

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

**Approved Conservation Advice for**  
***Comesperma oblongatum* (Byfield Matchstick)**

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

**Description**

*Comesperma oblongatum*, Family Polygalaceae, also known as Byfield Matchstick, is a low shrub with crowded, blunt, oblong leaves. It flowers mainly between June and August, sometimes extending into September, and has dense inflorescences of dark pink to purple pea-like flowers. The species is heavily modified by wind-pruning (Pedley, 1984), growing to only about 0.5 m in exposed sites. Specimens from more sheltered areas are reported growing up to 1 m tall.

**Conservation Status**

Byfield Matchstick 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). Byfield Matchstick is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland).

**Distribution and Habitat**

Byfield Matchstick is endemic to coastal central Queensland and has been recorded from a relatively low number of collections from north-east of Rockhampton to south of Gladstone, within the Fitzroy Natural Resource Management Region. Plants have been recorded from near Byfield, within Byfield and Castle Tower National Parks. Additionally, the species has been recorded from two state forests near Calliope and several populations are known from the Shoalwater Bay Military Training Area (Pollock, 1997).

Byfield Matchstick occupies a range of habitats, usually on rocky outcrops or exposed headlands in gravelly or sandy soils. It is known from tall *Leptospermum* shrublands and from lowland scrub dominated by *Allocasuarina littoralis*, *Banksia robur*, *Acacia julifera* and *Grevillea banksii*. It has also been collected from heathland dominated by *Banksia*, *Acrotriche aggregata*, *Brachyloma daphnoides*, *Jacksonia scoparia* and *Xanthorrhoea latifolia* and from *Themeda triandra* grassland (Pollock, 1997).

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

**Threats**

The main identified threats to Byfield Matchstick are its restricted distribution; broad scale vegetation clearing; inappropriate fire regimes; and fragmentation (Australian Natural Resources Atlas, 2007).

The main potential threats to Byfield Matchstick include activities occurring at Shoalwater Bay Military Training Area that pose a risk to plant populations. These threats include damage from vehicles, chemical spills, fires started on live-firing exercises on firing ranges and possible contamination of the water catchment. However, most of these threats are rated as having a low risk. Weeds identified as potential problems in the Training Area include

Rubber Vine (*Cryptostegia grandiflora*), Lantana (*Lantana camara*) and Parthenium (*Parthenium hysterophorus*) (Department of Defence, 2006).

### **Research Priorities**

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

- Design and implement a monitoring program.

### **Regional Priority Actions**

The following regional priority recovery and threat abatement actions can be done to support the recovery of Byfield Matchstick.

#### **Habitat Loss, Disturbance and Modification**

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of Byfield Matchstick.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on Byfield Matchstick.
- 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**

- Develop and implement a management plan for the control of weeds, including Rubber Vine, Lantana and Parthenium, in the local region.

#### **Fire**

- Develop and implement a suitable fire management strategy for Byfield Matchstick. The response of this species to fire is not well understood, but too frequent hot fires may be damaging to populations (Pollock, 1997).
- 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.

#### **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.

### **Local Priority Actions**

The following local priority recovery and threat abatement actions can be done to support the recovery of Byfield Matchstick.

#### **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.
- Control access routes to suitably constrain public access to known sites on public land.
- Suitably control and manage access on private land.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.

- Minimise adverse impacts from land use at known sites.
- Ensure road widening and maintenance activities (or other infrastructure or development activities as appropriate) in areas where Byfield Matchstick occurs do not adversely impact on known populations.
- Protect populations of Byfield Matchstick through the development of conservation agreements and/or covenants.

#### Fire

- Implement an appropriate fire management regime for local populations.

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

- The Central Queensland Strategy for Sustainability – 2004 and Beyond (Fitzroy Basin Association, 2006).

#### **Information Sources:**

Australian Natural Resources Atlas 2007, *Biodiversity Assessment - Central Mackay Coast, Species at risk and the Threatening Process*, Canberra, viewed 11 March 2008,

<<http://www.anra.gov.au/topics/vegetation/assessment/qld/ibra-cmc-species-threats.html>>.

Department of Defence 2006, *Talisman Sabre 2007 Public Environment Report*, Maunsell Aecom, Melbourne.

Fitzroy Basin Association 2006, *Central Queensland Strategy for Sustainability – 2004 and Beyond*, Fitzroy Basin Association, Rockhampton.

Pedley, L 1984, 'A revision of *Comesperma* (Polygalaceae) in Queensland', *Austrobaileya*, vol. 2, no. 1, pp. 7–14.

Pollock, AB 1997, '*Comesperma oblongatum*', in *Flora and Fauna Information System—Species Management Manual*, vol. 3, Queensland Department of Natural Resources, Brisbane.

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