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

Approved Conservation Advice for *Logania diffusa*

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.

Description

Logania diffusa, Family Loganiaceae, is a diffuse shrub 0.3–1 m high with spreading branches. Leaves are often on short lateral shoots, appearing crowded, more or less lacking a stalk. Leaf blades are narrowly linear, 15–25 mm long, 1–1.2 mm wide, 15–25 times longer than wide, moderately to densely hairy on the lower surface, hairless above. Leaf margins are rolled downwards so that only the midrib is visible on the lower surface. This species has separate male and female plants. Inflorescences are 5–10 flowered on male plants and 1–5 flowered on females. The corolla is white, 1.5–2 mm long, tubular for a third of its length. The fruit is dry, cylindrical to egg-shaped, 2.7–3 mm long, 2.2–2.3 mm wide. Flowering usually occurs in March to September, fruiting in January (Conn, 1995; Conn & Brown, 1996).

Conservation Status

Logania diffusa is listed as **vulnerable**. This species is eligible for listing as vulnerable 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 vulnerable under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). The species is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland).

Distribution and Habitat

Logania diffusa is known from the Blackdown Tableland, central-eastern Queensland. Total population size is unknown and this species is reserved in Blackdown Tableland National Park (Briggs & Leigh, 1996). Henderson (1985) noted that he had not collected *L. diffusa* during his surveys of the Blackdown Tableland in 1971 and 1973, suggesting that the species might be relatively uncommon. The species was recorded as common at a site on the Peregrine Lookout walking track when collected in 1993 (BRI collection records, n.d.).

At Blackdown Tableland, *Logania diffusa* occurs on the top of the plateau escarpment in heathland dominated by *Banksia oblongifolia* and *Leptospermum* spp. and in open forest with *Eucalyptus* spp. and Forest Sheoak (*Allocasuarina torulosa*) in shallow, sandy, often stony soil overlying sandstone (Conn & Brown, 1996). This species occurs within the Fitzroy (Queensland) Natural Resource Management Region.

Threats

The main potential threats to *L. diffusa* include altered fire regimes and grazing pressure (ANRA, 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 previous known populations and 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 *L. diffusa*.

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.
- Control access routes to suitably constrain public access to known sites.
- Minimise adverse impacts from land use at known sites.
- Ensure road widening and maintenance activities (or other infrastructure or development activities) involving substrate or vegetation disturbance in areas where *L. diffusa* occurs do not adversely impact on known populations.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on *L. diffusa*.

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to *L. diffusa*, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to the species, using appropriate methods.

Trampling, Browsing or Grazing

- Prevent grazing pressure at known sites through exclusion fencing or other barriers.

Fire

- Develop and implement a suitable fire management strategy for *L. diffusa*.
- Identify appropriate intensity and interval of fire to promote seed germination.
- 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 *L. diffusa* 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 *L. diffusa*, 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

- Management Program for Protected Plants in Queensland 2006–2010 (EPA, 2006), and

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

Information Sources:

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