

Advice to the Minister for the Environment and Heritage from the Threatened Species Scientific Committee (the Committee) on Amendments to the list of Threatened Species under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

1. Scientific name (common name)

Paragalaxias julianus (Julian Paragalaxias; Western Paragalaxias)

2. Description

The Julian Paragalaxias is a small, bullet-shaped fish species with a long head that tapers to a long blunt snout. It is the largest of the paragalaxias species and typically grows to 10cm in length. The colour of the upper body and sides is dark brown to black with dark patches or bars extending down the sides. The underbelly is yellow and the fins are almost transparent. The species occurs in rocky areas on lake beds (Jackson 2004).

3. National Context

The Julian Paragalaxias is endemic to the Central Plateau of Tasmania, occurring in the upper reaches of the Western Lakes region in the Ouse, James, Fergus and Little Pine rivers. It is currently listed as rare under the Tasmanian *Threatened Species Protection Act 1995*.

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

The Committee judges the species to be **not eligible** for listing under the EPBC Act. The justification against the criteria is as follows:

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

The Julian Paragalaxias was, until recently, thought to occur at 13 locations in the Central Plateau of Tasmania, but surveys conducted during 2002 and 2003 found the species to be abundant at 27 additional locations. It is also likely that more populations of the species may occur within its known range (Nelson 2004).

There are no data on past or current population trends for this species, and no evidence of a decline in numbers. Additionally, there is no data available to predict a future decline in the species' numbers. Therefore, the species is **not eligible** for listing under this criterion.

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

The Julian Paragalaxias has a restricted geographic distribution. Its extent of occurrence is estimated to be approximately 200 km² and its area of occupancy is estimated to be approximately 30 km².

As discussed under criterion one, the species was thought, until recently, to occur at 13 locations, but surveys conducted during 2002 and 2003 found the species to be abundant at 27 additional locations. It is also likely that more populations of the species may occur within its known range (Nelson 2004).

The presence of brown and rainbow trout (*Salmo trutta* and *Oncorhynchus mykiss*) in all sites occupied by the Julian Paragalaxias has been identified as a potential threat to the species, as trout are

known to predate galaxiids. However, trout have been present in these locations for over a century, so it is difficult to quantify the impact of trout predation on the Julian Paragalaxias, or to establish if predation is in fact a threat to the species.

One site where the species occurs (Lake Augusta) is subject to management for hydroelectricity. Fluctuating water levels due to hydroelectricity activity are known to cause drying and erosion around the rocky lake shores, reducing the extent and quality of habitat in which the species has been recorded. However, this threat is currently limited to a single location and therefore is not impacting on the species across its range to the extent that it is likely to cause a decline in numbers. The Julian Paragalaxias was also found to be abundant across its range in recent surveys (Nelson 2004).

While the species' geographic distribution is restricted, it is not precarious for its survival as there is no evidence to suggest a decline is occurring or likely to occur in the immediate future. Therefore, the species is **not eligible** for listing under this criterion.

Criterion 3 – The estimated total number of mature individuals is limited to a particular degree and: (a) evidence suggests that the number will continue to decline at a particular rate; or (b) the number is likely to continue to decline and its geographic distribution is precarious for its survival

There are no past or current population estimates available for the Julian Paragalaxias. Additionally, while the species' geographic distribution is restricted, it is not precarious for its survival as there is no evidence to suggest a decline is occurring or likely to occur in the immediate future.

Therefore, the species is **not eligible** for listing under this criterion.

Criterion 4 – The estimated total number of mature individuals is extremely low, very low or low

There are no current population estimates for the Julian Paragalaxias. Therefore, there are no data available to assess the species against this criterion.

Criterion 5 – Probability of extinction in the wild

There are no quantitative data available regarding the probability of extinction of the Julian Paragalaxias in the wild and therefore there is insufficient information to assess the species against this criterion.

5. CONCLUSION

The species is **not eligible** for listing under the EPBC Act.

6. Recommendation

The Committee recommends that the species *Paragalaxias julianus* (**Julian Paragalaxias**) is **not eligible** for inclusion in the list referred to in section 178 of the EPBC Act.

References cited in the advice

Jackson, J. E. (2004). Draft Tasmanian Galaxiidae Recovery Plan 2004-2008. Inland Fisheries Service, Hobart.

Nelson, M. (2004). Distribution of the Western Paragalaxias (*Paragalaxias julianus*) (Pisces: Galaxiidae) on the western Central Plateau, Tasmania. *Papers and Proceedings of the Royal Society of Tasmania* 138: 61-65