

**Advice to the Minister for Sustainability, Environment, Water, Population & 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 information gathered through the Commonwealth's partnership agreement with Western Australia, which is aimed at systematically reviewing species that are inconsistently listed under the EPBC Act and relevant Western Australian legislation/lists.

This species was originally listed as endangered under the EPBC Act's predecessor, the *Endangered Species Protection Act 1992*, and its endangered status was retained when the EPBC Act came into force. The Committee provides the following assessment of the appropriateness of the species' transfer to the vulnerable category of the EPBC Act list of threatened species.

***Hypocalymma longifolium* (long-leaved myrtle)**

2. Summary of Species Details

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| Taxonomy | Conventionally accepted as <i>Hypocalymma longifolium</i> F.Muell. |
| State/Territory Listing Status | Listed as declared rare flora (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 | A low hairless shrub, up to 20 cm tall, with rigid erect branches and pale pink to white flowers that have five petals. The leaves are held in opposite pairs and are 4–6 cm long, linear and triangular in cross-section, and taper to a slightly recurved point. The flowers are stalkless and are in pairs held on a short, thick inflorescence stalk (Brown et al., 1998, p. 145). |
| Distribution | This species is endemic to Western Australia and known from one location near the Murchison River (WA DEC, 2010a). This site is located on land which was excised from Murchison House Station, on a rocky breakaway about 0.5 km west of the western boundary of Kalbarri National Park (WA DEC, 2010a). This land is currently Unallocated Crown Land (ex-pastoral lease) proposed for addition to the conservation estate (WA DEC, pers. comm., 2011). |
| Relevant Biology/Ecology | The long-leaved myrtle occurs in damp areas on the west-facing slopes of breakaways. It grows amongst open, low scrub on white sand with sandstone (Brown et al., 1998, p. 145). This species is associated with <i>Melaleuca uncinata</i> , <i>M. filifolia</i> , <i>Lechenaultia chlorantha</i> and <i>Acacia</i> species (Phillimore and English, 2001). |
| Threats <i>Known</i> | There are no known current threats to this species. |

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| <i>Potential</i> | <p>Potential threats to this species include grazing and trampling by feral pigs and goats, which have been observed to be present where the long-leaved myrtle occurs. While grazing on this species has not been observed, the impact on the surrounding habitat as a result of these feral species is a threat to the population (Phillimore and English, 2001).</p> <p>An additional potential threat to the species may be inappropriate fire regimes, as the species' response to fire is uncertain (Phillimore and English, 2001).</p> |
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3. Public Consultation

Notice of the proposed amendment was made available for public comment for 30 business days. Any comments received that are relevant to the survival of the species have been considered by the Committee.

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 | <p>Not substantial – Survey data show that the population has increased between 1992 and 2009 (see Table 1). This is likely to be the result of increased survey effort at the location, as notes from the most recent survey in 2009 suggest that the full extent of this population has not yet been determined (WA DEC, 2010a).</p> <p>Table 1. Survey data for the long-leaved myrtle (WA DEC, 2010a).</p> <table border="1"> <thead> <tr> <th>Population</th> <th>Survey Date</th> <th>Number of Plants</th> </tr> </thead> <tbody> <tr> <td rowspan="7">Murchison River</td> <td>11/11/2009</td> <td>500+</td> </tr> <tr> <td>08/08/2007</td> <td>400</td> </tr> <tr> <td>09/05/2001</td> <td>200</td> </tr> <tr> <td>27/09/2000</td> <td>200</td> </tr> <tr> <td>07/08/1999</td> <td>100</td> </tr> <tr> <td>06/08/1993</td> <td>60</td> </tr> <tr> <td>26/09/1992</td> <td>50</td> </tr> </tbody> </table> | Population | Survey Date | Number of Plants | Murchison River | 11/11/2009 | 500+ | 08/08/2007 | 400 | 09/05/2001 | 200 | 27/09/2000 | 200 | 07/08/1999 | 100 | 06/08/1993 | 60 | 26/09/1992 | 50 |
| Population | Survey Date | Number of Plants | | | | | | | | | | | | | | | | | |
| Murchison River | 11/11/2009 | 500+ | | | | | | | | | | | | | | | | | |
| | 08/08/2007 | 400 | | | | | | | | | | | | | | | | | |
| | 09/05/2001 | 200 | | | | | | | | | | | | | | | | | |
| | 27/09/2000 | 200 | | | | | | | | | | | | | | | | | |
| | 07/08/1999 | 100 | | | | | | | | | | | | | | | | | |
| | 06/08/1993 | 60 | | | | | | | | | | | | | | | | | |
| | 26/09/1992 | 50 | | | | | | | | | | | | | | | | | |

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

Not eligible

| Criterion element | Evidence |
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| Geographic distribution | <p>Very restricted – This species is known from a single location. The area of occupancy for the only known population was estimated to be 0.25 km² at the last survey in November 2009</p> |

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| AND | (WA DEC, 2010a). |
| Geographic distribution precarious | <p>No – This species is known to exist at a limited location, with only one known population from the Murchison River area. However, the number of individual plants recorded during surveys has been increasing since 1992 (see Criterion 1). The species' known area of occupancy has also increased, from an estimated 0.01 km² in 1992 and 1993 and 0.02 km² in 2000, to the most recent estimate of 0.25 km² in 2009 (WA DEC, 2010a). There have been no reported declines or extreme fluctuations in the species' extent of occurrence, quality of habitat or number of locations/ subpopulations.</p> <p>The long-leaved myrtle is located on land that was formerly part of a pastoral lease (WA DEC, pers. comm., 2011). This land has been acquired by the Western Australian Department of Environment and Conservation (WA DEC) for addition to the conservation estate, and until it is formally reserved, the tenure is classified as Unallocated Crown Land (WA DEC, pers. comm., 2011). WA DEC manages proposed conservation estate in the same manner as if it was already formally reserved (WA DEC, pers. comm., 2010b).</p> <p>There are no current known threats to the long-leaved myrtle. Potential threats include inappropriate fire regimes (Phillimore and English, 2001) and habitat destruction by feral pigs and goats.</p> <p>Increased survey effort for this species has resulted in an increase in the known area of occupancy and number of mature individuals. Given that the long-leaved myrtle is located on land that is managed for conservation and has no current known threats, the species' very restricted geographic distribution is not considered to be precarious for its survival.</p> |

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

Not eligible

| Criterion element | Evidence |
|---|---|
| Total no. of mature individuals AND Continued rate of decline | <p>Low – The total number of plants is estimated to be 500+ (WA DEC, 2010a).</p> <p>Not substantial – The recorded number of mature individuals has increased since 1992 (see Criterion 1).</p> |
| OR | |
| Total no. of mature individuals AND Continued decline likely AND | <p>Low – The total number of plants is estimated to be 500+ (WA DEC, 2010a).</p> <p>No – See Criterion 1 and 2</p> |

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| Geographic distribution precarious | No – See Criterion 2 |
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Criterion 4: The estimated total number of mature individuals is extremely low, very low or low

Eligible for listing as vulnerable

| Criterion element | Evidence |
|---------------------------------|---|
| Total no. of mature individuals | Low – The total number of plants is estimated to be 500+ (WA DEC, 2010a). |

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 the long-leaved myrtle as the approved conservation advice for the species provides sufficient direction to implement priority actions and mitigate against key threats.

The Committee notes that the Western Australian Department of Conservation and Land Management produced an Interim Recovery Plan (2001–2004) for the long-leaved myrtle (Phillimore and English, 2001).

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 **vulnerable** category:

Hypocalymma longifolium

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

Threatened Species Scientific Committee
 31 May 2011

7. References cited in the advice

Brown A, Thomson-Dans C and Marchant N (eds) (1998). Western Australia's threatened flora, Department of Conservation and Land Management. Western Australia.

Phillimore R and English V (2001). Long-leaved myrtle (*Hypocalymma longifolium*) Interim Recovery Plan No 88: 2001–2004, Department of Conservation and Land Management.

Western Australian Department of Environment and Conservation (WA DEC) (2010a). Records held in DEC's Declared Rare Flora Database and rare flora files, Department of Environment and Conservation. Western Australia.

Western Australian Department of Environment and Conservation (WA DEC) (2010b). Personal communication by email, 15 November 2010. Department of Environment and Conservation.

Western Australian Department of Environment and Conservation (WA DEC) (2011). Personal communication by email, 10 March 2011. Department of Environment and Conservation.