

NSW SCIENTIFIC COMMITTEE

Prasophyllum sp. Majors Creek (Jones 11084) (Orchidaceae)

Review of Current Information

January 2008

Current status:

Prasophyllum sp. Majors Creek is currently not listed under the Commonwealth legislation. The NSW Scientific Committee recently determined that *Prasophyllum* sp. Majors Creek meets criteria for listing as Critically Endangered in NSW under the *Threatened Species Conservation Act 1995* (TSC Act), based on information contained in this report and other information available for the species.

Species description:

There is currently no description available for this poorly known species although it is very similar to *P. caricetum*. A description for *P. caricetum* can be found in Jones (2000; 2006). *Prasophyllum* sp. Majors Creek is said to differ from this species by having smaller flowers, incurved petals, a smaller and narrower labellum, a smaller and narrower labellum callus, a narrower column, a narrower anther, curved column wings, and a very narrow hamulus on the pollinarium (NSW Scientific Committee 2002).

Taxonomy:

Prasophyllum sp. Majors Creek was originally included within a broad circumscription of *P. caricetum* which was described by Jones (2000). It is now believed that the taxon at Majors Creek is sufficiently different to warrant specific status (expert advice).

Distribution and number of populations:

Prasophyllum sp. Majors Creek has only ever been known from a single, small population approximately 70 km south-east of Canberra. No plants have been observed for approximately 13 years despite numerous searches in both the site and surrounding areas (expert advice 2008). It is thought that the species is probably now extinct and there is relatively little good quality habitat outside the confines of the known site (expert advice).

Ecology:

Very little is known about the ecology of *Prasophyllum* sp. Majors Creek.

Key habitat requirements

The habitat in the known site is a grassland dominated by *Themeda australis* and the substrate is a moist brown loamy soil (expert advice).

NSW SCIENTIFIC COMMITTEE

Life history

Most species of *Prasophyllum* are known to be very unreliable in terms of whether they flower each year (Bishop 2000), and the flowering time each season may also vary. Many species in the *Prasophyllum odoratum* complex (to which *Prasophyllum* sp. Majors Creek belongs) are known to flower in greater numbers in the season following a summer fire (Jones 2006).

Number of mature individuals:

The species has always been very rare with reports that approximately 10 plants were seen in the years that it was observed flowering (1992 and 1994: expert advice). Despite numerous searches since then, *Prasophyllum* sp. Majors Creek has not been observed for at least 13 years (expert advice 2008). It is quite possible that the species is now extinct, although the variability in flowering patterns of many species of *Prasophyllum* suggests a possibility that some plants may still exist as dormant underground tubers.

Threats:

It is thought that earthworks at the known site in 1995 may have contributed to the demise of *Prasophyllum* sp. Majors Creek (expert advice). Other threatening processes include mowing/slashing and trampling by visitors. Excessive collecting by orchid enthusiasts may also be a problem for some of the more conspicuous species.

Extreme fluctuations:

There is no evidence of extreme fluctuations in the population of *Prasophyllum* sp. Majors Creek. The species has declined in numbers but this is believed to be more a result of reduction due to a number of threatening processes rather than due to natural fluctuations.

Population reduction and continuing declines:

As stated above, *Prasophyllum* sp. Majors Creek has declined to the point where no plants have been observed for 13 years and the species is now quite possibly extinct.

Extent of Occurrence (EOO) & Area of Occupancy (AOO):

Prasophyllum sp. Majors Creek has only ever been observed at one location despite several searches in the broader area. Based on a 2 x 2 km grid, the spatial scale of assessment recommended by the IUCN (2008), the AOO is 4 km². In the case of *Prasophyllum* sp. Majors Creek the EOO and the AOO are the same.

Severe fragmentation:

The habitat of *Prasophyllum* sp. Majors Creek is likely to have undergone severe fragmentation as the district has been subject to extensive clearing and degradation of habitat.

ESTABLISHED UNDER THE THREATENED SPECIES CONSERVATION ACT 1995

Contact Address: C/o PO Box 1967 Hurstville BC NSW 1481 Telephone: (02) 9585 6940 Facsimile: (02) 9585 6989

NSW SCIENTIFIC COMMITTEE

It is likely that the species was once more widespread before its discovery in 1992. This can not be confirmed, however, as the species has only ever been recorded from a single locality.

References:

- Bishop T (2000) 'Field Guide to the Orchids of New South Wales and Victoria. 2nd edition.' (University of New South Wales Press: Sydney)
- IUCN (2008) 'Guidelines for using the IUCN Red List Categories and Criteria. Version 7.0.' (Standards and Petitions Working Group of the IUCN Species Survival Commission Biodiversity Assessments Sub-committee: Switzerland). (<http://intranet.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf>).
- Jones DL (2000) Ten new species of *Prasophyllum* R.Br. (Orchidaceae) from south-eastern Australia. *The Orchadian* **13**, 148-173.
- Jones DL (2006) 'A Complete Guide to Native Orchids of Australia including the Island Territories.' (Reed New Holland: Sydney).
- NSW Scientific Committee (2002) *Prasophyllum* sp. Majors Creek (a terrestrial orchid) - endangered species listing. Final Determination published by the NSW Scientific Committee.

Explanatory note

Between 2007 and 2009 the NSW Scientific Committee undertook a systematic review of the conservation status of a selection of plant and animal species listed under the Threatened Species Conservation Act. This species summary report provides a review of the information gathered on this species at the time the Review was undertaken.

The Scientific Committee's report on the Review of Schedules project and final determinations relating to species that were either delisted or had a change in conservation status can be found on the following website: www.environment.nsw.gov.au .

The Committee gratefully acknowledges the past and present Committee members and project officers who ably assisted the Committee in undertaking the Review of Schedules Project. Information on the people involved in the project can be found in the Acknowledgement section of the project report entitled "Review of the Schedules of the Threatened Species Conservation Act 1995. A summary report on the review of selected species" which is available on the abovementioned website.

This species summary report may be cited as:

NSW Scientific Committee (2008) *Prasophyllum* sp Majors Creek. Review of current information in NSW. January 2008. Unpublished report arising from the Review of the Schedules of the Threatened Species Conservation Act 1995. NSW Scientific Committee, Hurstville.