

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

Approved Conservation Advice for
Archontophoenix myolensis (Myola Archontophoenix)

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved.

Description

Archontophoenix myolensis, Family Arecaceae, also known as Myola Archontophoenix, is a palm growing up to 20 m tall. It has a solitary, straight trunk up to 30 cm in diameter, which may be swollen at the base. The pinnate leaves are up to 4 m long with a slight lateral twist, and the leaf sheaths are blue-green in colour. The flowers are white/cream, and are held in erect, rigid inflorescences, which may become drooping when the tree is fruiting. Flowering occurs from May to July, and mature fruits have been observed from December to March (Dowe, 1993; Dowe & Hodel, 1994).

Conservation Status

Myola Archontophoenix 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, prior to the commencement of the EPBC Act, it was listed as endangered under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). This species is also listed as endangered under the *Nature Conservation Act 1992 (Nature Conservation (Wildlife) Regulation 2006)* (Queensland), and as vulnerable on the World Conservation Union's IUCN Red List of Threatened Species (Dowe, 1998).

Distribution and Habitat

Myola Archontophoenix is known from a site at Myola, on the Atherton Tableland in north-east Queensland. It occurs along creeks in rainforest at 350–400 m altitude on volcanic soils (Dowe & Hodel, 1994). It has been estimated that fewer than 100 mature palms remain, in a total area of less than 10 km² (Dowe, 2007), with approximately 50 per cent of all known individuals located on a small section of Warrill Creek. Other parts of Warrill Creek host another 25 per cent of the mature individuals, and the remaining 25 per cent are located on the banks of the Barron River (Environment North, 2006). This species occurs within the Wet Tropics (Queensland) 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 *Myola Archontophoenix* are habitat loss and degradation due to ongoing wood extraction; fire; industrial and urban development; pollution; weed invasion and human disturbance (Dowe, 1998). A small population on Sunday Island, in the Barron River, is also identified as prone to flood damage, with only juvenile plants present. Urbanisation has resulted in private properties surrounding the Warrill Creek populations, and some populations along the Barron River occur in unconserved areas (Environment North, 2006; Dowe, 2007).

A potential threat to the species is hydrological change, including dams and weirs placed on inhabited streams (Dowe, 2007).

Research Priorities

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

- Research into the reproductive biology, population demographics, and physiology of *Myola Archontophoenix* (Dowe, 2007).

Regional and Local Priority Actions

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of *Myola Archontophoenix*.

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.
- Manage any changes to hydrology that may result in changes to water table levels, increased run-off, sedimentation or pollution.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to *Myola Archontophoenix*, using appropriate methods.

Enable Recovery of Additional Sites and/or Populations

- 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.
- Environment North (2006) recommended planting *Myola Archontophoenix* as widely as possible on other creeks and dams in the Kuranda area, and phasing out the planting of other species of *Archontophoenix* along the Barron River, in favour of planting *Myola Archontophoenix* in all potentially suitable habitats.

This list does not necessarily encompass all actions that may be of benefit to *Myola Archontophoenix*, 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

- Mareeba Shire Planning Scheme (MSC, 2004), and
- Nature Conservation (Protected Areas) Amendment Regulation (No. 1) 2006, Schedule 5, part 197 *Myola Palm Nature Refuge* (Qld. Govt, 2006).

Information sources:

Dowe, JL 1993, 'Archontophoenix', *Palms & Cycads*, vol. 39, pp. 2-11.

Dowe, JL 1998, *Archontophoenix myolensis*, 2007 IUCN Red List of Threatened Species, viewed 06 December 2007, <<http://www.iucnredlist.org/>>.

Dowe, JL 2007, 'Notes on Endangered and Vulnerable Queensland Palms', *Palms & Cycads*, vol. 95, pp. 8-16.

Dowe, JL & Hodel, DR 1994, 'A Revision of *Archontophoenix* H. Wendl. & Drude (Arecaceae)', *Austrobaileya*, vol. 4, pp. 227-244.

Environment North 2006, *Myola Planning Study, Environmental Analysis Report Addendum (Data Gaps)*, Environment North, North Cairns, Queensland.

Mareeba Shire Council (MSC) 2004, *The Mareeba Shire Planning Scheme*, viewed 11 March 2008, <[http://www.msc.qld.gov.au/images/stories/IPA_Docs/Planning%20Scheme%20\(Including%20Amendment%20No%201%20of%202007\).pdf](http://www.msc.qld.gov.au/images/stories/IPA_Docs/Planning%20Scheme%20(Including%20Amendment%20No%201%20of%202007).pdf)>.

Queensland Government (Qld. Govt.) 2006, *Nature Conservation (Protected Areas) Amendment Regulation (No. 1) 2006*, viewed 11 March 2008, <<http://www.legislation.qld.gov.au/LEGISLTN/SLS/2006/06SL116.pdf>>.

This conservation advice was approved by the Minister / Delegate of the Minister on: 26/3/2008

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia - Second Edition*, Australian Network for Plant Conservation, Canberra.