

# DELINEATION of IMPORTANT HABITATS of THREATENED PLANT SPECIES in SOUTH-EASTERN NEW SOUTH WALES



RESEARCH REPORT  
to the  
Australian Heritage Commission

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**Leptospermum thompsonii** J. Thompson

Family: Myrtaceae

**Conservation Status:** Vulnerable (Code 2V/N/55)



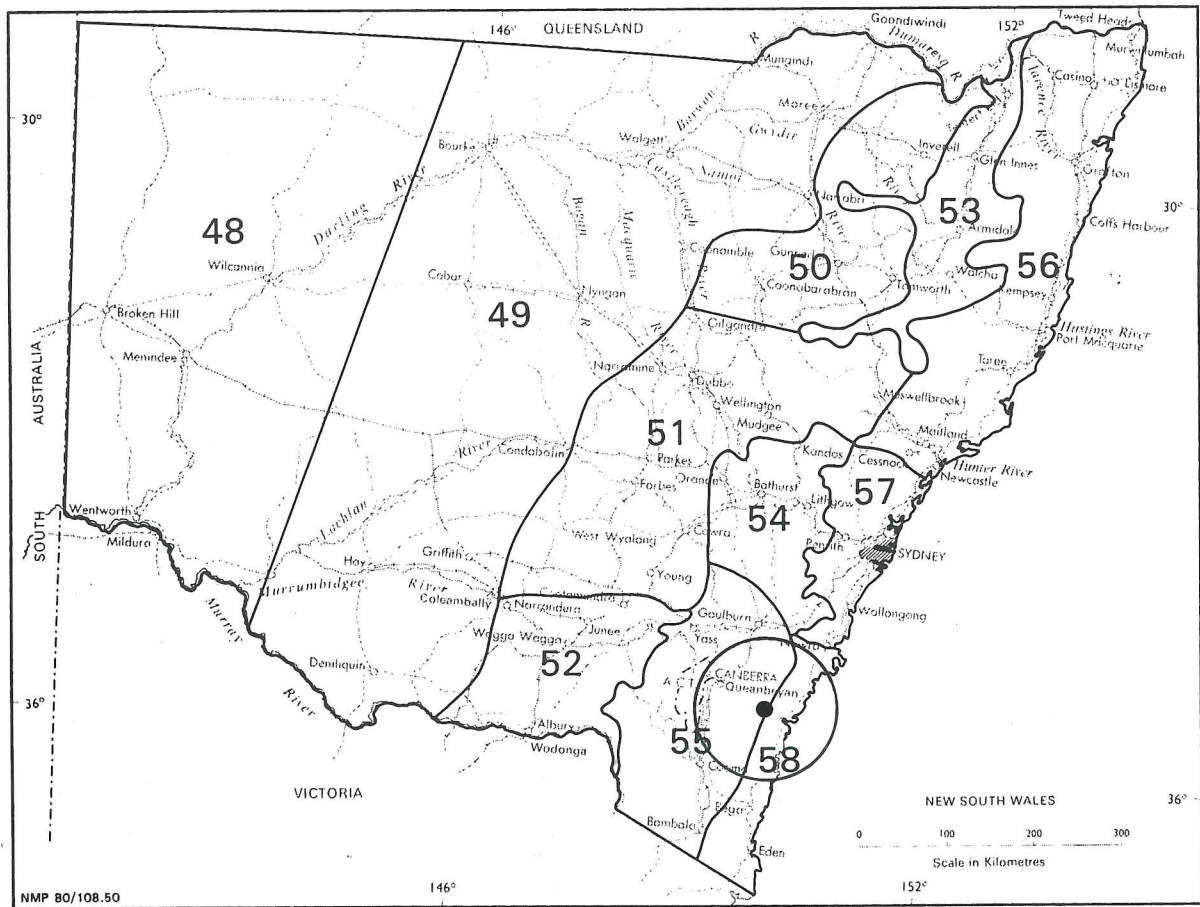
*Leptospermum thompsonii* in fruit.

### **Description**

Tall, usually slender but occasionally bushy, erect shrub to 6 m high with flaky rough bark. *Leaves* alternate on very short stalks about 1 mm long, rather densely crowded on the branchlets, broad-elliptic to obovate, 10-15 mm long and 4-6 mm wide, the tip slightly incurved and rapidly tapered to a somewhat pungent point, almost hairless. *Flowers* white, about 15 mm in diameter and borne singly on modified short terminal shoots. The petals are 4-6 mm long and the sepals are broadly ovate, about 3 mm long, are persistent in fruit and are densely covered with long spreading hairs. *Fruits* are hemispherical, woody capsules 9-10 mm in diameter which are densely hairy on their lower half and are surmounted by 4 or 5 valves forming a shallow dome with a deeply depressed centre. The fruits persist unopened on plants for several years.

**Flowering:** December-January.

## Distribution of *Leptospermum thompsonii*





NOTE: This taxon was listed in Briggs and Leigh (1988) as *Leptospermum* sp. 4 (sp. "7"; Clyde Mountain) but has since been formally described as *L. thompsonii* by Thompson (1989).



In most situations *L.thompsonii* forms a slender erect shrub and grows in dense thickets as seen in this photo. The edge of this stand has been exposed through bulldozing of part of the stand occurring on the road easement.

### Distribution

Known only from near the top of the escarpment near Clyde Mountain east of Mongo on the New South Wales Southern Tablelands (Thompson, 1989 and pers. comm.). In the time available during this survey only two populations were located and the known geographic range of the species is only 1.3 km. Unsuccessful searches were also made of several similar habitats in the vicinity of Monga to the south-west of the known sites and also

in the area to the north-west of the known sites. It will be surprising, however, if additional populations are not eventually found in this hilly, poorly accessible terrain.

### **Habitat Summary**

*Leptospermum thompsonii* grows in dark grey to black sandy or silty loams along creeks and in permanently wet seepage areas. It occurs in essentially pure stands in either dense, wet-heath or sphagnum bog communities or as an understorey in eucalypt open-forest.

### **Threats Summary**

The known occurrences of *L. thompsonii* are highly localised and occur in State Forest close to a major highway. The species is thus vulnerable to both roadworks and forestry activity.

### **Reservation**

About 40 plants at Site 2 north of the Kings Highway may be just within the southern boundary of Budawang National Park but it is not clear from the 1:25,000 map sheet exactly where the park boundary is at that site.

### **Cultivation**

This species may have some potential in horticulture, particularly as a screening plant. Limited trials by J.D.B. indicate that it is frost hardy in Canberra and reasonably fast growing. Plantings by J.D.B. on the New South Wales South Coast (near Batemans Bay) have formed dense shrubs 2 m high in 2 years. The species is readily propagated from seed but may also strike from cuttings. A total of 6 plants originating from one individual are in cultivation at the Australian National Botanic Gardens, Canberra (M. Richardson, pers. comm.).

### **Recommendations Summary**

The Australian Heritage Commission should alert the Department of Main Roads and the New South Wales Forestry Commission to the occurrences of this species. Known stands should be formally protected either within a flora reserve or a nature reserve as the species is currently very poorly reserved, if at all. Further searches for the species are necessary as several possible sites have not yet been checked. Searches for this species will be slow and difficult because it occurs in hilly terrain with dense, sometimes almost impenetrable, undergrowth. The two known sites have been nominated for inclusion on the Register of the National Estate.



## SITE DETAILS

### Site 1 - Clyde Mountain East

**Latitude and Longitude:** 35° 33' 13", 149° 56' 50".

**Altitude:** 750-760 m.

**Location:** In a relatively narrow band along the creek running parallel to and on the south side of the Kings Highway between 2.1 and 2.5 km east of the Monga turn off. The nominated site is encompassed by straight lines joining the Monga 1:25,000 map sheet grid reference points 67006135-67006145-67476165-67556150-67256115-67006135. (See map page 118).

**Land Status:** Buckenbowra State Forest and road reserve.

**Area:** 5 ha.

**Population:** An estimated 3000 mature plants and at least several hundred seedlings near the road verge. As the species grows in dense thickets it is difficult to make precise counts.

#### Habitat

**Soil:** Black silty loam.

**Substrate:** Sandstone/metamorphosed sediments.

**Topography:** Drainage lines of gentle to moderate slope in hilly terrain.

**Aspect:** South-east and north-west to north.

**Vegetation:** Forming almost pure stands in a wet heath community which includes *Gleichenia microphylla*, *Epacris impressa*, *Baeckea utilis*, *Lomandra longifolia*, *Banksia palludosa* and *Acacia rubida*. There is a sharp transition from the heath community to surrounding *Eucalyptus fastigata* - *E. radiata* - *E. sieberi* tall open-forest.



Looking west across wet heath to the dense stand of *L. thompsonii* (the tall dense shrubs adjacent to the eucalypt open-forest) growing along the drainage line at Site 1.

**Threats:** Much of this population abuts the Kings Highway and would be seriously affected by any widening or re-routing of the road to the south of the existing alignment. Some of the stand on the road easement at the eastern end of the site has been bulldozed in recent years but is regenerating vigorously. Part of the original population at this site was obviously destroyed when the highway was constructed as mature plants of *L. thompsonii* occur on both sides of the road.





A section of the *L. thompsonii* stand at Site 1 adjacent to the south side of the Kings Highway. The vigorous regeneration of the species visible in the foreground follows past bulldozing of a strip of vegetation along the southern road easement.

**Recommendations:** The Department of Main Roads should be advised by the Australian Heritage Commission of the occurrence of the species at this site and requested to plan maintenance and any future upgrading of the highway with due consideration for protection of the species.

**Survey Dates:** 3/8/87 and 26/8/88.

**Voucher Specimens:** J.D.B. Nos. 2251 and 2347.



### Site 2 - Clyde Mountain West

**Latitude and Longitude:** (range) 35° 33' 02", 149° 56' 17" to 35° 33' 43", 149° 56' 30".

**Altitude:** 720-780 m.

**Location:** In a creek which meets the Kings Highway 1 km east of the turn off to Monga and extending at least 400 m upstream. Another population occurs at the head of the same creek and extends for at least 500 m downstream. The intervening 400 m of creek line between these two occurrences was not walked to confirm the presence of *L. thompsonii* but there is every indication that the population is essentially continuous along this section of creek. The nominated area includes the entire section of this part of the creek and is defined by straight lines joining the Monga 1:25,000 map sheet 8826-1-N grid reference points 66336190-66506190-66656120-66906100-66906050-66676055-66556090-66456105-66336190. (See map page 118).

**Land Status:** The site is essentially equally divided between Monga and Buckenbowra State Forests with a very small section occurring on road reserve and possibly in national park.

**Area:** ca. 6 ha.

**Population:** An estimated 5,000+ mature plants. The species often grows in dense thickets and it is difficult to make precise counts.

#### **Habitat**

**Soil:** Black silty loam.

**Substrate:** Sandstone/metamorphosed sediments.

**Topography:** Drainage line on gentle to moderately steep slopes in hilly terrain.

**Aspect:** North and north-west.

**Vegetation:** Forming almost pure dense stands in either sphagnum bog including *Baeckea utilis*, *Gleichenia microphylla*, *Banksia palludosa* and *Lepidosperma* sp. or as an understorey in *Eucalyptus radiata* open-forest.

**Threats:** The northern section of this site is subject to a similar threat from roadworks as was discussed for Site 1. Part of this site runs through open-forest and could be affected should an intensive logging operation occur in the adjacent forest.

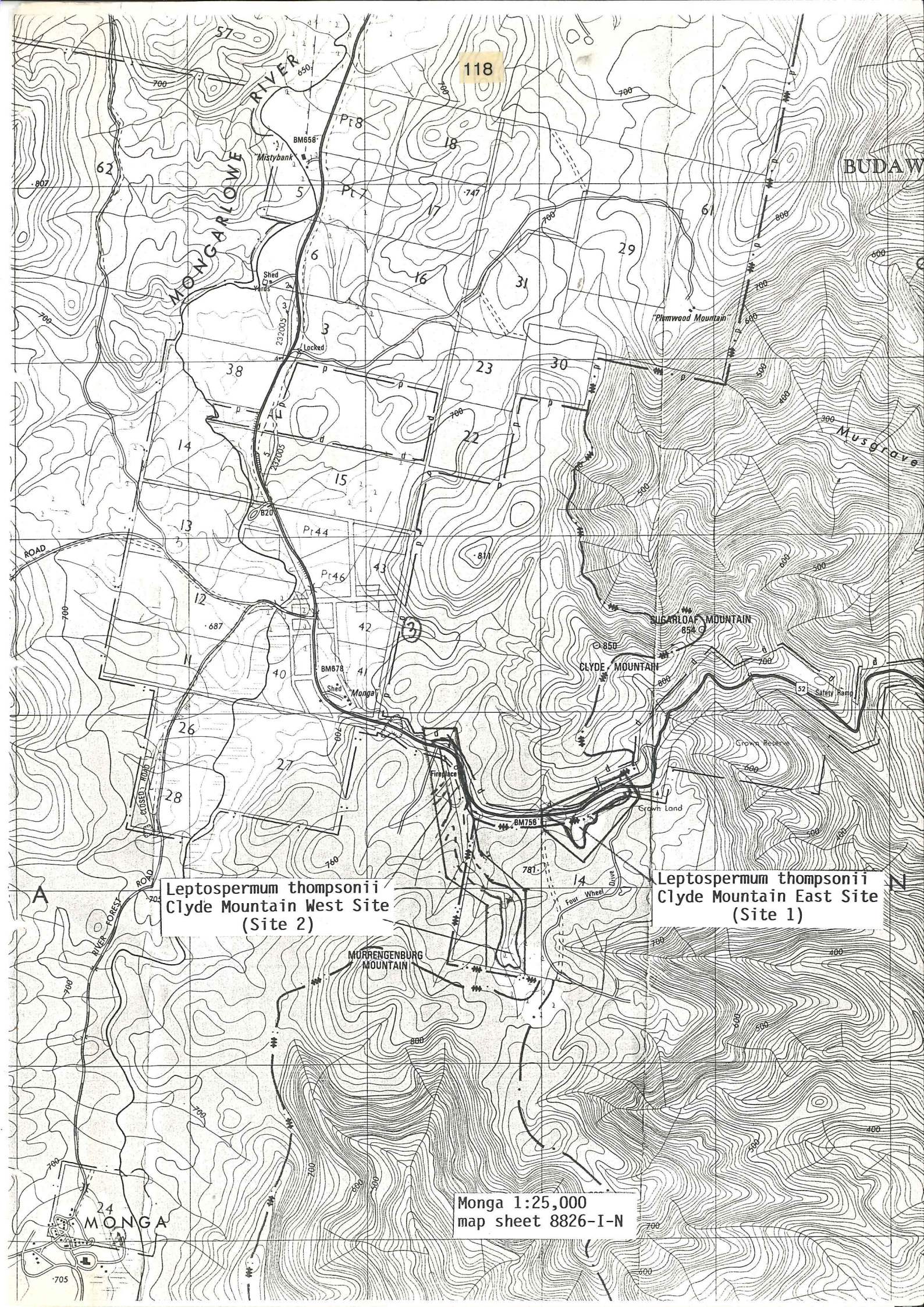
**Recommendations:** As well as that detailed for Site 1 the New South Wales Forestry Commission should be advised of the occurrence of this species and

asked to consider habitat protection for *L. thompsonii* if proposing any logging operations in the area.

**Survey Date:** 26/8/88.

**Voucher Specimens:** J.D.B. Nos. 2348 and 2353.





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**Leptospermum thompsonii**  
**Clyde Mountain West Site**  
**(Site 2)**

**Leptospermum thompsonii**  
**Clyde Mountain East Site**  
**(Site 1)**

**Monga 1:25,000**  
**map sheet 8826-I-N**

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