

Approved Conservation Advice for *Commersonia rosea* (Sandy Hollow commersonia)

(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

This Conservation Advice has been developed based on the best available information at the time this Conservation Advice was approved; this includes existing and draft plans, records or management prescriptions for this species.

Description

Commersonia rosea (Sandy Hollow commersonia), family Malvaceae, is a perennial prostrate shrub that grows from 0.1–0.3 m high. The plant has trailing branches up to 60 cm long. The younger branches and leaves are hairy and the plant produces pink flowers with five petals (TSSC, 2008). Flowering has been recorded in August, November, January and February (Wilkins & Whitlock, 2011).

Following taxonomic revision, the name of this species is now *Androcalva rosea* (S.A.J.Bell & L.M.Copel.) C.F.Wilkins & Whitlock (Wilkins & Whitlock, 2011; CHAH, 2013).

Conservation Status

The Sandy Hollow commersonia is listed as endangered under the name *Commersonia rosea* (a plant). This species is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act) as it has a restricted geographic distribution with an estimated extent of occurrence of about 2000 km². The species' geographic distribution is precarious for its survival given the nature of ongoing threats (TSSC, 2008).

The species is also listed as endangered under the *Threatened Species Conservation Act 1995* (New South Wales).

Cultural Significance

The bark fibre of taller *Commersonia* spp. is used by Aboriginal people for fish and kangaroo netting (The Royal Botanic Gardens & Domain Trust, 2013).

Distribution and Habitat

The Sandy Hollow commersonia is known from six populations in the vicinity of Sandy Hollow in the upper Hunter Valley in New South Wales (Wilkins & Witlock, 2011). Four populations are located within an 8 km radius of Sandy Hollow, one population occurs several kilometres to the south-east of Sandy Hollow and one population occurs 80 km to the west in Goulburn River National Park (TSSC, 2008). The species is estimated to have a total population size of about 300 individuals (Copeland, 2006, pers. comm., cited in TSSC, 2008) with an extent of occurrence of 2000 km² (TSSC, 2008).

The Sandy Hollow commersonia occurs on skeletal sandy soils in scrub or heath with scattered emergent eucalypts and bottlebrush (*Callitris* spp.) (TSSC, 2008; Wilkins & Whitlock, 2011). The species is a fire-ephemeral and requires a suitable fire regime to germinate and produce flowers and seed (Bell, 2006, pers. comm., cited in TSSC, 2008). The species has a high rate of natural population fluctuation (TSSC, 2008).

This species occurs within the Sydney Basin IBRA Bioregion and the Hunter-Central Rivers Natural Resource Management Region. The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological community.

Threats

The main identified threats to the Sandy Hollow commersonia are vegetation clearance, inappropriate fire regimes, changes to land use, disturbance associated with road/track maintenance, stock grazing/trampling, browsing by goats (*Capra hircus*) and rabbits (*Oryctolagus cuniculus*), and prolonged drought (TSSC, 2008; OEH, 2013). A proposed open cut coal mine may impact the species through native vegetation clearance, dust pollution and altered hydrology (TSSC, 2008). The impact of these threats is increased by the restricted range and low population numbers of the species (TSSC, 2008).

Research Priorities

Research priorities that would inform future local priority actions include:

- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.
- Identify seed germination requirements and investigate management options to stimulate field regeneration.
- Identify optimal fire regimes for regeneration (seed germination and/or flowering), and response to other prevailing fire regimes.

Local Priority Actions

The following local priority recovery and threat abatement actions can be done to support the recovery of the Sandy Hollow commersonia:

Habitat Loss, Disturbance and Modification

- Monitor known populations to identify key threats.
- Control access routes to suitably constrain public access to known sites on public land.
- Suitably control and manage access on private land and other land tenure.
- Undertake survey work in suitable habitat and potential habitat to locate any additional occurrences.
- Minimise adverse impacts from land use at known sites, including pollution and altered hydrology associated with open-cut mines.
- Ensure there is no disturbance in areas where the Sandy Hollow commersonia occurs, excluding necessary actions to manage the conservation of the species.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate and/or secure inclusion in reserve tenure if possible.

Trampling, Browsing or Grazing

- Develop and implement a management plan for the control and eradication of rabbits and goats in the region.
- If livestock grazing occurs in the area, ensure land owners/managers use an appropriate management regime and density that does not detrimentally affect this species.
- Where appropriate, manage total grazing pressure at important sites through exclusion fencing or other barriers.

Fire

- Develop and implement a suitable fire management strategy for the habitat of the Sandy Hollow commersonia.

- Where appropriate provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plan/s, risk register and/or operation maps.

Conservation Information

- Raise awareness of the Sandy Hollow commersonia within the local community.
- Engage with private landholders and land managers responsible for the land on which populations occur and encourage these key stakeholders to contribute to the implementation of conservation management actions.
- Enable recovery of additional sites and/or populations.
- Undertake appropriate seed collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible.

This list does not necessarily encompass all actions that may be of benefit to the Sandy Hollow commersonia, but highlights those that are considered to be of highest priority at the time of preparing the Approved Conservation Advice.

Existing Plans/Management Prescriptions that are Relevant to the Species

- Threat abatement plans for competition and land degradation by feral goats (DEWHA, 2008a) and rabbits (DEWHA, 2008b).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

References

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Vallee L, Hogbin T, Monks L, Makinson B, Matthes M and Rossetto M (2004). *Guidelines for the translocation of threatened plants in Australia – second edition*. Canberra: Australian Network for Plant Conservation.

Wilkins CF and Whitlock BA (2011). A new Australian genus *Androcalva* separated from *Commersonia* (Malvaceae s.l. or Byttneriaceae). *Australian Systematic Botany* 24 (4–5): 284–349.