

**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 new information provided on:

***Homoranthus decumbens* (a shrub)**

2. Summary of Species Details

Taxonomy	Conventionally accepted as <i>Homoranthus decumbens</i> (Byrnes) Craven & S.R. Jones Phenetic analyses of this species in 2007 showed distinct groups within this species and showed clear distinguishing features between specimens from the two populations (Copeland et al., 2007). Furthermore, Brophy et al. (2004) suggested, after comparison of the essential oil composition between the populations, that the variation may support splitting the two populations into two taxa. Copeland (pers. comm., 2009) believes there are two species, with <i>H. decumbens</i> being restricted to the Barakula area.
State Listing Status	Listed as vulnerable under the Queensland <i>Nature Conservation Act 1992</i> .
Description	A shrub growing to 15 cm high and 2 m across. Leaves are opposite, lacking a distinct leaf stalk and are whitish-green when growing then change to reddish-brown. Flowers occur singularly in the leaf axils (Craven and Jones, 1991). <i>Homoranthus decumbens</i> is similar to <i>H. melanostictus</i> which also occurs in the Barakula State Forest. Both have small linear leaves and their yellow flowers are of about the same size. <i>H. decumbens</i> differs by the purplish foliage and the procumbent habit (Bean, pers. comm., 2010).
Distribution	The species is endemic to Queensland, where it is known from two areas: Blackdown Tableland and Barakula State Forest (Queensland Herbarium, 2009).
Relevant Biology/Ecology	The species is found in tall shrubland or heath up to 800 m in altitude. It occurs on the edges of sandstone cliffs or in shallow sandy soil containing lateritic pebbles, and is often associated with species such as <i>Goodenia racemosa</i> , <i>Petrophile</i> spp. (cone bush), <i>Xanthorrhoea</i> spp. (grasstree) and <i>Banksia oblongifolia</i> (dwarf banksia). Flowering has been recorded from September to December, though no fruiting information is available (Wang, 1995).

Threats	
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<i>Known</i>	There are no known threats.
<i>Potential</i>	<p>Potential threats include inappropriate legal collection practices (seeds and cuttings for cultivation), habitat disturbance by road maintenance and inappropriate fire regimes (Wang, 1995).</p> <p>A draft species management profile has been developed by the Department of Natural Resources (Queensland) for foresters, forest resource managers and forest planners. This profile aims to ameliorate impacts during operations under the <i>Forestry Act 1959</i> on forest entitlement areas (state forests and timber reserves) and other public lands (Wang, 1995).</p>

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	No data

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
Geographic distribution AND Geographic distribution precarious	<p>Very restricted – The extent of occurrence is 3 km² and area of occupancy is estimated to be less than 1 km² (Queensland Herbarium 2009).</p> <p>Insufficient data – Known from only two locations, the species' distribution is considered to be severely fragmented as these populations are 300 km apart. One population is found within a national park and the other in a state forest that has identified management actions to ameliorate impacts (Queensland Herbarium, 2009).</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	Very low – In 2001 the Blackdown Tableland National Park population was recorded to consist of about ten plants and the Barakula State Forest population about 50 plants (Copeland, pers. comm., 2001; Bean, pers. comm., 2010). More recent counts have not been undertaken and it is thought that other populations may exist within the Barakula area. Given the small total population estimate, a cautious estimate of number of mature individuals would be very low. No data
OR	
Total no. of mature individuals AND Continued decline likely AND Geographic distribution precarious	Very low – In 2001 the Blackdown Tableland National Park population was recorded to consist of about ten plants and the Barakula State Forest population about 50 plants (Copeland, pers. comm., 2001; Bean, pers. comm., 2010). More recent counts have not been undertaken and it is thought that other populations may exist within the Barakula area. Given the small total population estimate, a cautious estimate of number of mature individuals would be very low. No data Insufficient data – See Criterion 2

- Criterion 4:** The estimated total number of mature individuals is extremely low, very low or low

Eligible for listing as endangered

Criterion element	Evidence
Total no. of mature individuals	Very low – See Criterion 3

- 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	No data

the wild	
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5. Recovery Plan

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

6. Recommendations

The Committee notes that this species is eligible for listing as endangered due to an estimated very low number of mature individuals.

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

Homoranthus decumbens

- (ii) The Committee recommends that there should be a recovery plan for this species.

Threatened Species Scientific Committee

30 November 2010

7. References cited in the advice

Bean AR (2010). Personal communication, 18 October 2010. Botanist, Queensland Herbarium.

Brophy JJ, Goldsack RJ and Copeland LM (2004). Leaf oils of the genus *Homoranthus* (Myrtaceae). *Journal of Essential Oil Research* 16: 26–60.

Copeland LM (2001). Personal communication. Postgraduate student working on a PhD thesis on the genus *Homoranthus* at the University of New England.

Copeland LM (2009). Personal communication by email, 28 October 2009. Botanist, University of New England.

Copeland LM, Bruhl JJ, Craven LA and Brubaker CL (2007). Phenetic analyses of *Homoranthus* (Myrtaceae: Chamelaucieae) on the basis of morphology. *Australian Systematic Botany* 20: 417–27.

Craven LA and Jones SR (1991). A taxonomic review of *Homoranthus* and two allied species of *Darwinia* (both Myrtaceae: Chamelaucieae). *Australian Systematic Botany* 4: 513–33.

Queensland Herbarium (2009). Specimen label information. Viewed 20 July 2009.

Wang J (1995). Species Management Profile for *Homoranthus decumbens*. Department of Natural Resources, Queensland.