

This Conservation Advice was approved by the Minister on 29 September 2008

A statement for the purposes of approved Conservation Advice
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

Approved Conservation Advice for
***Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie**

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

Following taxonomic revision, the name of this species has changed and is listed under the EPBC Act as at 25 September 2013 as:

Helicteres macrothrix

Description

Helicteres sp. Glenluckie Creek (N.Byrnes 1280) Cowie, Family Sterculiaceae, is an erect multi-stemmed shrub growing to 40 cm; the growth form becomes more loose and open with age. Aerial parts of the plant are annual with perennial root stock. Leaves are elliptic to broadly ovate and light green, densely covered with stellate hairs. Flowers of this species are pink-purple, and the fruits are green and woolly-hairy. Flowering occurs in January, September and November. Individuals have been observed to resprout from perennial root stock, often vigorously after fire (Holmes et al., 2005; TSSC, 2006a; Woinarski et al., 2007).

Conservation Status

Helicteres sp. Glenluckie Creek (N.Byrnes 1280) Cowie is listed as **endangered**. This species is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, in 2006, the Minister considered the Threatened Species Scientific Committee's (TSSC) advice under section 189 of the EPBC Act and amended the list under section 184 to include *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie. The TSSC determined that this species met criterion 2 of their eligibility criteria (TSSC, 2006a). The species is also listed as endangered under the *Territory Parks and Wildlife Conservation Act 2000* (Northern Territory).

Distribution and Habitat

Helicteres sp. Glenluckie Creek (N.Byrnes 1280) Cowie is endemic to the Northern Territory (Briggs & Leigh, 1996). There are three populations, found near Mt Bundey, near Batchelor and Lake Bennett (Woinarski et al., 2007). This species has an extent of occurrence of 910 km² (Woinarski et al., 2007) and an area of occupancy of 0.40 km² (TSSC, 2006a). The estimated combined population size of the Glenluckie Creek and Lake Bennett populations is in the 100 000s, and the population from Mt Bundey numbers at least 700 individuals (TSSC, 2006a). One population of *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie is located partly within the proposed Mary River National Park (TSSC, 2006b). The species is found in open woodlands dominated by *Eucalyptus tectifera* or *E. miniata*, on sandy loam and on rocky siltstone slopes or granite (Holmes et al., 2005; Woinarski et al., 2007). This species occurs within the Northern Territory Natural Resource Management Region.

The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological communities.

Threats

The main identified threats to *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie are land clearing for development; and weed invasion by Gamba grass (*Andropogon gayanus*) and Mission grass (*Pennisetum polystachion*), which may alter fire frequency and intensity (TSSC, 2006a; Woinarski et al., 2007).

Research Priorities

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.

Regional and Local Priority Actions

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie.

Habitat Loss, Disturbance and Modification

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Identify populations of high conservation priority.
- Ensure infrastructure or development activities involving substrate or vegetation disturbance in areas where *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie occurs do not adversely impact on known populations.
- Minimise adverse impacts from land use at known sites.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

Invasive Weeds

- Develop and implement a management plan for the control of Gamba Grass and Mission Grass in the local region.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie.

Fire

- Develop and implement a suitable fire management strategy for *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie.
- Identify appropriate intensity and interval of fire to promote seed germination and vegetation regeneration.
- Provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

Conservation Information

- Raise awareness of *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie within the local community.

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 *Helicteres* sp. Glenluckie Creek (N.Byrnes 1280) Cowie, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

Existing Plans/Management Prescriptions that are Relevant to the Species

- Gamba Management Guide (NRETA, 2006), and
- Management of Mission Grass (Miller, 2006).

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

Information Sources:

Briggs, JD & Leigh, JH 1996, *Rare or Threatened Australian Plants rev. edition*, CSIRO Publishing, Collingwood.

Department of Natural Resources, Environment and the Arts (NRETA) 2006, *Gamba Management Guide*, Department of Natural Resources, Environment and the Arts, viewed 18 June 2008, <http://www.nt.gov.au/nreta/natres/weeds/ntweeds/gamba/pdf/gamba_mngt_guide.pdf>.

Holmes, J, Bisa, D, Hill, A & Crase, B 2005, *A Guide to Threatened, Near Threatened and Data Deficient Plants in the Litchfield Shire of the Northern Territory*, WWF-Australia, Sydney.

Miller, I 2006, *Management of mission grass*, Northern Territory Government, Darwin, Northern Territory, viewed 18 June 2008, <[https://transact.nt.gov.au/ebiz/dbird/TechPublications.nsf/6A1B37A1C6E610A8692571ED004CFAE3/\\$file/453.pdf?OpenElement](https://transact.nt.gov.au/ebiz/dbird/TechPublications.nsf/6A1B37A1C6E610A8692571ED004CFAE3/$file/453.pdf?OpenElement)>.

Threatened Species Scientific Committee (TSSC) 2006a, *Commonwealth Listing Advice on Helicteres sp. Glenluckie Creek*, Department of Environment, Water, Heritage, and the Arts, viewed 18 June 2008, <<http://www.environment.gov.au/biodiversity/threatened/species/pubs/helicteres-sp-glenluckie-ck-listing.pdf>>.

Threatened Species Scientific Committee (TSSC) 2006b, *Commonwealth Conservation Advice on Helicteres sp. Glenluckie Creek*, Department of Environment, Water, Heritage, and the Arts.

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M and Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia* (2nd ed.), Australian Network for Plant Conservation, Canberra.

Woinarski, J, Pavey, C, Kerrigan, R, Cowie, I, & Ward, S (eds) 2007, *Lost from our landscape: threatened species of the Northern Territory*, Northern Territory Government, Darwin.