

NSW SCIENTIFIC COMMITTEE

Final Determination

The Scientific Committee, established by the *Threatened Species Conservation Act* 1995 (the Act), has made a Final Determination to list the shrub *Pomaderris cocoparrana* N.G. Walsh as an ENDANGERED SPECIES in Part 1 of Schedule 1 of the Act. Listing of Endangered species is provided for by Part 2 of the Act.

The Scientific Committee has found that:

1. *Pomaderris cocoparrana* N.G. Walsh (family Rhamnaceae) is described by Royal Botanic Gardens and Domain Trust PlantNET (2014) as: “Shrub 1–3 m high, stems rusty with short simple and stellate hairs. Leaves ovate to ± circular, 1–3 cm long, 8–15 mm wide, upper surface dark green, ± velvety with very short erect hairs; lower surface greyish with a short stellate-tomentum below longer appressed rusty simple hairs, secondary veins prominent with rusty simple hairs. Flowers yellow, in small terminal panicles. Sepals not persistent in fruit. Petals usually absent. Capsule and hypanthium covered with fine stellate tomentum below fine whitish scattered simple hairs.”
2. *Pomaderris cocoparrana* is endemic to New South Wales and mainly occurs in the Cocoparra Range, about 30 km northeast of Griffith, within the Cobar Peneplain and the NSW South Western Slopes Bioregions (*sensu* Thackway and Creswell 1995). There is an outlying population on private property north of Ardlethan, approximately 65 km to the east of the Cocoparra Range. Most populations of *P. cocoparrana* are within the Cocoparra National Park (NP) and Nature Reserve (NR). However its distribution may extend into adjoining State Forests and private land. *Pomaderris cocoparrana* occurs in rocky sites at higher altitudes within the Cocoparra Range (Royal Botanic Gardens and Domain Trust PlantNET 2014) and in creek lines and sheltered east and south-facing slopes (Egan 2014).
3. *Pomaderris cocoparrana* is a long-lived perennial shrub. Death and dieback of the leaves and upper stems of *P. cocoparrana* have been observed after drought (Egan 2011) but some plants have been observed to resprout at the base following rain (Egan 2014). *Pomaderris cocoparrana* individuals are killed by fire but may resprout if only partially burnt (Egan 2011). Little is known about the seed biology of this species. However it is likely to follow the pattern of many other *Pomaderris* species which have fire-promoted regeneration and then decline over a period of 20 years or so, with or without drought (N. Walsh *in litt.* June 2011). Mass recruitment of seedlings has been observed following a small bushfire in Cocoparra NP (Egan 2011) suggesting the presence of a soil seed bank that requires fire, or a similar disturbance, to promote germination. Surveys of *P. cocoparrana* in 1995/1996, 2010/2011 and 2014 have shown that the numbers of mature plants fluctuated greatly over a period of a decade (Egan 2011, 2014).
4. *Pomaderris cocoparrana* occurs throughout the Cocoparra Range. The population in the Cocoparra Range in 2014 was estimated to be fewer than 2000 mature individuals and these were spread throughout the known range from Ironbark Creek in the north to Mt Brogden in the south (Egan 2014). The population near Ardlethan had at least 100 individuals when it was surveyed in August 2010 (Egan 2011). However, fluctuations in the number of mature plants are likely due to environmental conditions, herbivore impact and time since the last fire. In addition, there may be some other areas of suitable habitat for the species that have not been sampled.

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5. The geographic distribution of *Pomaderris cocoparrana* is highly restricted. The extent of occurrence for *P. cocoparrana* is 786 km² based on a minimum convex polygon enclosing all mapped occurrences of the species, the method of assessment recommended by IUCN (2014). This estimate includes the disjunct population near Ardlethan. The area of occupancy (AOO) is estimated to be 80 km² based on 20 (2 x 2 km) grid cells, the scale recommended for assessing AOO by IUCN (2014).
6. The main threat to *Pomaderris cocoparrana* is from feral goats (Egan 2014). Adverse impacts of grazing of *P. cocoparrana* by feral goats are widespread within Cocoparra NP and NR (Egan 2014). Grazing is considered to limit seedling regeneration and the ability of plants to reach maturity (Egan 2014). Fallow Deer (*Dama dama*) have recently been detected in Cocoparra NP and may pose an additional potential threat (Egan 2014). An absence of fire may also be a threat to this species in the future as this may lead to the decline in both above ground plants and the soil seed bank. 'Competition and habitat degradation by Feral Goats, *Capra hircus* Linnaeus 1758' is listed as a Key Threatening Process under the Act.
7. *Pomaderris cocoparrana* N.G.Walsh is not eligible to be listed as a Critically Endangered species.
8. *Pomaderris cocoparrana* N.G.Walsh is eligible to be listed as an Endangered species as, in the opinion of the Scientific Committee, it is facing a very high risk of extinction in New South Wales in the near future as determined in accordance with the following criteria as prescribed by the *Threatened Species Conservation Regulation 2010*:

Clause 7 Restricted geographic distribution and other conditions

The geographic distribution of the species is estimated or inferred to be:

(b) highly restricted,

and:

- (d) a projected or continuing decline is observed, estimated or inferred in either of the key indicators:
 - (a) an index of abundance appropriate to the taxon, or
 - (b) the geographic distribution, habitat quality or diversity, or genetic diversity.

Dr Mark Eldridge
Chairperson
Scientific Committee

Exhibition period: 02/10/15 – 27/11/15

Proposed Gazettal date: 02/10/15

References:

- Egan D (2011) An assessment of the distribution and abundance of the Cocoparra *Pomaderris cocoparrana* in 2010/2011. Unpublished report, Griffith Area, NSW National Parks and Wildlife Service, Office of Environment and Heritage.
- Egan D (2014) A review of current *Pomaderris cocoparrana* status 2013–2014: distribution, threats and a preliminary assessment of nomination criteria for listing under the NSW

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TSC Act. Unpublished report, Griffith Area, NSW National Parks and Wildlife Service, Office of Environment and Heritage.

IUCN Standards and Petitions Subcommittee (2014) Guidelines for Using the IUCN Red List Categories and Criteria. Version 11. Prepared by the Standards and Petitions Subcommittee.

<http://www.iucnredlist.org/documents/RedListGuidelines.pdf>.

Royal Botanic Gardens and Domain Trust PlantNET (2014) – The Plant Information Network System of The Royal Botanic Gardens and Domain Trust, Sydney, Australia (version 2.0).

[http://plantnet.rbgsyd.nsw.gov.au/cgi-](http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Pomaderris~cocoparrana)

[bin/NSWfl.pl?page=nswfl&lvl=sp&name=Pomaderris~cocoparrana](http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Pomaderris~cocoparrana)

(Accessed August 2014)

Thackway R, Creswell ID (1995) An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program. Version 4.0. ANCA, Canberra.