

MEMO

SUBJECT: Targeted Survey: <i>Calectasia cyanea</i> (Blue Tinsel Lily)	TO: Cherry Martin
PROJECT NAME: Goode Beach Holiday Accommodation	PROJECT CODE: CHE2016-002
RECORDED BY: Melanie Price	DATE: 14 April 2023

Telephone Notes

Minutes of Meeting

File Note

Field Record

Calectasia cyanea (Blue Tinsel Lily) is a Threatened flora species, which is listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) and *Biodiversity Conservation Act 2016* (WA). The species is known from Torndirrup National Park and Frenchman Bay Nature Reserve as well as the west coast of Western Australia and the eastern states. Information about the species is included in Attachments 1, 2 and 3).

Melanie Price of Aurora Environmental undertook a targeted survey for *Calectasia cyanea* in the 2.3 ha area proposed to be cleared for Holiday accommodation, and the residual portion of Lot 660 La Perouse Court, Goode Beach (Figure 1). The survey was undertaken on 20 October 2017 for three hours. The flowering period of the species is between June to October.

The species was not detected in the area surveyed including the 2.3 ha area of *Agonis flexuosa*/*Adenanthos sericeus* Closed Scrub area where clearing is proposed.

FIGURE 1: AREA PROPOSED TO BE CLEARED AND AREA SURVEYED FOR CALECTASIA CYANEA



ATTACHMENT 1

CALECTASIA CYANEA - FLORABASE (2023)

Plants → Magnoliophyta → Liliopsida → Dasypogonales
 → [Dasypogonaceae Dumort. \(/browse/profile/22768\)](#)
 → [Calectasia R.Br. \(/browse/profile/21184\)](#) → *Calectasia cyanea* R.Br.

Calectasia cyanea R.Br.

Blue Tinsel Lily

Reference

Prodr. 263-264 (1810)

Conservation Code

[Threatened \(/help/conservation-codes\)](#)

A taxon name retains its 'Threatened' status until a new name has been officially endorsed and appears in the Gazettal Notice.

Naturalised Status

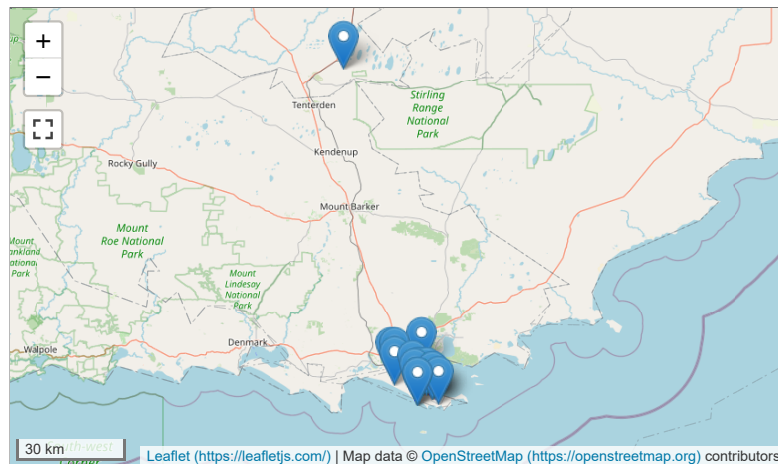
Native to Western Australia

Name Status

[Current \(/search/current/1213\)](#)

Rhizomatous, clump forming, woody perennial, herb, 0.1-0.6 m high, to 0.3 m wide. Fl. blue/purple, Jun to Oct. White, grey or yellow sand, gravel.

Grazyna Paczkowska, Descriptive Catalogue, 11 July 1994



Calectasia cyanea

Photos: C. Hortin

Distribution

IBRA Regions

Avon Wheatbelt, Jarrah Forest, Warren.

IBRA Subregions

Katanning, Southern Jarrah Forest, Warren.

IMCRA Regions

WA South Coast.

Local Government Areas (LGAs)

Albany, Cranbrook.

Florabase is produced by the staff of the **Western Australian Herbarium** (<https://www.dpaw.wa.gov.au/plants-and-animals/wa-herbarium>), Biodiversity and Conservation Science, Department of Biodiversity, Conservation and Attractions. Publication or other use of content on this site is unauthorised unless that use conforms with the **copyright statement** (</help/copyright>).

Western Australian Herbarium (1998–). Florabase—the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (<https://florabase.dpaw.wa.gov.au/>) (Accessed 14 April 2023).

ATTACHMENT 2

CALECTASIA CYANEA – SPRAT (2023)

Species Profile and Threats Database

You are here: [Home](#) » [Biodiversity](#) » [Threatened species & ecological communities](#) » [SPRAT](#)

Calectasia cyanea — Blue Tinsel Lily

[Glossary](#)

SPRAT Profile

For information to assist regulatory considerations, refer to [Policy Statements and Guidelines](#), the [Conservation Advice](#), the [Listing Advice](#) and/or the [Recovery Plan](#).

[Top](#)

EPBC Legal Status and Documents

EPBC Act Listing Status	Listed as Critically Endangered as <i>Calectasia cyanea</i> (Date effective 18-Aug-2006)
Approved Conservation Advice	Department of the Environment, Water, Heritage and the Arts (2008). <i>Approved Conservation Advice for Calectasia cyanea (Blue Tinsel Lily)</i> . Canberra: Department of the Environment, Water, Heritage and the Arts. Available from: http://www.environment.gov.au/biodiversity/threatened/species/pubs/7669-conservation-advice.pdf . In effect under the EPBC Act from 03-Jul-2008.
Listing Advice	Threatened Species Scientific Committee (2006). <i>Commonwealth Listing Advice on Calectasia cyanea</i> . Available from: http://www.environment.gov.au/biodiversity/threatened/species/calectasia-cyanea.html . In effect under the EPBC Act from 19-Aug-2006.
Recovery Plan Decision	Recovery Plan required, included on the Commenced List (1/11/2009).
Adopted/Made Recovery Plans	Department of Environment and Conservation (2009). <i>Blue Tinsel Lily (Calectasia cyanea) Recovery Plan</i> . Department of Environment and Conservation, Western Australia. Available from: http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-blue-tinsel-lily-calectasia-cyanea . In effect under the EPBC Act from 12-Mar-2010 as <i>Calectasia cyanea</i> .
Adopted/Made Threat Abatement Plans	No Threat Abatement Plan has been identified as being relevant for this species

[Top](#)

Other Commonwealth Documents

Federal Register of Legislative Instruments	<p>Recovery Plan: Environment Protection and Biodiversity Conservation Act - section 269A - Instrument Adopting and Revoking Recovery Plans (01/03/2010) (QLD, VIC, WA) (Commonwealth of Australia, 2010q) [Legislative Instrument] as <i>Calectasia cyanea</i></p> <p>Threatened: Inclusion of species in the list of threatened species under section 178 of the Environment Protection and Biodiversity Conservation Act 1999 (45) (14/08/2006) (Commonwealth of Australia, 2006j) [Legislative Instrument] as <i>Calectasia cyanea</i></p>
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State Listing Status WA: **Listed as Critically Endangered** (Biodiversity Conservation Act 2016 (Western Australia): September 2022 list) as *Calectasia cyanea*

[Top](#)

Naming

Scientific name	<i>Calectasia cyanea</i> [7669]
Family	Dasygogonaceae:Liliales:Liliopsida:Magnoliophyta:Plantae
Species author	R.Br.
Infraspecies author	
Reference	Prodromus Florae Novae Hollandiae (27 Mar. 1810) 264.
Other names	<i>Calectasia cyanea</i> var. <i>cyanea</i> [45137]

[Top](#)

Distribution Map

Distribution map



The distribution shown is generalised from the Departments Species of National Environmental Significance dataset. This is an indicative distribution map of the present distribution of the species based on best available knowledge. Some species information is withheld in line with sensitive species policies. See [map caveat](#) for more information.

[Top](#)

Illustrations

Illustrations [Google Images](#)

Other Links, Including Superseded Commonwealth Documents

Centre for Plant Biodiversity Research (undated). *Australian Plant Census*. Australian National Botanic Gardens, Canberra. Available from: <http://www.anbg.gov.au/chah/apc/>.

Commonwealth of Australia (2006). *Inclusion of species in the list of threatened species under section 178 of the Environment Protection and Biodiversity Conservation Act 1999 (45) (14/08/2006)*. F2006L02714. Canberra: Federal Register of Legislative Instruments. Available from: <http://www.comlaw.gov.au/Details/F2006L02714>. In effect under the EPBC Act from 19-Aug-2006.

Western Australian Department of Conservation and Land Management (WA CALM) (2005). *Records held in CALM's Declared Flora Database and Rare flora files*. Perth, Western Australia: WA CALM.

Newsletters

[EPBC Act](#) email updates can be received via the [Communities for Communities newsletter](#) and the [EPBC Act newsletter](#).

Caveat

This database is designed to provide statutory, biological and ecological information on species and ecological communities, migratory species, marine species, and species and species products subject to international trade and commercial use protected under the *Environment Protection and Biodiversity Conservation Act 1999* (the [EPBC Act](#)). It has been compiled from a range of sources including listing advice, recovery plans, published literature and individual experts. While reasonable efforts have been made to ensure the accuracy of the information, no guarantee is given, nor responsibility taken, by the Commonwealth for its accuracy, currency or completeness. The Commonwealth does not accept any responsibility for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the information contained in this database. The information contained in this database does not necessarily represent the views of the Commonwealth. This database is not intended to be a complete source of information on the matters it deals with. Individuals and organisations should consider all the available information, including that available from other sources, in deciding whether there is a need to make a referral or apply for a permit or exemption under the [EPBC Act](#).

Citation: Department of the Environment (2023). *Calectasia cyanea* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <https://www.environment.gov.au/sprat>. Accessed Fri, 14 Apr 2023 15:53:49 +1000.

Where available the sections below provide a biological profile for the species. Biological profiles vary in age and content across species, some are no longer being updated and are retained as archival content. These profiles are still displayed as they contain valuable information for many species. The Profile Update section below indicates when the biological profile was last updated for some species. For information to assist regulatory considerations, please refer to Conservation Advice, the Recovery Plan, Policy Statements and Guidelines.

Profile Update

The following detailed profile was last updated on 16 February 2007.

Taxonomy

Scientific name: *Calectasia cyanea* (Brown 1810).

Common name: Blue Tinsel Lily (Seaton 1965; WA Herbarium 2005).

Description

The Blue Tinsel Lily is a rhizomatous, clump forming, woody perennial herb growing between 0.1 m and 0.6 m high to 0.3 m wide. Blue Tinsel Lily flowers are vivid blue/purple, anthers are red and yellow (WA Herbarium 2005).

Australian Distribution

The Blue Tinsel Lily is endemic to Western Australia and is known from a single population approximately 10 km south of Albany (CALM 2005).

The species was incorrectly recorded in the past as being widespread throughout south-west Western Australia. However, this was due to misidentification (the species was previously mistaken for *C. narragara*) and it is now known that true Blue Tinsel Lily (*Calectasia cyanea*) is confined to a small area south of Albany (CALM 2005).

The current extent of occurrence of the Blue Tinsel Lily is 0.02 km² (CALM 2005).

There is little data to indicate current decline in the extent of occurrence of this very restricted species. The original extent of occurrence is unknown, but several collections made by early botanists were unlikely to have been collected at the same place as the current population (S.Barrett 2005, pers. comm.). Earlier specimens are believed to have been found in the vicinity of Albany, although no exact details on these locations are available (CALM 2005).

The area of occupancy of the Blue Tinsel Lily is 0.02 km². There is little data to indicate decline in area of occupancy of this restricted species (CALM 2005).

As the species is only currently known from a single population within the Torndirrup National Park, it cannot be considered to have a fragmented distribution (CALM 2005).

There are no translocated populations of this species. A limited amount of seed material has been collected and is currently stored at the West Australian Threatened Flora Seed Centre (TFSC 2005).

Surveys Conducted

The following table outlines the survey records of the single known population of the Blue Tinsel Lily (CALM 2005):

Survey date	No. mature plants	No. juvenile plants	Condition
28/8/04	50+	20+	Healthy, plants in flower or buds
4/12/03	60+	-	-
17/9/03	56+	13	3 dead plants, otherwise moderate

Surveys have been conducted in an attempt to locate additional populations. Details are as follows (CALM 2005):

- A CALM flora conservation officer at Albany, undertook surveys in the area of the known population, at Sharp Point (Eclipse Island Road), and towards the coast on 3/1/02. Only two adult plants could be located, plus ten juveniles had recruited after a fire in 1997 were found at the known population.
- Surveys were also conducted further west of the known population site on laterite ridges, plus West Cape Howe (except Lake William). In addition, the Mutton Bird area was also surveyed. Surveys were carried out on the 3/1/02. These sites are beyond Torndirrup National Park, further west along the coast from Albany.
- The CALM Officer also located only *C. grandiflora* in Gull Rock during surveys undertaken in December 2001. (Gull Rock is north east of Torndirrup approximately 20km across King George Sound)
- A CALM officer also undertook additional surveys of other suitable habitat areas, within Torndirrup National Park, on the 25/1/02, but without success. Further surveys were conducted in 2003 and to a lesser extent in 2004 (Barrett 2005 pers. comm.).
- Additional extensive surveys at Torndirrup National Park, Sandpatch, West Cape Howe, Two Peoples Bay and Gull Rock in October / November 2002 and Torndirrup National Park and Gull Rock in September 2003 have again failed to locate any additional populations. These sites are within the Albany region.

Population Information

The total population of the Blue Tinsel Lily is estimated to be 70 individuals. Of these, 20 are juveniles (CALM 2005).

The Blue Tinsel Lily was recorded in January 2002 as having a substantially smaller population. Actual numbers of known individuals were two mature plants and 10 seedlings that were observed to be in a healthy condition and believed to have been recruited after a fire in 1997 (CALM 2005).

In September 2003, population size was estimated as 56+ adults and in December 2003 60+ adults (CALM 2005).

In August 2004, the population was recorded to have declined to 50+ mature plants and 20 juveniles all of which were assessed to be in a healthy condition. This variation in population numbers may be due to slight discrepancies in recording rather than changes in population size, although district staff have indicated that there has been some decline in the number of mature individuals (CALM 2005).

The Blue Tinsel Lily is a fire sensitive obligate seeder and therefore the population structure will change after fire. Plant numbers have been observed to decrease with time after fire. Knowledge of past fire regimes is very limited as per most locations in the south-west of Western Australia. Approximately 50% of juveniles flowered in 2004 and were last burnt in 1997, thus implying a juvenile period of approximately seven years. It is generally thought that a time period at least twice the length of the juvenile period (age of first flowering) would be required to develop an adequate seed bank. This would infer that at least a 14 year fire interval would be required for this species (CALM 2005).

The generation length of this species is largely unknown, although it has been noted that this species is very slow growing with three year old seedlings only being 3 to 6 cm tall (Barrett & Dixon 2001). The closely related species *C. gracilis* and *C. pignattiana* are thought to take three to five years to flower and presumably a substantially longer period to attain maximum reproductive potential (Barrett & Dixon 2001).

[Top](#)

Land Tenure of Populations

The single known population of the Blue Tinsel Lily occurs in the Torndirrup National Park and is comprehensively managed by CALM (CALM 2005).

[Top](#)

Habitat

The Blue Tinsel Lily occurs in heathland on flat to gentle slope growing in white sand or laterite gravel with the parent soil material being laterite (CALM 2005).

Species associated with the Blue Tinsel Lily include: *Allocasuarina humilis*, *Banksia grandis*, *Adenanthos cuneatus*, *Hakea ruscifolia* and *Melaleuca thymoides* (S.Barrett 2005, pers. comm.; Brown et al. 1998).

The known population of the Blue Tinsel Lily occurs in the Torndirrup National Park in an area that contains populations of a number of other rare and priority flora. Populations of the priority species *Adenanthos cunninghamii* are found close to the Blue Tinsel Lily population (CALM 2005).

[Top](#)

Life Cycle

Details of the ages of sexual maturity, life expectancy and natural mortality of this species are unknown. However, the species is known to be slow growing. The flowering period occurs from June to October (WA Herbarium 2005). The species is believed to flower between three and five years, and presumably has a substantially longer period to attain maximum reproductive potential (Barrett & Dixon 2001). A portion of the adult population was killed by fire in 1997 and several juveniles still had not flowered by 2004 suggesting a long juvenile period (S.Barrett 2005, pers. comm.).

Little is known about the levels of flower and fruit production of the Blue Tinsel Lily. However, it is speculated that because of the species' floral architecture, it is pollinated by wasps and is therefore indicative of floral mimicry (Barrett & Dickson 2001; CALM 2005).

[Top](#)

Survey Guidelines

The Blue Tinsel Lily is closely related to *C. gracilis* and *C. pignattiana* but differs from these species in its clumping habit (due to vigorous basal sprouting). It also differs from *C. pignattiana* in its non-reflexed mature leaves (Barrett & Dixon 2001). These two closely related species occur further inland than the Blue Tinsel Lily (WA Herbarium 2005).

Blue Tinsel Lily flowers are prominent, and the species has been observed flowering at its known location during 2001-2002. However, the species grows in and among other plants, and would be very difficult to see if not flowering. Like other herbaceous/sub-shrub species they can be overlooked compared to a larger plant such as *Banksia* unless specifically targeted. Hence surveys should be conducted during the flowering period from June to December (CALM 2005).

[Top](#)

Threats

In the past land clearing may have been one of the main threats to this species. However there is little data available to show that the species occurred elsewhere (CALM 2005).

The main current threat to this species is fire. Given the Blue Tinsel Lily only occurs in a single known population and is a fire sensitive obligate seeder, too frequent fire has the potential to eliminate this species within two years (CALM 2005).

In the absence of adequate protection measures against consecutive frequent fire, it is highly likely that the known population could be lost. This population was successfully excluded from a wildfire in November 2003 (Barrett 2005 pers. comm.).

Mature plants close to roads are at increased risk resulting from roadwork activities (CALM 2005).

[Top](#)

Threat Abatement and Recovery

Current recovery actions for the Blue Tinsel Lily population include (CALM 2005);

- A small sample of seed has been collected from this species and is stored at the Threatened Flora Seed Centre (TFSC 2005).
- The known population has been monitored regularly to determine the levels of seedling survival following a wildfire at the site in 1997. Additional surveys have also been carried out to try and locate additional populations but these have been unsuccessful.

Additional proposed recovery actions for the Blue Tinsel population include;

- Mature plants should be protected from wildfire and inappropriate fire management regimes,
- Mature plants close to the road should be protected from road maintenance activities (markers are currently in place),
- Additional germplasm material should be collected (CALM 2005; Barrett 2005 pers. comm.).

[Top](#)

Major Studies

The Blue Tinsel Lily was originally described by Robert Brown (1810). A revision of the genus *Calectasia* was carried out by Barrett and Dixon (2001).

[Top](#)

Management Documentation

Currently there is no recovery plan in place for the Blue Tinsel Lily but as the species is listed as rare under the *West Australian Wildlife Conservation Act 1950*, and is ranked as Critically Endangered under IUCN criteria, an Interim Recovery Plan will be prepared for this species in accordance with CALM draft Policy Statement 9. Given that this species is ranked Critically Endangered a recovery plan will be prepared as soon as possible but is subject to resource availability (CALM 2005).

[Top](#)

Species Profile References

Barrett, R.L. & K.W. Dickson (2001). A revision of the genus (*Calectasiaceae*) with eight new species described from south-west Western Australia. *Nuytsia*. 13 (3):411-448.

Barrett, S. (2005). *Personal Communications*.

Brown, R. (1810). *Prodromus Florae Novae Hollandiae*. Page(s) 263-264.

CALM (2004). *Draft Policy Statement No 9. Conserving Threatened Species and Ecological Communities (Revised)*. Western Australian Department of Conservation and Land Management.

Department of Environment and Conservation (2009h). *Blue Tinsel Lily (Calectasia cyanea) Recovery Plan*. Department of Environment and Conservation, Western Australia. Available from: <http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-blue-tinsel-lily-calectasia-cyanea>. In effect under the EPBC Act from 12-Mar-2010.

IUCN (2001). *IUCN Red List Categories and Criteria version 3.1*. IUCN, Gland Switzerland.

Seaton, J.S. (1965). The blue tinsel lily, *Calectasia cyanea*. *Australian Plants*. 3. Society for Growing Australian Plants, NSW.

West Australian Threatened Flora Seed Centre (WATFSC) (2005). *Records held in the West Australian Threatened Flora Seed Centre Database*. West Australian Department of Conservation and Land Management.

Western Australian Herbarium (2005). *FloraBase - The Western Australian Flora*. Perth, Western Australia: Department of Conservation and Land Management. Available from: <http://florabase.calm.wa.gov.au/>.

ATTACHMENT 3
CALECTASIA CYANEA ALA (2023)

Plantae (/species/https%3A//id.biodiversity.org.au/taxon/apni/51414459) / Charophyta (/species/https%3A//id.biodiversity.org.au/taxon/apni/51414458) / Equisetopsida (/species/https%3A//id.biodiversity.org.au/taxon/apni/51414457) / Magnoliidae (/species/https%3A//id.biodiversity.org.au/taxon/apni/51414456) / Liliaceae (/species/https%3A//id.biodiversity.org.au/taxon/apni/51414455) / Dasypogonales (/species/https%3A//id.biodiversity.org.au/taxon/apni/51283230) / Dasypogonaceae (/species/https%3A//id.biodiversity.org.au/taxon/apni/51283231) / Calectasia (/species/https%3A//id.biodiversity.org.au/taxon/apni/51283229) / Calectasia cyanea

Calectasia cyanea R.Br.

JSON (<https://bie-ws.ala.org.au/ws/species/https://id.biodiversity.org.au/node/apni/2890692.json>)

species Accepted Name authority: APC

Blue Tinsel Lily

- Overview
- Gallery
- Names
- Classification
- Records
- Literature
- Sequences
- Data Partners
- Traits



(<https://images.ala.org.au/image/proxyImageThumbnailLarge?imageId=aafeca21-6dd7-443e-9633-72630f607d8b>)
 (<https://images.ala.org.au/image/proxyImageThumbnailLarge?imageId=2106d146-ee27-44bc-8dd2-b7ec5652c8cd>)
 (<https://images.ala.org.au/image/proxyImageThumbnailLarge?imageId=6debe618-a4c1-44ab-9f21-b43b9d0afc35>)
 (<https://images.ala.org.au/image/proxyImageThumbnailLarge?imageId=07ba43f0-34e0-4c90-9bd3-70b7d4a1a37c>)



Conservation Status

- AUS** Critically Endangered (<https://collections.ala.org.au/public/show/dr656>)
- WA** Critically Endangered (<https://collections.ala.org.au/public/show/dr2201>)

Calectasia cyanea

Calectasia cyanea, commonly known as the **star of Bethlehem** or **blue tinsel lily**, is a plant in the family Dasypogonaceae (<http://en.wikipedia.org/wiki/Dasypogonaceae>) growing as a perennial herb and is endemic (<http://en.wikipedia.org/wiki/Endemism>) to the south-west of Western Australia (http://en.wikipedia.org/wiki/Western_Australia). Restricted to a single population in Torndirrup National Park (http://en.wikipedia.org/wiki/Torndirrup_National_Park),^[1] it is critically endangered.

Contents

- 1 Description
- 2 Taxonomy and naming
- 3 Distribution and habitat
- 4 Conservation status

- 5 References

Description

Calectasia cyanea is a clump forming woody perennial (http://en.wikipedia.org/wiki/Perennial_plant) herb (http://en.wikipedia.org/wiki/Herbaceous_plant) growing to a height of about 60 centimetres (20 in) and a width of 30 centimetres (10 in). Unlike some other members of the genus (such as *C. grandiflora* (http://en.wikipedia.org/wiki/Calectasia_grandiflora)) this species lacks a rhizome (<http://en.wikipedia.org/wiki/Rhizome>), the stems have only a few short side branches and the leaves are 6.5–13.2 millimetres (0.3–0.5 in) long and 1.0–1.3 millimetres (0.04–0.05 in) wide. The six petals are dark blue, fading to white with age and the central anthers are yellow, turning orange-red with age.^[2] Flowers appear from June to October.^[3]

In 1840, Robert Marnock (http://en.wikipedia.org/wiki/Robert_Marnock) described this species as:

Undoubtedly one of the most beautiful of the floral productions of the South-Western Coast of Australia. Sir William Hooker (http://en.wikipedia.org/wiki/William_Jackson_Hooker) says, "We figure it on account of its great beauty, a beauty which is scarcely altered by drying, for the form and colour of both leaves and flowers is truly of that kind called everlasting; and partly with the hope that our cultivators may be induced to import this lovely plant as an ornament to our greenhouses. Nothing can exceed the richness of the bright purple perianths and the contrasting deep orange-coloured anthers. It grows in sandy soil among shrubs.^[4]

John Lindley (http://en.wikipedia.org/wiki/John_Lindley) also remarked on the beauty of this species: "In the first place there is that most beautiful plant *Calectasia cyanea*, R.Br., a bush like an *Adansonia* (<http://en.wikipedia.org/wiki/Adansonia>), with quantities of large blue flowers with deep orange-coloured anthers; this is the handsomest Endogen (<http://en.wikipedia.org/wiki/Monocotyledon>) in the Colony."^[5]

Taxonomy and naming

Calectasia cyanea is one of eleven species in the genus *Calectasia* (<http://en.wikipedia.org/wiki/Calectasia>). It was first described by Robert Brown (http://en.wikipedia.org/wiki/Robert_Brown_%28botanist_born_1773%29) in *Prodromus Florae Novae Hollandiae* (http://en.wikipedia.org/wiki/Prodromus_Florae_Novae_Hollandiae) in 1810.^[6] The specific epithet (http://en.wikipedia.org/wiki/Botanical_name) (*cyanea*) is from the Ancient Greek (http://en.wikipedia.org/wiki/Ancient_Greek) *κυανός* (*kyanós*) meaning "dark blue" referring to the flower colour.^[7] Common names include blue tinsel lily and star of Bethlehem.^[8]

Distribution and habitat

The Star of Bethlehem has a very restricted distribution in the Torndirrup National Park (http://en.wikipedia.org/wiki/Torndirrup_National_Park) and Albany (http://en.wikipedia.org/wiki/Albany,_Western_Australia) regions of the South West Botanical Province (http://en.wikipedia.org/wiki/Southwest_Australia).^[2] Old records show it as being common in the region of King George Sound (http://en.wikipedia.org/wiki/King_George_Sound) but much of this area is now urbanised as the city of Albany or devoted to agriculture. It grows in yellow sand over laterite.^[2] The total population was estimated at around 70 plants in 2005 in an area around 0.02 square kilometres.^[1]

Conservation status

Calectasia cyanea is classified as *Critically endangered* by the Department of the Environment and Water Resources and the Department of the Environment, Canberra.^[1] It is vulnerable to, and threatened by, dieback (*Phytophthora cinnamomi* (http://en.wikipedia.org/wiki/Phytophthora_cinnamomi)) and grazing by the western grey kangaroo (http://en.wikipedia.org/wiki/Western_grey_kangaroo).^[1]

References

- ↑ ^a ^b ^c ^d ^e Douglas, Craig; Barrett, Sarah; Fairs, Amanda. "Blue Tinsel Lily (*Calectasia cyanea*) recovery plan" (<http://www.environment.gov.au/system/files/resources/bb23dd69-57b6-4177-97a9-53f9989d870f/files/calectasia-cyanea.pdf>) (PDF). Australian Government Department of Conservation and Environment. Retrieved 20 April 2016.
- ↑ ^a ^b ^c Barrett, Russell L.; Dixon, Kingsley W. (8 January 2001). "A revision of the genus *Calectasia* (Calectasiaceae) with eight new species described from south-west Western Australia" (<https://www.researchgate.net/publication/234814283>). *Nuytsia*. **13** (3): 411–48 [422]. Retrieved 18 February 2015.
- ↑ Paczkowska, Grazyna; Chapman, Alex R. (2000). *The Western Australian flora : a descriptive catalogue*. Perth: Wildflower Society of Western Australia. p. 58. ISBN (http://en.wikipedia.org/wiki/ISBN_%28identifier%29) 0646402439 (<http://en.wikipedia.org/wiki/Special:BookSources/0646402439>).
- ↑ Marnock, Robert (1840). "Notices of New Plants" (<https://books.google.com/books?id=zkmZQAAlAAJ&pg=PA158>). *The Floricultural Magazine and Miscellany of Gardening*. V: 158.
- ↑ Lindley, John (1839). *Edward's botanical register, volume 25* (<https://books.google.com/books?id=UH1MAAAAYAAJ&pg=PR57>). London: James Ridgway, Piccadilly. p. lvii.
- ↑ Brown, Robert. "Prodromus florae Novae Hollandiae et Insulae Van-Diemen : exhibens characteres plantarum" (<https://www.biodiversitylibrary.org/item/21771#page/133/mode/1up>). pp. 263–264. Retrieved 19 February 2015.
- ↑ H. G. Liddell and R. Scott (9/e 1940) *A Greek-English Lexicon*, p. 1003. Oxford University Press.
- ↑ "*Calectasia cyanea*" (<https://biodiversity.org.au/boa/instance/apni/518642>). APNI. Retrieved 10 August 2015.

Source: http://en.wikipedia.org/w/index.php?title=Calectasia_cyanea&oldid=1065915621 (http://en.wikipedia.org/w/index.php?title=Calectasia_cyanea&oldid=1065915621)

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Provided by: Encyclopedia of Life (<https://eol.org/pages/1125164>)

Calectasia cyanea: Brief Summary

Calectasia cyanea, commonly known as the star of Bethlehem or blue tinsel lily, is a plant in the family Dasygogonaceae (<http://en.wikipedia.org/wiki/Dasygogonaceae>) growing as a perennial herb and is endemic (<http://en.wikipedia.org/wiki/Endemism>) to the south–west of Western Australia (http://en.wikipedia.org/wiki/Western_Australia). Restricted to a single population in Torndirrup National Park (http://en.wikipedia.org/wiki/Torndirrup_National_Park), it is critically endangered.

Source: http://en.wikipedia.org/w/index.php?title=Calectasia_cyanea&oldid=1065915621 (http://en.wikipedia.org/w/index.php?title=Calectasia_cyanea&oldid=1065915621)

Rights holder: Wikipedia authors and editors

Provided by: Encyclopedia of Life (<https://eol.org/pages/1125164>)

Online Resources

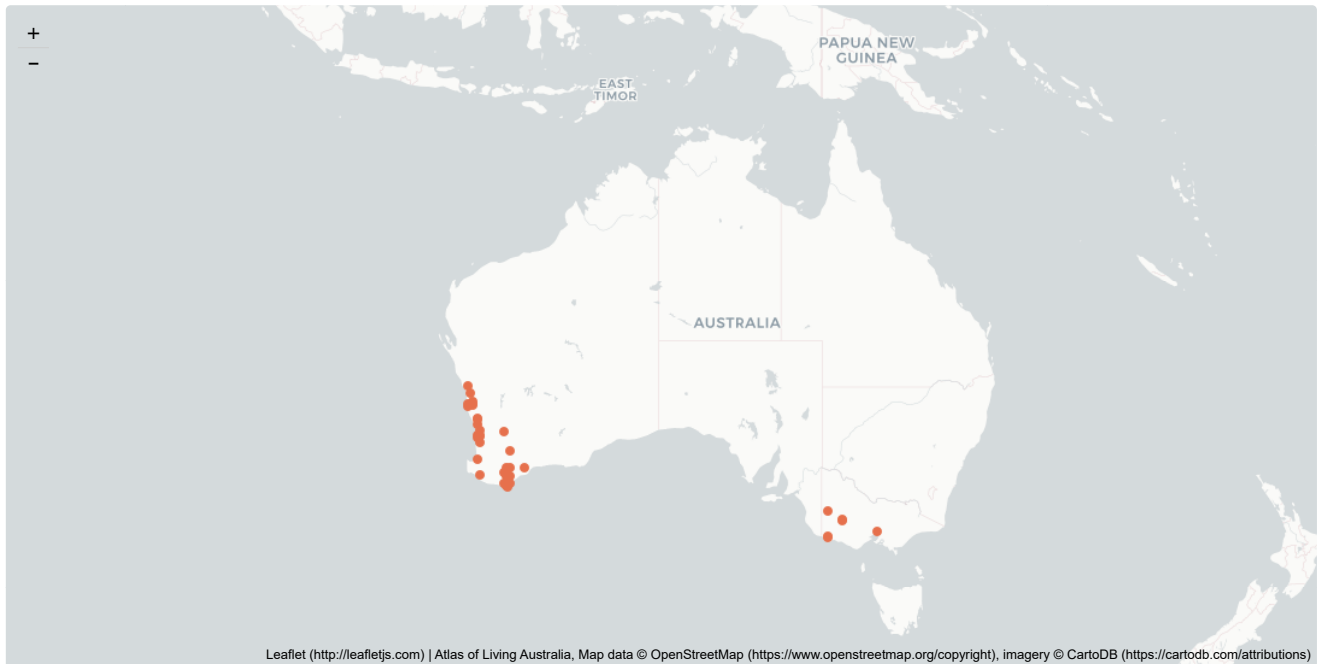
- JSON (data interchange format) (<https://bie-ns.ala.org.au/ws/species/https://id.biodiversity.org.au/node/apni/2890692.json>)
- GBIF (http://www.gbif.org/species/search?q=Calectasia_cyanea)
- Encyclopedia of Life (http://eol.org/search?q=Calectasia_cyanea&show_all=true)
- Biodiversity Heritage Library (http://www.biodiversitylibrary.org/search?searchTerm=Calectasia_cyanea#/names)
- PESI (<http://www.eu-nomen.eu/portal/>)
- ARKive (http://www.arkive.org/explore/species?q=Calectasia_cyanea)

Compiled distribution map



Compiled distribution map provided by Australia - Species of National Environmental Significance Database (Public Grids) (<http://www.environment.gov.au/science/erin/databases-maps/snes>)

Occurrence records map (128 records)



Leaflet (<http://leafletjs.com>) | Atlas of Living Australia, Map data © OpenStreetMap (<https://www.openstreetmap.org/copyright>), imagery © CartoDB (<https://cartodb.com/attributions>)

View interactive map (<https://spatial.ala.org.au?q=lsid:https://id.biodiversity.org.au/node/apni/2890692&qualityProfile=ALA>) search?q=

https://www.ala.org.au/home/record-a-sighting/)"/>

Datasets

18 datasets have provided data to the Atlas of Living Australia for this species.

Browse the list of datasets and find organisations you can join if you are interested in participating in a survey for species like *Calectasia cyanea* R.Br.

Western Australia : Conservation status

W A Taxon Id	1213.0
status	Critically Endangered
sourceStatus	Critically Endangered
W A Status	T
W A Rank	CR
E P B C Status	CR
E P B C Desc	Critically Endangered
sensitivityZoneld	WA
county	SCST
municipality	ALBANY

Provided by: Western Australia : Conservation status (<https://lists.ala.org.au/speciesListItem/list/dr2201>)

Western Australia : Conservation Status / Sensitive Species Lists

status code	CR
status	Critically endangered

Provided by: Western Australia : Conservation Status / Sensitive Species Lists (<https://lists.ala.org.au/speciesListItem/list/dr467>)

EPBC Act Threatened Species

taxonID	7669
status	Critically Endangered
Threatened Species Listed Name	Calectasia cyanea
Threatened Species Date Effective	2006-08-18
Conservation Advice	03-Jul-08
Recovery Plan	12-Mar-10
Recovery Plan Decisions	Recovery Plan required
Taxon Group	monocots (single seed leaf)
Western Australia	Endemic
sourceStatus	Critically Endangered

Provided by: EPBC Act Threatened Species (<https://lists.ala.org.au/speciesListItem/list/dr656>)



My profile (<https://auth.ala.org.au/userdetails/myprofile/>)

Logout (/logout?)

 (<http://www.facebook.com/atlasoflivingaustralia>)

 (<http://www.twitter.com/atlaslivingaustr>)

Record a Sighting
(<https://www.ala.org.au/home/record-a-sighting/>).

Upload your observations, identify species, and contribute to the ALA.

Explore the Spatial Portal
(<https://spatial.ala.org.au/>).

Visualise and analyse relationships between species, location and environment.

Search & analyse

- Search species (<https://bie.ala.org.au/>)
- Search & download records (https://biocache.ala.org.au/search#tab_simpleSearch)
- Search datasets (<https://collections.ala.org.au/datasets>)
- Spatial analysis (Spatial Portal) (<https://spatial.ala.org.au/>)
- Explore your area (<https://biocache.ala.org.au/explore/your-area>)
- Explore natural history collections (<https://collections.ala.org.au/>)
- Explore regions (<https://regions.ala.org.au/>)
- Browse Australian iconic species (<https://lists.ala.org.au/iconic-species>)
- Browse specimen images (<https://specimens.ala.org.au/>)

Contribute

- Share your dataset (<https://support.ala.org.au/support/solutions/articles/6000261427-sharing-a-dataset-with-the-ala>)
- Upload species list (<https://lists.ala.org.au/public/speciesLists>)
- Record a sighting (<https://www.ala.org.au/home/record-a-sighting/>)
- Transcribe & digitise (DigiVol) (<https://digivol.ala.org.au/>)

Discover citizen science projects (<https://biocollect.ala.org.au/acsa>)

Download mobile apps (<https://www.ala.org.au/who-we-are-3/downloadable-tools/ala-mobile-app/>)

Resources

Brochures and reports (<https://www.ala.org.au/publications/>)

ALA logo and identity (<https://www.ala.org.au/ala-logo-and-identity/>)

Biosecurity Hub (<https://www.ala.org.au/biosecurity>)

ALA-cited publications (<https://www.ala.org.au/ala-cited-publications/>)

Education resources (<https://www.ala.org.au/education-resources/>)

Data Mobilisation Program (<https://www.ala.org.au/abdmp/>)

ALA Labs (<https://labs.ala.org.au/>)

About (<https://www.ala.org.au/about-ala/>)

About us (<https://www.ala.org.au/about-ala/>)

Governance (<https://www.ala.org.au/governance>)

News & media (<https://www.ala.org.au/blog/>)

Careers (<https://www.ala.org.au/careers/>)

Contact us (<https://www.ala.org.au/contact-us/>)

Current projects (<https://www.ala.org.au/current-projects/>)

International Living Atlases (<https://living-atlases.gbif.org/>)

Indigenous ecological knowledge (<https://www.ala.org.au/indigenous-ecological-knowledge/>)

All sites, services & tools (<https://www.ala.org.au/sites-and-services/>)

Tools

BioCollect (<https://www.ala.org.au/biocollect/>)

galah (<https://galah.ala.org.au/>)

Zoatrack (<https://zoatrack.org/>)

Flora of Australia (<https://profiles.ala.org.au/opus/foa>)

MERIT (<https://fieldcapture.ala.org.au/>)

ALA dashboard (<https://dashboard.ala.org.au/>)

All sites, service and tools (<https://www.ala.org.au/sites-and-services/>)

Community hubs

AVH: Australasian Virtual Herbarium (<https://avh.ala.org.au/>)

OZCAM: Online Zoological Collections (<https://ozcam.ala.org.au/>)

ASBP: Australian Seed Bank Partnership (<https://asbp.ala.org.au/>)

ALA for...

ALA for researchers (<https://www.ala.org.au/ala-for-researchers>)

ALA for government and land managers (<https://www.ala.org.au/ala-for-government-and-land-managers-2/>)

ALA for community and schools (<https://www.ala.org.au/ala-for-community-and-schools-2/>)

Help

Browse all articles (FAQs) (<https://support.ala.org.au/support/home>)

ALA Data help (<https://support.ala.org.au/support/solutions/6000137994>)

ALA Tools & Apps help (<https://support.ala.org.au/support/solutions/6000138053>)

ALA Spatial Portal help (<https://support.ala.org.au/support/solutions/6000138349>)

Contact us (<https://www.ala.org.au/contact-us/>)

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[Developer tools & documentation \(https://support.ala.org.au/support/solutions/folders/6000233596\)](https://support.ala.org.au/support/solutions/folders/6000233596)

[All sites, services & tools \(https://www.ala.org.au/sites-and-services/\)](https://www.ala.org.au/sites-and-services/)

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Acknowledgement of Traditional Owners and Country

The Atlas of Living Australia acknowledges Australia's Traditional Owners and pays respect to the past and present Elders of the nation's Aboriginal and Torres Strait Islander communities. We honour and celebrate the spiritual, cultural and customary connections of Traditional Owners to country and the biodiversity that forms part of that country.

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