

# Threatened Species Nomination Form

For nominations/assessments under the Common Assessment Method (CAM).

## Cover Page *(Office use only for Assessment)*

Species name (scientific and common name):	<i>Myriocephalus nudus</i>
Nomination for (addition, deletion, change):	Addition
Nominated conservation category and criteria:	Extinct

TSSC assessment of eligibility against the criteria:		
This assessment is consistent with the standards set out in Schedule 1, item 2.7 (h) and 2.8 of the Common Assessment Method Memorandum of Understanding.		Yes <input type="checkbox"/> No <input type="checkbox"/>
A.	Population size reduction	•
B.	Geographic range	•
C.	Small population size and decline	•
D.	Very small or restricted population	•
E.	Quantitative analysis	•

Outcome:			
TSSC Meeting date:			
TSSC comments:			
Recommendation:			
Ministerial approval:		Government Gazette/ Legislative effect:	

## Nomination summary *(to be completed by nominator)*

<b>Current conservation status</b>					
<b>Scientific name:</b>	<i>Myriocephalus nudus</i>				
<b>Common name:</b>					
<b>Family name:</b>	Asteraceae	Fauna <input type="checkbox"/>		Flora <input checked="" type="checkbox"/>	
<b>Nomination for:</b>	Listing <input checked="" type="checkbox"/>		Change of status <input type="checkbox"/>	Delisting <input type="checkbox"/>	
Is the species currently on any conservation list, either in WA, Australia or Internationally?		Yes <input checked="" type="checkbox"/> If Yes; complete the following table	No <input type="checkbox"/> If No; go to the next question		
<b>Jurisdiction</b>	<b>List or Act name</b>	<b>Date listed or assessed</b>	<b>Listing category i.e. critically endangered</b>	<b>Listing criteria i.e. B1ab(iii)+2ab(iii)</b>	
International	IUCN Red List				
National	EPBC Act				
State of WA	WC Act	Assessed 5/4/2017	Extinct	-	
	DPaW Priority list	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Other States or Territories					
<b>Consistent with Schedule 1, item 2.7 (h) and 2.8 of the Common Assessment Method Memorandum of Understanding, it is confirmed that:</b>					
<ul style="list-style-type: none"> <li>this assessment meets the standard of evidence required by the Common Assessment Method to document the eligibility of the species under the IUCN criteria;</li> </ul>			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Comments:</b>					
<ul style="list-style-type: none"> <li>surveys of the species were adequate to inform the assessment;</li> </ul>			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Comments:</b>	<p>The species is apparently a wetland/claypan annual, very similar in gross morphology (slender erect unbranched annual with a swollen hollow stem base) to the annual daisy <i>Rhodanthe pyrethrum</i>, which is confined to this habitat.</p> <p>Searched for by GJ Keighery for over 10 years. Not collected despite intense searches by many botanists of claypans in SW Australia over last 29 years.</p> <p>All bushland remnants containing claypans in area (Moora to Beverley) have been visited on multiple occasions by many botanists at many different times of the year. It is possible that the species was collected by Drummond at the same time as the type of the aquatic grass, <i>Glyceria drummondii</i>, however, all populations of this species (Kodjee &amp; Beverley) in the area of Drummond's collecting have been searched for <i>Myriocephalus</i> without locating any plants.</p> <p>Detailed surveys over many years as part of Swan Coastal Plain floristics, Wheatbelt biological survey both terrestrial and aquatic survey, Claypan TEC surveys. These surveys have located many rare and presumed extinct flora species but not <i>Myriocephalus nudus</i>.</p>				

<ul style="list-style-type: none"> <li>the conclusion of the assessment remains current and that any further information that may have become available since the assessment was completed supports or is consistent with the conclusion of the assessment.</li> </ul>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Comments:</b>		This species is only known from the type collection by James Drummond in the period 1841-1843. It was previously confused with <i>Myriocephalus oldfieldii</i> until clarified in 2002. All other collections believed to be the species are <i>Myriocephalus oldfieldii</i> , and hence <i>Myriocephalus nudus</i> only known from the type specimen. Extensive searching of the likely habitat generally over 29 years, and specifically over 10 years, has failed to relocate an extant population of the species.			
<b>Nominated conservation status: category and criteria</b> (including recommended categories for deleted species)					
Presumed extinct (EX) <input checked="" type="checkbox"/>		Critically endangered (CR) <input type="checkbox"/>		Endangered (EN) <input type="checkbox"/>	
None (least concern) <input type="checkbox"/>		Data Deficient <input type="checkbox"/>		Conservation Dependent <input type="checkbox"/>	
<b>What criteria support the conservation status category above?</b>				-	
<b>Eligibility against the criteria</b>					
Provide justification for the nominated conservation status; is the species eligible or ineligible for listing against the five criteria. For <b>delisting</b> , provide details for why the species no longer meets the requirements of the current conservation status.					
<b>A.</b>	Population size reduction	<ul style="list-style-type: none"> <li>This species is only known from the type collection.</li> <li>Searches have failed to locate a population.</li> <li><b>Absence of data indicates the species is eligible for listing as Extinct</b></li> </ul>			
<b>B.</b>	Geographic range	<ul style="list-style-type: none"> <li>This species is only known from the type collection.</li> <li>Searches have failed to locate a population.</li> <li><b>Absence of data indicates the species is eligible for listing as Extinct</b></li> </ul>			
<b>C.</b>	Small population size and decline	<ul style="list-style-type: none"> <li>This species is only known from the type collection.</li> <li>Searches have failed to locate a population.</li> <li><b>Absence of data indicates the species is eligible for listing as Extinct</b></li> </ul>			
<b>D.</b>	Very small or restricted population	<ul style="list-style-type: none"> <li>This species is only known from the type collection.</li> <li>Searches have failed to locate a population.</li> <li><b>Absence of data indicates the species is eligible for listing as Extinct</b></li> </ul>			
<b>E.</b>	Quantitative analysis	<ul style="list-style-type: none"> <li><b>Insufficient information to assess</b></li> </ul>			
<b>Summary of assessment information</b> (detailed information to be provided in the relevant sections of the form)					
EOO	Unknown		AOO	Unknown	Generation length
No. locations	0		Severely fragmented		Yes <input type="checkbox"/> No <input type="checkbox"/>
No. subpopulations	0		No. mature individuals		None known

Percentage global population within Australia	
Percentage population decline over 10 years or 3 generations	



Department of  
Parks and Wildlife



## Form to nominate a Western Australian species for listing as threatened, change of category or delisting 2017.

**NOTICE:** Incomplete forms may result in delays in assessment, or rejection of the nomination. To fill out this form you must refer to the Guidelines and contact the relevant Officer in the DPaW Species and Communities Branch. DPaW staff can advise you on how to fill out the form and may be able to supply additional, unpublished information.

Answer all relevant sections, filling in the white boxes and indicating when there is no information available. **Note**, this application form applies to both flora and fauna species, and hence some questions or options may not be applicable to the nominated species – for these questions, type “N/A”.

To mark boxes with a **cross**, double click the box and select not checked or checked.

### SECTION 1. NOMINATION

#### 1.1. Nomination for:

Flora ☒ Fauna ☐ Threatened / DRF ☒ Change of category ☐ Delisting ☐

#### 1.2. Scientific Name

This name will be used to identify the species on all official documentation. Use the approved name used by the Western Australian Museum or Herbarium, if possible.

*Myriocephalus nudus* A. Gray

#### 1.3. Common Name

If the species has a generally accepted common name, please show it here.

#### 1.4. Current Conservation Status. If none, type 'None'.

	IUCN Red List Category e.g. Vulnerable	IUCN Red List Criteria e.g. B1ab(iv);D(1)
International IUCN Red List		
National EPBC Act 1999		
State of Western Australia		
State of WA Priority	1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	

#### 1.5. Nominated Conservation Status.

	IUCN Red List Category e.g. Vulnerable	IUCN Red List Criteria e.g. B1ab(iv);D(1)
State of Western Australia	Presumed extinct	
State of WA Priority	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	

Is the species listed as 'Threatened' in any other Australian State or Territory? If Yes, list these States and/or Territories and the status for each.

No ☒ Yes ☐

<b>1.6. Reasons for the Nomination.</b> <b>Briefly summarise the reasons for the nomination in dot points. Please include details relevant to the IUCN Categories and Criteria where appropriate.</b>
This species is only known from the type collection
Species is apparently a wetland/claypan annual, very similar in gross morphology (slender erect unbranched annual with a swollen hollow stem base) to the annual daisy <i>Rhodanthe pyrethrum</i> , which is confined to this habitat. Searched for by GJ Keighery for over 10 years. Not collected despite intense searches by many botanists of claypans in SW Australia over last 29 years.
<b>SECTION 2. SPECIES</b>
<b>2.1. Taxonomy.</b> <b>Describe the taxonomic history, using references, and describe the key distinguishing features that can be used to separate this taxon from closely related taxa. Include details of the type specimen, changes in taxonomy, scientific names and common names used for the species.</b>
<p>Described by Asha Gray in 1851 (Gray, A. in Hooker, W.J. (ed.) (1851), <i>Hooker's Journal of Botany and Kew Garden Miscellany</i>: 174 [tax. nov.]</p> <p>Type collection: Swan River Drummond s.sn. and Drummond Ist Collection. 53. (collected in ?1841-43).</p> <p>Previously confused with <i>Myriocephalus oldfieldii</i> (Collections in PERTH placed under <i>M. nudus</i> were this species). Illustration in Blackall and Grieve (1975) key is in fact <i>M. oldfieldii</i>.</p> <p>Wilson (2002) Notes and new taxa in the Australian genus <i>Myriocephalus</i> (Asteraceae: Gnaphalieae). <i>Nuytsia</i> 14: 437-444, clarified the taxonomy of the genus and separated the two species.</p> <p><i>Myriocephalus nudus</i> is illustrated in Wilson (2002) differs from <i>M. oldfieldii</i> in having a simple glandular puberulous stem expanded at the base with anchor tipped twin-hairs on the achenes. Wilson (2002) noted that the species was only known from the type (photo in PERTH).</p>
<b>Is this species conventionally accepted? If no, explain why. For example, is there any controversy about the taxonomy? For undescribed species, detail the location of voucher specimens (these should be numbered and held in a recognised institution and be available for reference purposes).</b>
No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>
<b>Describe any known hybridisation with other species in the wild, indicating where this occurs and how frequently.</b>
None known
<b>2.2. Description</b> <b>Describe the physical appearance, habit, behaviour/dispersion and life history. Include anatomy or habit (e.g. size and/or weight, sex and age variation, social structure) and dispersion (e.g. solitary, clumped or flocks etc), and life history (eg short lived, long lived, geophytic, etc).</b>
Annual herb with an expanded air filled hollow stem that grows in flooded claypans.

<b>2.3. Distribution</b>
<b>Describe the distribution of the species in Australia and, if possible, provide a map.</b>
Only known from the type, Swan River Colony.
<b>2.4. Habitat</b>
<b>Describe the non-biological habitat (e.g. aspect, topography, substrate, climate) and biological habitat (e.g. forest type, associated species, sympatric species). If the species occurs in various habitats (e.g. for different activities such as breeding, feeding, roosting, dispersing, basking etc) then describe each habitat.</b>
<b>Non-biological habitat</b>
Wetlands
<b>Biological habitat</b>
Unknown
<b>Does the (fauna) species use refuge habitat e.g. in times of fire, drought or flood? Describe this habitat.</b>
<b>Is the species part of, or does it rely on, a listed threatened ecological community? Is it associated with any other listed threatened species?</b>
Unknown, perhaps part of the species rich claypans TEC.
<b>2.5. Reproduction</b>
<b>Provide an overview of the breeding system.</b>
<b>For fauna:</b> Provide an overview of the breeding system and breeding success, including: when does it breed; what conditions are needed for breeding; are there any breeding behaviours that may make it vulnerable to a threatening process?
<b>For flora:</b> When does the species flower and set fruit? Is the seed produced viable? What conditions are needed for this? What is the pollinating mechanism? If the species is capable of vegetative reproduction, a description of how this occurs, the conditions needed and when. Does the species require a disturbance regime (e.g. fire, ground disturbance) in order to reproduce?
Unknown
<b>2.6. Population dynamics</b>
<b>Provide details on ages of sexual maturity, extent of breeding success, life expectancy and natural mortality. Describe population structure (presence of juveniles/seedlings, mature and senescing individuals).</b>
Unknown
<b>Questions 2.7 and 2.8 apply to fauna nominations only</b>
<b>2.7. Feeding</b>
<b>Summarise food items or sources and timing/availability.</b>
<b>Briefly describe feeding behaviours, including those that may make the species vulnerable to threatening processes.</b>
<b>2.8. Movements</b>
<b>Describe any relevant daily or seasonal pattern of movement for the species, including relevant arrival/departure dates if migratory. Provide details of home range/territories.</b>
<b>SECTION 3. INTERNATIONAL CONTEXT</b>
<b>For species that are distributed both in Australia and in other countries.</b>

**Describe the global distribution.**

**Explain the relationship between the Australian population and the global population. What percentage of the global population occurs in Australia? Is the Australian population distinct, geographically separate or does part, or all, of the population move in/out of Australia's jurisdiction? Do global threats affect the Australian population?**

#### 4.1. Population

Unknown

None

None

Date of survey	Location	Land status	Number of individuals at location	Area of occupancy at location	Condition of site
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[illegible]



<b>Has the number of individuals been counted, or is this an estimate? Provide details of the method of determining the number of individuals.</b>
N/A
<b>Has there been any known reduction in the number of locations, or is this likely in the future? – provide details.</b>
N/A
<b>What is the extent of occurrence (in km<sup>2</sup>) for the species; explain how it was calculated and datasets used. If an accurate estimate is unavailable, provide a range of values or a minimum or maximum area estimate. Include estimates of past, current and possible future extent of occurrence.</b>
N/A
<b>If available, include data that indicates the percentage decline over 10 years or 3 generations (whichever is longer) that has occurred or is predicted to occur.</b>
<b>Is the distribution of the species severely fragmented? Why?</b>
Unknown
<b>Identify important occurrences necessary for the long-term survival and recovery of the species? This may include: key breeding populations, those near the edge of the range of the species or those needed to maintain genetic diversity.</b>
N/A
<b>4.2. Survey effort</b>
<b>Describe the methods to conduct surveys. For example, (e.g. season, time of day, weather conditions); length, intensity and pattern of search effort (including where species not encountered); any limitations and expert requirements.</b>
Claypan areas traversed on foot to identify flora, plus quadrats established in selected claypans, especially those which are TECs and being monitored. Claypan monitoring is done at two times in a year to identify species which may be evident at different times of the year.
<b>Provide details on the distinctiveness and detectability of the species, or the distinctiveness of its habitat, that would assist survey success.</b>
See Wilson (2002) for a detailed description.
<b>Has the species been reasonably well surveyed? Provide an overview of surveys to date (include surveys of known occurrences and surveys for additional occurrences) and the likelihood of its current known distribution and/or population size being its actual distribution and/or population size. Include comments on potential habitat and surveys that were conducted, but where the species was not present/found.</b>
<p>Yes.</p> <p>All bushland remnants containing claypans in area (Moora to Beverley) have been visited on multiple occasions by many botanists at many different times of the year. It is possible that the species was collected by Drummond at the same time as the type of the aquatic grass, <i>Glyceria drummondii</i>, however, all populations of this species (Kodjee &amp; Beverley) in the area of Drummond's collecting have been searched for <i>Myriocephalus</i> without locating any plants.</p> <p>Detailed surveys over many years as part of Swan Coastal Plain floristics, Wheatbelt biological survey both terrestrial and aquatic survey, Claypan TEC surveys. These surveys have located many rare and presumed extinct flora species but not <i>Myriocephalus nudus</i>.</p>

**Identify past, current and future threats indicating whether they are actual or potential. For each threat describe:**

- how and where they impact this species
- what the effect of the threat(s) has been so far (indicate whether it is known or suspected)
- present supporting information/research
- does it only affect certain populations?
- what is its expected effect in the future (is there supporting research/information; is the threat only suspected; does it only affect certain populations?).

[illegible]

Unknown

**Identify key management documentation for the species e.g. recovery plans, conservation plans, threat abatement plans etc.**

**Does this species benefit from the management of another species or community? Explain.**

**How well is the species represented in conservation reserves or covenanted land? Which of these are actively managed for this species? Provide details.**

**Are there any management or research recommendations that will assist in the conservation of the species? Provide details.**

Maintain the condition of claypan areas as potential habitat.

<b>4.5. Other</b>	
Is there any additional information that is relevant to consideration of the conservation status of this species?	
<b>SECTION 5. NOMINATOR</b>	
Nominator(s) name(s)	
Organisation(s)	
Address(s)	
Telephone number(s)	
Email(s)	
Date	01/02/2017
If the nomination has been refereed or reviewed by experts, provide their names and contact details.	
<b>SECTION 6. REFERENCES</b>	
What references or sources did you use to prepare your nomination? Include written material, electronic sources and verbal information. Include full references, address of web pages and the names and contact details of authorities with whom you had verbal communications.	
<p>Personal Field Knowledge (GK). Results of numerous field surveys of potential wetlands by many botanists and rare flora personal.</p> <p>Blackall, W.E. and Grieve, B.J. (1975) How to know Western Australian wildflowers: a key to the flora of the extratropical regions of Western Australia. Part IV . University of W.A. Press, Nedlands.</p> <p>Gray, A. in Hooker, W.J. (ed.) (1851) <i>Hooker's Journal of Botany and Kew Garden Miscellany</i>. 174 [tax. nov.]</p> <p>Wilson (2002) Notes and new taxa in the Australian genus <i>Myriocephalus</i> (Asteraceae: Gnaphalieae). <i>Nuytsia</i> 14: 437-444.</p>	