

Supplementary material for

Landscape management of the mahogany glider (*Petaurus gracilis*) across its distribution: subpopulations and corridor priorities

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Table S1. Summary of corridors assessed within each of the 10 subpopulations. See Figure 1 for the location of subpopulations and corridors.

Corridor No.	Subpopulation	Location	Priority	Total Length (km)	Gaps >30 m	Combined Gap Length (m)	Survey Sites
1	Girramay	Murray River - lower	Medium	19.64	9	1,109	2
2	Girramay	Murray River - west	Medium	8.16	1	98	2
3	Girramay	Murray River - upper	Medium	14.06	9	679	3
4	Girramay	Murray River - Jumbun	Low	4.13	3	805	1
5	Girramay	Barrett's Lagoon	Medium	5.61	3	544	2
6	Girramay	Bedfords	Medium	1.25	0	0	0
7	Girramay	Corduoy Creek - west	Medium	1.22	1	53	2
8	Girramay	Corduoy Creek	Medium	8.69	2	423	2
9	Girramay	Bilyana	Medium	6.38	4	311	1
10	Girramay	Appleyard	Low	4.82	2	247	0
11	Girramay	Kennedy	High	4.93	2	369	1
12	Girramay	Deep Creek	High	4.22	0	0	2
13	Girramay	Dallachy Creek	Medium	5.99	3	256	4
14	Girramay	Dallachy Airstrip	High	1.49	2	999	4
15	Girramay	Whitfield Creek	High	5.25	0	0	6
16	Girramay and Cardwell Lowlands	Meunga - Lily Creek	High	9.95	7	1,028	7
17	Cardwell Lowlands	Ellerbeck west	Medium	5.9	0	0	2
18	Cardwell Lowlands	7 Sisters	Medium	9.61	3	191	0
19	Cardwell Lowlands	Cardwell Township	High	2.71	4	1,556	5
20	Cardwell Lowlands	Newman - Blady Grass Creeks	Medium	2.25	3	103	2
21	Cardwell Lowlands	Blady Grass Creek	Medium	2.46	1	89	1

22	Cardwell Lowlands	Conn Creek Spur	High	2.33	1	57	0
23	Broadwater	Gowrie	Medium	8.5	6	598	2
24	Broadwater	Elphinstone	Medium	11.65	1	206	0
25	Broadwater	Dalrymple	Medium	15.23	0	0	4
26	Broadwater	Mount Hawkins Foothills	Medium	12.1	3	169	0
27	Broadwater	Ripple Creek	Medium	1.46	1	49	0
28	Lannercost-Henrietta	Mount Farquarson (George Creek)	Medium	1.91	0	0	1
29	Lannercost-Henrietta	Lannercost State Forest (Lannercost Creek)	Medium	30.46	2	90	9
30	Lannercost-Henrietta and Wharps Holding-Paluma Range	Stone River (Venable Crossing - Sandy Creek)	High	28.26	20	1,898	11
31	Lannercost-Henrietta	Stone River - west	Medium	3.77	1	56	0
32	Wharps Holding-Paluma Range	Upper Stone River	High	15.06	5	301	3
33	Wharps Holding-Paluma Range and Halifax Bay	Toobanna - Cattle Creek	High	27.71	3	1,540	6
34	Wharps Holding-Paluma Range	Helen's Hill - Wharps	High	10.57	10	4,376	4
35	Wharps Holding-Paluma Range	Helen's Hill - Mt Poverty	Medium	3.74	4	1,043	0
36	Wharps Holding-Paluma Range and Halifax Bay	Helen's Hill (Leichhardt Creek)	High	14.38	0	0	6
37	Wharps Holding-Paluma Range	Helen's Hill (Waterview Creek)	High	1.15	0	0	0
38	Wharps Holding-Paluma Range	Allendale Creek	Medium	2.14	2	327	1
39	Wharps Holding-Paluma Range	Jourama Falls	Medium	0.91	0	0	0
40	Wharps Holding-Paluma Range	Bambaroo Foothills	Medium	8.35	3	206	0
41	Wharps Holding-Paluma Range	Bambaroo School	Medium	6.79	6	1,860	3
42	Wharps Holding-Paluma Range	Byabra Creek	Medium	5.37	5	778	1
43	Wharps Holding-Paluma Range	Moongobulla Area (Crystal Creek)	Medium	9.5	1	30	1
44	Wharps Holding-Paluma Range	Mutarnee Creek	Medium	2.11	1	115	0
45	Wharps Holding-Paluma Range	Moongobulla area (Little Crystal Creek)	High	5.51	2	183	3
46	Wharps Holding-Paluma Range	Moongobulla (Ollera Creek)	Medium	4.86	0	0	5
47	Wharps Holding-Paluma Range	Moongobulla Area (coastal link)	Medium	6.49	1	57	2
48	Upper Tully	Dingo Pocket	Low	19.65	15	2,306	0
49	Hull Heads	Mission Beach	Low	11.36	5	683	0
50	Hull Heads	Hull River	Low	14.61	5	227	0
51	Halifax Bay	Orient (Mungulla)	Low	14.31	13	1,888	0
52	Halifax Bay	Orient	Low	12.04	11	747	0
53	Rollingstone	Moongobulla Area (Hencamp Creek)	Medium	2.14	0	0	2
54	Rollingstone	Moongobulla Area (Rollingstone Creek)	Medium	7.41	0	0	2
55	Rollingstone	Moongobulla Area (upper Rollingstone Creek)	Medium	3.38	1	131	0
Average				8.25	3.4	523.3	2.1

Table S2. List of plant species recommended for planting along corridors. Derived from Jackson (1998; 2001).

Scientific Name	Common Name	Flowering Time	Ref.
<i>Acacia crassicaarpa</i> *	Brown Salwood	October-December (arils)	1,2,3
<i>Acacia flavescens</i> *	Wattle	October-November (arils)	1
<i>Acacia mangium</i> *	Wattle	October-January (arils)	1
<i>Albizia procera</i> *	Albizia	All year -sap	1
<i>Corymbia clarksoniana</i> *	Clarkson's Bloodwood	March-May	1,2,3,4
<i>Corymbia dallachiana</i>	Bloodwood	November-April	2,4
<i>Corymbia intermedia</i> *	Pink Bloodwood	November-April	1,2,3,5,6
<i>Corymbia tessellaris</i> *	Moreton Bay Ash	November-January	1,2,3,4,6
<i>Corymbia torelliana</i> *	Cadagi	July-November	1,4,6
<i>Eucalyptus portuensis</i>	Yellow Stringybark	October-February	1,2
<i>Eucalyptus drepanophylla</i>	Narrow-leaved Ironbark	November-July	1
<i>Eucalyptus pellita</i> *	Red Mahogany	January-March	1,3
<i>Eucalyptus platyphylla</i> *	Poplar Gum	September-October	1
<i>Eucalyptus tereticornis</i> *	Blue Gum	June-September	1,3
<i>Melaleuca dealbata</i> *	Cloudy Tea-tree	September-November	1,2,3
<i>Melaleuca leucadendra</i> *	Long-leaved Paper Bark	June-July	1,2
<i>Melaleuca nervosa</i>	Paper bark / Tea-tree	May-September	2,7,8
<i>Melaleuca quinquenervia</i>	Coastal Tea-tree	May-July	2
<i>Melaleuca viridiflora</i> *	Broad-leaved Tea-tree	Jan.-Feb and May-Jul.	1

* known food tree species.

1 Jackson, pers. obs.; 2 James Cook University, Townsville plant records; 3 Van Dyck 1993; 4 Hill and Johnson 1995; 5 Williams 1979; 6 Brooker & Kleinig 1994; 7 Tweddell 1982; 8 Williams 1984.

References

- Brooker, M. I. H., and Kleinig, D. A. (1994). 'Field Guide to Eucalypts. Volume 3. Northern Australia.' (Inkata Press: Melbourne.)
- Hill, K. D., and Johnson, L. A. S. (1995). Systematic studies in the eucalypts. 7. A revision of the bloodwoods, genus *Corymbia* (Myrtaceae). *Telopea* **6**, 185–504.
- Tweddell, P. D. (1982). Selected studies in *Melaleuca viridiflora* Sol. Ex. Gaetrn., and *M. quinquenervia* (Cav.) S.T. Blake, with special reference to *M. leucadendron* (L.) L., *M. nervosa* (Lindl.) Cheel, and *M. argentea* W.V. Fitzg. B.Sc.(Honours) Thesis. James Cook University, Townsville, Qld.
- Van Dyck, S. (1993). The taxonomy and distribution of *Petaurus gracilis* (Marsupialia: Petauridae), with notes on its ecology and conservation status. *Memoirs of the Queensland Museum* **33**, 77–122.
- Williams, K. A. W. (1979). 'Native Plants of Queensland. Volume 1.' (Privately published: Ipswich, Queensland.)
- Williams, K. A. W. (1984). 'Native Plants of Queensland. Volume 2'. (privately published: Ipswich, Queensland.)