

**Advice from the Threatened Species Scientific Committee (the Committee)
on 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 on:

***Dichanthium setosum* (bluegrass)**

2. Summary of Species Details

Taxonomy	Conventionally accepted as <i>Dichanthium setosum</i> S.T.Blake
State Listing Status	Listed as vulnerable under the New South Wales <i>Threatened Species Conservation Act 1995</i> and as a rare under the Queensland <i>Nature Conservation Act 1992</i> .
Description	An upright perennial grass less than 1 m tall. It has mostly hairless leaves. The flowers are densely hairy and clustered together along a stalk in a cylinder shape and appear mostly during summer (Harden, 1993; DECC, 2005a). The species can form pure swards (Ayers et al., 1996) or occur as scattered clumps (DECC, 2005a).
Distribution	<i>Dichanthium setosum</i> occurs chiefly on the northern tablelands in the Saumarez area, west of Armidale, and 18–30 km east of Guyra. It is more rarely found on the north-western slopes, central western slopes and north-western plains of New South Wales, extending west to Narrabri (Ayers et al., 1996). In Queensland it has been reported from the Leichhardt, Morton, North Kennedy and Port Curtis regions (Henderson, 1997). This species occurs in the Mistake Range, in Main Range National Park, and possibly in Glen Rock Regional Park, adjacent to the Main Range National Park (QDNR, 2001).
Relevant Biology/Ecology	The distribution overlaps with 6 EPBC Act-listed threatened ecological communities.
Threats	Identified threats to <i>Dichanthium setosum</i> are heavy grazing by domestic stock, loss of habitat through clearing for pasture improvement and cropping, frequent fires, especially regular burning for agricultural purposes, invasion by introduced grasses, such as <i>Hyparrhenia hirta</i> (coolatai grass), <i>Phyla canescens</i> (lippia) and <i>Eragrostis curvula</i> (African lovegrass) and road widening (Ayers et al., 1996; DECC, 2005b). It is not clear whether these are known past, current or future threats.
<i>Known</i> <i>Potential</i>	

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	No data Insufficient data – Although there is a lack of quantitative population data, records indicate this species is widely distributed and is found within a few national parks. Some threats have been identified, though there is little information regarding their past and current impact on this species. Therefore, there is insufficient data to indicate whether distribution is precarious.

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	No data No data
OR	
Total no. of mature	No data

individuals AND Continued decline likely AND Geographic distribution precarious	No data Insufficient data – 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	No data

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. Recommendations

Although there are insufficient data to assess the species against the criteria, the Committee recommends a precautionary approach be applied and hence that **no amendment** be made to the list referred to in section 178 of the EPBC Act and that ***Dichanthium setosum*** remains eligible for inclusion in the **vulnerable** category of the list.

Threatened Species Scientific Committee

3 June 2010

6. References cited in the advice

Ayers D, Nash S and K Baggett (eds) (1996). Threatened species of western New South Wales. Hurstville, New South Wales.

Blake ST (1944) Monographic Studies in the Australian Andropogoneae, Part I, including Revisions of the Genera Bothriochloa, Capillipedium, Chrysopogon, Vetiveria and Spathia. University of Queensland, Department of Biology, Papers 2(3): 50.

Department of Environment and Conservation New South Wales (DECC) (2005a), *Dichanthium setosum* – Profile.

Available on the Internet at:

<http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=1022> 1

Department of Environment & Conservation New South Wales (DECC) (2005b), *Dichanthium setosum* – Priority actions.

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http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10221

Harden GJ (eds) (1993). Flora of New South Wales, Volume Four. University of New South Wales Press. Kensington, New South Wales.

Henderson RJF (1997). Queensland Plants Names and Distribution. Queensland Herbarium: Indooroopilly.

Queensland Department of Natural Resources (QDNR) (2001). Glen Rock Nature Conservation Assessment.

Available on the Internet at:

http://www.forests.qld.gov.au/forests/fmp/glenrock/gr_mgmt_plan/vol_4/pdf/gr_natcon_020401.pdf