

**Advice to the Minister for Sustainability, Environment, Water, Population and Communities
from the Threatened Species Scientific Committee (the Committee)
on Amendment to the list of Threatened Species
under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**

1. Reason for Conservation Assessment by the Committee

This advice follows assessment of new information provided through the Species Information Partnership with Western Australia on:

***Banksia aurantia* (orange dryandra)**

2. Summary of Species Details

Taxonomy	In 2007 <i>Dryandra</i> and <i>Banksia</i> merged into one genus (Mast and Thiele, 2007). <i>Dryandra aurantia</i> is now conventionally accepted as <i>Banksia aurantia</i> (A.S.George) A.R. Mast & K.R.Thiele (CHAH 2007).
State Listing Status	Listed as declared rare flora that is rare or likely to become extinct under the Western Australian <i>Wildlife Conservation Act 1950</i> . Managed as vulnerable by the Western Australian Government.
Description	Grows in multi-stemmed clumps with usually more than 10 clumps growing side by side to form a large clump more than 2 m across. Eighty pale orange flowers are within each terminal head (Brown et al., 1998). Has multiple underground stems, covered with pale rust bracts (DEC, 2010).
Distribution	Found only in Wandoo National Park, near Mundaring in Western Australia.
Relevant Biology/Ecology	Thought to have specific habitat requirements as extensive surveys have not found new populations. Clearing of the Wheatbelt is likely to have reduced the area of potential habitat. Regenerates vigorously after fire and autumn fires, though no more than every 10 years. Can regenerate from underground rhizomes, with little evidence of regeneration from seed. An examination of underground rhizomes indicates subpopulations are clonal and may only consist of 2-3 'individuals' (DEC, 2010).
Threats <i>Known</i> <i>Potential</i>	Current threats include inappropriate fire regimes (DEC, 2010). Potential threats include disturbance, weeds, grazing and dieback caused by <i>Phytophthora cinnamomi</i> (TSSC, 2008; DEC, 2010).

3. Public Consultation

Notice of the proposed amendment was made available for public comment for 30 business days. No comments were received.

4. How judged by the Committee in relation to the EPBC Act criteria and Regulations

Criterion 1: It has undergone, is suspected to have undergone or is likely to undergo in the immediate future a very severe, severe or substantial reduction in numbers.

Not eligible

Criterion element	Evidence
Reduction in numbers	Insufficient data – Surveys undertaken between the mid 1990s and 2009 recorded the recent extinction of one population but an overall increase in plant numbers. However, trends in data may be inconsistent as counting individual plants is difficult and counted as number of ‘clumps’ seen. Therefore they may not represent actual plant numbers (DEC, 2010). Given the species is subject to ongoing threats it may undergo a future decline in numbers. However, there are insufficient data to indicate whether this decline will be substantial.

Criterion 2: Its geographic distribution is precarious for the survival of the species **and** is very restricted, restricted or limited.

Eligible for listing as critically endangered

Criterion element	Evidence
Geographic distribution AND Geographic distribution precarious	Very restricted – Extent of occurrence is less than 4.5 km ² and area of occupancy is estimated to be less than 1 km ² (DEC, 2010). Yes – Known from only one location and four extant and one extinct population. Thought to have specific habitat requirements as extensive surveys have not found further populations and clearing of the Wheatbelt is likely to have reduced the area of potential habitat. The extinction of one population has led to a decline in area of occurrence (DEC, 2010).

Criterion 3: The estimated total number of mature individuals is very low, low or limited; **and either**

(a) evidence suggests that the number will continue to decline at a very high, high or substantial rate; **or**

(b) the number is likely to continue to decline **and** its geographic distribution is precarious for its survival.

Eligible for listing as endangered

Criterion element	Evidence
Total no. of mature individuals AND Continued rate of decline	Limited – Approximately 1 880 clumps are recorded which may equate to mature plants, however this may be an over-estimation due to the potential clonal nature of these clumps (DEC 2010). Insufficient data – see Criterion 1.
OR	

Total no. of mature individuals AND Continued decline likely AND Geographic distribution precarious	Limited – Approximately 1 880 clumps are recorded which may equate to mature plants, however this may be an over-estimation due to the potential clonal nature of these clumps (DEC 2010). Yes – see Criterion 2 Yes – see Criterion 2
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Criterion 4: The estimated total number of mature individuals is extremely low, very low or low.

Not eligible

Criterion element	Evidence
Total no. of mature individuals	Not low – Approximately 1 880 clumps are recorded which may equate to mature plants, however this may be an over-estimation due to the potential clonal nature of these clumps (DEC, 2010).

Criterion 5: Probability of extinction in the wild that is at least
 (a) 50% in the immediate future; or
 (b) 20% in the near future; or
 (c) 10% in the medium-term future.

Not eligible

Criterion element	Evidence
Probability of extinction in the wild	No data

5. Recovery Plan

There should not be a recovery plan for *Banksia aurantia* as the approved conservation advice for the species provides sufficient direction to implement priority actions and mitigate against key threats.

6. Recommendations

(i) The Committee recommends that the list referred to in section 178 of the EPBC Act be amended by **transferring** from the **endangered** category to the **critically endangered** category:

Banksia aurantia

(ii) The Committee recommends that there should not be a recovery plan for this species.

Threatened Species Scientific Committee

1 June 2010

References cited in the advice

- Brown A, Marchant and Thomson-Dans (1998). Western Australia's threatened flora. Department of Conservation and Land Management, Western Australia.
- Council of Heads of Australasian Herbaria (CHAH) (2007). Australian Plant Census. Available on the Internet at: <http://www.anbg.gov.au/chah/apc/>
- Department of Environment and Conservation (DEC) (2010). Records held in DEC's Declared Flora Database and rare flora files. Department of Environment and Conservation, Perth.
- Mast AR and Thiele KR (2007). The transfer of *Dryandra* R.Br. to *Banksia* L.f. (Proteaceae). Australian Systematic Botany 20(1): 63–71.
- Threatened Species Scientific Committee (2008). Approved conservation advice for *Dryandra aurantia* (Orange Dryandra).