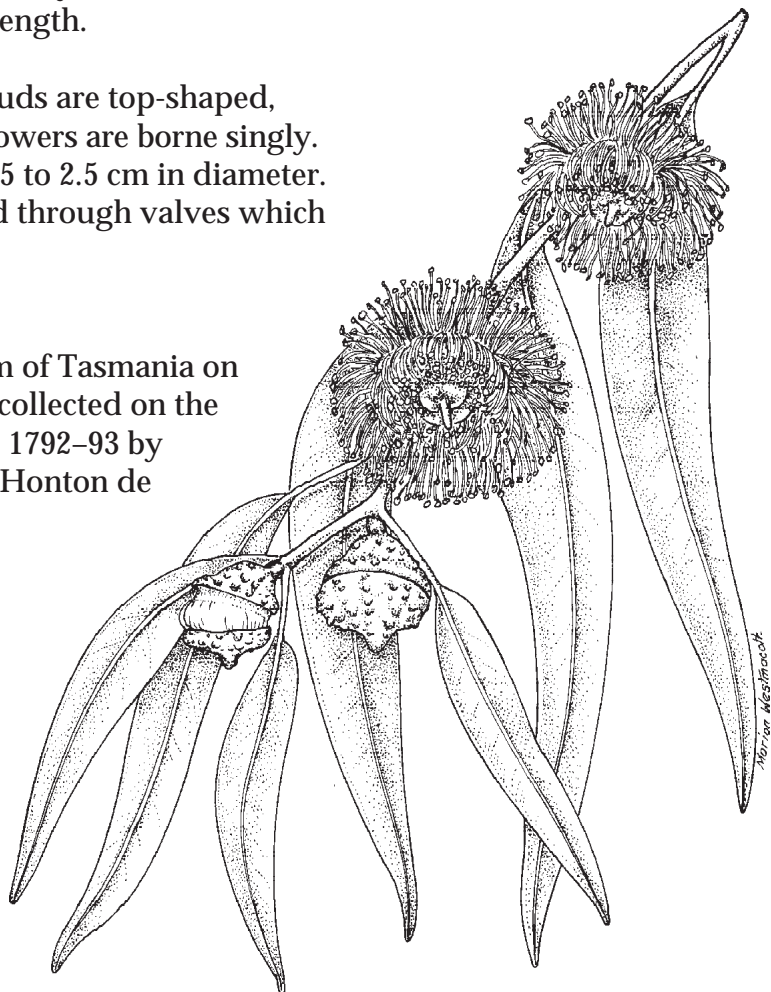
Flowers, fruit and seeds The buds are top-shaped, ribbed and warty. The cream flowers are borne singly. The woody fruits range from 1.5 to 2.5 cm in diameter. Numerous small seeds are shed through valves which open on the top of the fruit.

Brief History

Proclaimed as the floral emblem of Tasmania on 27 November 1962. It was first collected on the south-east coast of Tasmania in 1792–93 by French explorer Jacques-Julien Houton de Labillardiere.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed

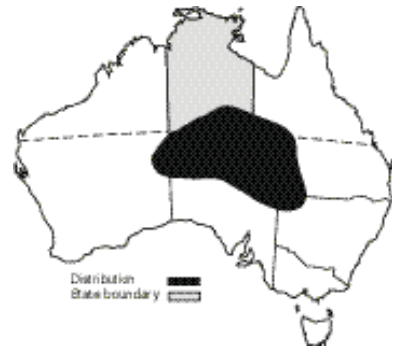


Floral Emblem of the Northern Territory

Common Name: Sturt's Desert Rose

Botanical Name: *Gossypium sturtianum*

Family: Malvaceae



What the plant scientists say ...

Where does it grow naturally? Sturt's Desert Rose occurs naturally on stony or rocky slopes or in dry creek beds in several regions across central Australia. Look at the map to see where it grows naturally.

Size In its natural habitat, Sturt's Desert Rose forms a relatively compact shrub about a metre in height. Flowering is not strictly seasonal but reaches a peak in late winter. The fruit, a capsule, is about 1 cm long and contains many small seeds covered with short silky hairs.

Leaves The leaves are dark green, usually with black stipples, entire, round to oval in shape and about 5 cm long.

Flowers, fruit and seeds The mauve petals are about 5 cm long with red bases forming a contrasting centre in each flower. Propagation is possible from seeds and cuttings.

Brief History

On 12 July 1961, Sturt's Desert Rose was proclaimed the floral emblem of the Northern Territory by the Commonwealth Government, which was then responsible for the administration of the Territory.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed



Floral Emblem of the Australian Capital Territory

Common Name: Royal Bluebell

Botanical Name: *Wahlenbergia gloriosa*

Family: Campanulaceae



What the plant scientists say ...

Where does it grow naturally? Royal Bluebell occurs mainly in subalpine woodland in the mountains of the Australian Capital Territory, south-eastern New South Wales and Victoria. Look at the map to see where it grows naturally.

Size *Wahlenbergia gloriosa* is a small herb that grows all year round. Plants may be around 30 cm across.

Leaves Oblong, about 2.5 cm long, with wavy edges.

Flowers, fruit and seeds The violet blue flowers are up to 2 to 3 cm in diameter and often appear to have a paler centre due to the light blue base of the petals combined with the purple style which usually ends in two white stigmas. The flowers may be erect or nodding and are carried on long slender stems. Flowering extends from October to March. New plants can be grown from seeds, cuttings or root divisions.

Brief History

The Royal Bluebell was announced as the floral emblem of the Australian Capital Territory on 26 May 1982 by the Federal Minister for the Capital Territory.

More fascinating stuff at

www.anbg.gov.au/education/floral-emblem-ed

