

## ***Hibiscus brennanii* (a shrub)**

### **Conservation status**

AUSTRALIA: Vulnerable

NORTHERN TERRITORY: Vulnerable

### **Target for 2025:**

1. A robust monitoring program demonstrates that the population is stable or increasing over at least three successive monitoring periods.

### **Key management prescriptions:**

1. Ensure no repeat incidence of high intensity fires at intervals <5 years across its range.

### **Key research needed to enhance management effectiveness:**

1. More intensive study to detail life history characteristics and responses to a range of fire management regimes; and thence modelling to predict viability under a range of regimes.  
2. Assess options for establishment of an ex situ population, and effective propagation protocols.

### **Recommended monitoring to chart management effectiveness:**

#### *Indirect monitoring parameter(s)*

1. Annual assessment of fire metrics across known range.

#### *Direct monitoring parameter(s)*

1. Counts of total number of individuals and age structure, at 2-3 year intervals.

### **Is there an existing management standard operating plan or protocol?**

No standard management plan, but the species is broadly included within the Stone Country fire plan (Petty *et al.* 2007).

### **Is there an existing monitoring standard operating protocol?**

Kerrigan (2003, 2004) described a standard monitoring protocol.

### **Distribution**

Total range *Hibiscus brennanii* is endemic to the Northern territory, where it is restricted to the Baroalba Creek, Mt Brockman area (Craven and Fryxall 1993).

Kakadu Only known from the Baroalba Creek area, where Kerrigan (2003, 2004) reported it from an extent of occurrence of 1.5 km<sup>2</sup>.

% Kakadu 100%

### **Habitat**

- Stone Country
- lowland woodlands
- rainforest
- rivers, wetlands
- floodplain
- marine and estuaries

### Particular habitat requirements

### **Ecology**

This species occurs on sandstone cliffs, in gullies and on broken sandstone pavements.

### **Impacts of fire**

How fire affects the species Not well known. Recurrent fire at intervals of <5 years is likely to lead to local extirpation (Cowie and Liddle 2014); but long-term fire exclusion may also be detrimental.

Preferred fire regime Probably infrequent fine-scale low intensity fire.

### **Impacts of feral animals**

No known impact

### **Impacts of weeds**

No current known impact

### **Impacts of other threatening processes**

Disease Not known or likely

Climate change Not known or likely

Exploitation Nil

### **Estimate of population size in Kakadu**

441 (Kerrigan 2003, 2004)

### **Population trends in Kakadu (post 2005)**

- strongly increasing
- increasing
- stable
- decreasing
- severely decreasing
- not known

### **Current monitoring programs**

Baseline for monitoring established by Kerrigan (2003, 2004), but not subsequently re-sampled.