CLARKE DOWDLE & ASSOCIATES

DEVELOPMENT CONSULTANTS

SURVEYORS • PLANNERS • ECOLOGISTS • BUSHFIRE CONSULTANTS

ABN 15 114 156 740

Wayne C. Dowdle **B.SURV. Postal Address:**
REGISTERED SURVEYOR NSW (M.I.S)
Anthony W.G.Clarke **B.SURV.** (Hons Class 11)
REGISTERED SURVEYOR NSW (M.I.S)

Brett A.B. Williams **B.SURV.** Ass. Dip.Eng (Civil)
REGISTERED SURVEYOR NSW

Kristan T. Dowdle **B.ENV.SC**. (Environmental Management)
Grad. Dip. (Design in Bushfire Prone Areas) M.F.P.A.A
Associate:
Paul DeFina **B.APP.SC**. (Environmental Planning)

PO Box 3122, Umina Beach NSW 2257
Ph: (02) 4344 3553 Fax: (02) 4344 6636

EMAIL: admin@cdasurveys.com.au
WEBSITE: www.cdasurveys.com.au

Office Address: 1 Oscar Street UMINA BEACH NSW 2257

APPENDIX- THREATENED SPECIES ASSESSMENT

Local Environmental Study

At

PACIFIC HIGHWAY, BULADELAH, NSW (LOT 3 IN DP 1120817 AND LOT 100 IN DP 1139447)

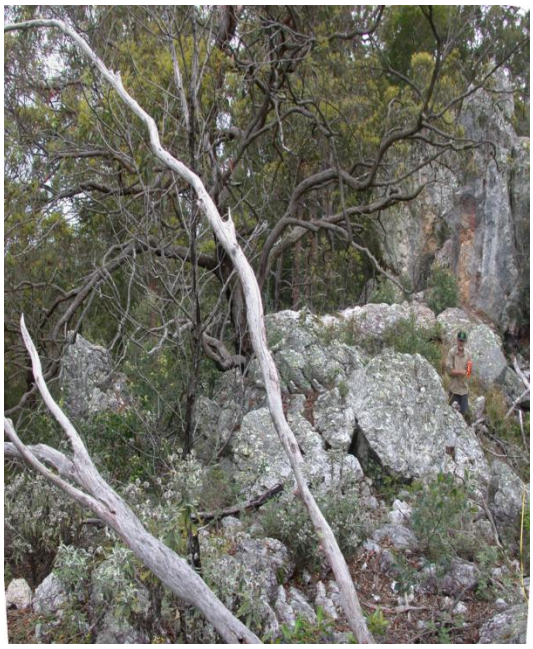
CONTENTS

APPENDIX 1 – QUADRAT SITE DATA

BLOCK	SITE	EASTING	NORTHING	HABITAT
STAGE 1	BULF1	427157	6415197	Coastal Plain
STAGE 1	BULF2	427103	6415222	Coastal Plain
STAGE 1	BULF3	427062	6415194	Coastal Plain
STAGE 1	RPBULSL1	427276	6415171	Lower Slope
STAGE 1	ALUMMTN1	426836	6414369	Summit
STAGE 1	ALUMSLO1	427521	6414074	Lower Slope
STAGE 1	ALUMMTN2	428918	6414022	Summit
STAGE 1	FRYSCK1	427449	6415465	Riparian
STAGE 1	FRYSCK2	427445	6415194	Riparian
STATE FOREST	BULST2SL1	427768	6416015	Lower Slope
BLOCK 2	BULST2SL2	427427	6415631	Lower Slope
BLOCK 2	BULST2SL3	427393	6414919	Lower Slope
BLOCK 2	BULST2SL4	427205	6414642	Lower Slope
BLOCK 3	BULST2SL5	426901	6414886	Lower Slope
BLOCK 1	BULST2SL6	427422	6415316	Lower Slope
BLOCK 4	BULST2US1	427270	6414063	Upper Slope
BLOCK 4	BULST2US2	427351	6413632	Upper Slope
STATE FOREST	BULST2US3	427179	6413581	Upper Slope
BLOCK 3	BULST2US4	427060	6414198	Upper Slope
BLOCK 3	BULST2US5	426925	6414315	Upper Slope
BLOCK 3	BULST2US6	426797	6414748	Upper Slope
STATE FOREST	BULST2SU1	426997	6413608	Summit
BLOCK 3	BULST2SU2	426790	6414556	Summit
BLOCK 2	BULST2HS	427474	6414681	Hanging Swamp
BLOCK 1	BULST2EEC	427557	6416234	Swamp Sclerophyll Forest

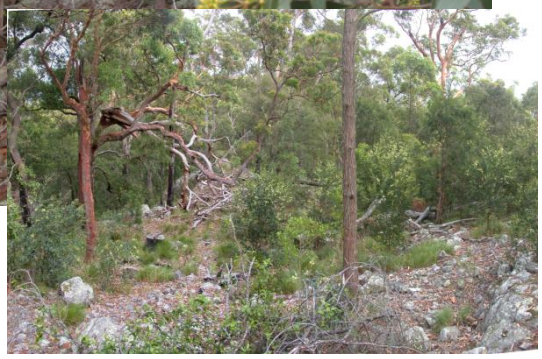
APPENDIX 2 –SITE IMAGES

ALUMMTN1 SUMMIT



ALUMMTN2 SUMMIT

BULST2SU1 SUMMIT



BULST2SU2 SUMMIT

BULST2US1 UPPER SLOPE

BULST2US2 UPPER SLOPE

BULST2US3 UPPER SLOPE

BULST2US4 UPPER SLOPE

BULST2US5 UPPER SLOPE

BULST2US6 UPPER SLOPE

BULST2SL1 LOWER SLOPE

BULST2SL2 LOWER SLOPE

BULST2SL3 LOWER SLOPE

BULST2SL4 LOWER SLOPE

BULST2SL5 LOWER SLOPE

BULST2EEC SWAMP SCLEROPHYLL FOREST

BULST2HS HANGING SWAMP

APPENDIX 3 – PLANT SPECIES LIST FROM QUADRAT & TRANSECT SURVEYS

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
3769	Fabaceae (Mimosoideae)	*Acacia elongata*	1
3771	Fabaceae (Mimosoideae)	*Acacia falcata*	3
3777	Fabaceae (Mimosoideae)	*Acacia floribunda*	3
6472	Fabaceae (Mimosoideae)	*Acacia irrorata subsp. irrorata*	1
3816	Fabaceae (Mimosoideae)	*Acacia longifolia*	13
3817	Fabaceae (Mimosoideae)	*Acacia longissima*	1
3834	Fabaceae (Mimosoideae)	*Acacia myrtifolia*	3
3885	Fabaceae (Mimosoideae)	*Acacia terminalis*	1
3893	Fabaceae (Mimosoideae)	*Acacia ulicifolia*	3
4353	Orchidaceae	*Acianthus fornicatus*	1
3968	Myrtaceae	*Acmena smithii*	2
1094	Apiaceae	*Actinotus helianthi*	1
7997	Adiantaceae	*Adiantum aethiopicum*	2
2012	Casuarinaceae	*Allocasuarina littoralis*	9
2017	Casuarinaceae	*Allocasuarina torulosa*	12
7686	Rhamnaceae	*Alphitonia excelsa*	1
Amye	Loranthaceae	*Amyema spp.*	2
2206	Commelinaceae	*Aneilema acuminatum*	1
3970	Myrtaceae	*Angophora costata*	18
4749	Poaceae	*Anisopogon avenaceus*	1
2266	Cunoniaceae	*Aphanopetalum resinosum*	1
4774	Poaceae	*Aristida warburgii*	2
5345	Proteaceae	*Banksia oblongifolia*	2
5347	Proteaceae	*Banksia robur*	1
5349	Proteaceae	*Banksia spinulosa*	6
2299	Cyperaceae	*Baumea juncea*	1
2302	Cyperaceae	*Baumea rubiginosa*	2
4671	Pittosporaceae	*Billardiera scandens*	11
3528	Blandfordiaceae	*Blandfordia grandiflora*	1
8052	Blechnaceae	*Blechnum cartilagineum*	3
8057	Blechnaceae	*Blechnum indicum*	1
5750	Rutaceae	*Boronia pinnata*	8
5751	Rutaceae	*Boronia polygalifolia*	5
2695	Euphorbiaceae	*Breynia oblongifolia*	4
3533	Colchicaceae	*Burchardia umbellata*	1

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
4673	Pittosporaceae	*Bursaria longisepala*	2
2270	Cunoniaceae	*Callicoma serratifolia*	2
4010	Myrtaceae	*Callistemon pachyphyllus*	1
4015	Myrtaceae	*Callistemon salignus*	5
8341	Dicksoniaceae	*Calochlaena dubia*	7
Care	Cyperaceae	*Carex spp.*	1
3467	Lauraceae	*Cassytha glabella*	2
3469	Lauraceae	*Cassytha pubescens*	1
Casy	Lauraceae	*Cassytha spp.*	2
6281	Vitaceae	*Cayratia clematidea*	5
Chei	Adiantaceae	*Cheilanthes spp.*	1
6285	Vitaceae	*Cissus opaca*	2
6864	Poaceae	*Cleistochloa rigida*	1
Clem	Ranunculaceae	*Clematis spp.*	1
2209	Commelinaceae	*Commelina cyanea*	1
8801	Rutaceae	*Correa reflexa var. reflexa*	1
9687	Myrtaceae	*Corymbia gummifera*	2
2242	Crassulaceae	*Crassula sieberiana*	1
4419	Orchidaceae	*Cymbidium suave*	2
3172	Goodeniaceae	*Dampiera purpurea*	3
10647	Davalliaceae	*Davallia solida var. pyxidata*	1
2827	Fabaceae (Faboideae)	*Daviesia ulicifolia*	2
4435	Orchidaceae	*Dendrobium teretifolium*	1
2834	Fabaceae (Faboideae)	*Desmodium brachypodum*	1
Desm	Fabaceae (Faboideae)	*Desmodium spp.*	1
2840	Fabaceae (Faboideae)	*Desmodium varians*	7
3540	Phormiaceae	*Dianella caerulea*	6
6700	Phormiaceae	*Dianella caerulea var. caerulea*	4
7337	Phormiaceae	*Dianella caerulea var. producta*	9
11904	Fabaceae (Faboideae)	*Dillwynia retorta species complex*	7
6446	Dioscoreaceae	*Dioscorea transversa*	5
5911	Sapindaceae	*Dodonaea triquetra*	7
8064	Blechnaceae	*Doodia aspera*	1
2556	Droseraceae	*Drosera auriculata*	1
2559	Droseraceae	*Drosera peltata*	1
2574	Elaeocarpaceae	*Elaeocarpus reticulatus*	1
4946	Poaceae	*Entolasia marginata*	2
4947	Poaceae	*Entolasia stricta*	16
2599	Epacridaceae	*Epacris microphylla*	1
2605	Epacridaceae	*Epacris pulchella*	3
8599	Myrtaceae	*Eucalyptus carnea*	2
4087	Myrtaceae	*Eucalyptus eugenioides*	6
8355	Myrtaceae	*Eucalyptus fergusonii subsp. fergusonii*	1
4128	Myrtaceae	*Eucalyptus microcorys*	13
4155	Myrtaceae	*Eucalyptus pilularis*	7

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
4156	Myrtaceae	*Eucalyptus piperita*	11
4162	Myrtaceae	*Eucalyptus propinqua*	3
8694	Myrtaceae	*Eucalyptus resinifera subsp. hemilampra*	8
4171	Myrtaceae	*Eucalyptus robusta*	3
4177	Myrtaceae	*Eucalyptus saligna*	1
6015	Luzuriagaceae	*Eustrephus latifolius*	7
5860	Santalaceae	*Exocarpos cupressiformis*	1
7479	Moraceae	*Ficus coronata*	1
3924	Moraceae	*Ficus rubiginosa*	1
2431	Cyperaceae	*Gahnia aspera*	1
2432	Cyperaceae	*Gahnia clarkei*	6
2441	Cyperaceae	*Gahnia radula*	2
2442	Cyperaceae	*Gahnia sieberiana*	1
Gahn	Cyperaceae	*Gahnia spp.*	1
6016	Luzuriagaceae	*Geitonoplesium cymosum*	8
6708	Gleicheniaceae	*Gleichenia microphylla*	1
7866	Euphorbiaceae	*Glochidion ferdinandi*	7
2860	Fabaceae (Faboideae)	*Glycine clandestina*	3
2868	Fabaceae (Faboideae)	*Gompholobium pinnatum*	1
Gomp	Fabaceae (Faboideae)	*Gompholobium spp.*	1
3247	Haloragaceae	*Gonocarpus tetragynus*	8
3248	Haloragaceae	*Gonocarpus teucrioides*	1
3188	Goodeniaceae	*Goodenia hederacea*	4
3190	Goodeniaceae	*Goodenia heterophylla*	1
8755	Goodeniaceae	*Goodenia heterophylla subsp. eglandulosa*	4
7057	Goodeniaceae	*Goodenia paniculata*	3
1195	Araceae	*Gymnostachys anceps*	2
3236	Haemodoraceae	*Haemodorum planifolium*	1
5409	Proteaceae	*Hakea dactyloides*	3
2873	Fabaceae (Faboideae)	*Hardenbergia violacea*	4
1492	Asteraceae	*Helichrysum elatum*	1
2527	Dilleniaceae	*Hibbertia aspera*	3
2528	Dilleniaceae	*Hibbertia bracteata*	1
2532	Dilleniaceae	*Hibbertia dentata*	8
10863	Dilleniaceae	*Hibbertia empetrifolia subsp. empetrifolia*	8
2542	Dilleniaceae	*Hibbertia obtusifolia*	2
2548	Dilleniaceae	*Hibbertia scandens*	5
8877	Malvaceae	*Hibiscus heterophyllus subsp. heterophyllus*	2
6266	Violaceae	*Hybanthus monopetalus*	1
1126	Apiaceae	*Hydrocotyle geraniifolia*	1
1128	Apiaceae	*Hydrocotyle laxiflora*	1
8511	Poaceae	*Imperata cylindrica var. major*	14
2448	Cyperaceae	*Isolepis cernua*	1
2898	Fabaceae (Faboideae)	*Kennedia rubicunda*	5
9175	Sterculiaceae	*Lasiopetalum ferrugineum var. cordatum*	1

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
9008	Sterculiaceae	*Lasiopetalum ferrugineum var. ferrugineum*	1
11102	Dryopteridaceae	*Lastreopsis microsora subsp. microsora*	1
8379	Cyperaceae	*Lepidosperma elatius*	1
2465	Cyperaceae	*Lepidosperma filiforme*	2
6402	Cyperaceae	*Lepidosperma laterale*	3
2470	Cyperaceae	*Lepidosperma longitudinale*	1
2471	Cyperaceae	*Lepidosperma neesii*	1
2475	Cyperaceae	*Lepidosperma urophorum*	1
4221	Myrtaceae	*Leptospermum juniperinum*	1
4230	Myrtaceae	*Leptospermum myrtifolium*	1
9080	Myrtaceae	*Leptospermum polyanthum*	2
7245	Myrtaceae	*Leptospermum polygalifolium*	9
8199	Myrtaceae	*Leptospermum polygalifolium subsp. cismontanum*	2
6406	Lindsaeaceae	*Lindsaea linearis*	8
6401	Lindsaeaceae	*Lindsaea microphylla*	1
7709	Lomandraceae	*Lomandra confertifolia subsp. pallida*	5
6304	Lomandraceae	*Lomandra glauca*	2
6308	Lomandraceae	*Lomandra longifolia*	11
8802	Lomandraceae	*Lomandra multiflora subsp. multiflora*	2
6312	Lomandraceae	*Lomandra obliqua*	8
5445	Proteaceae	*Lomatia silaifolia*	1
4242	Myrtaceae	*Lophostemon confertus*	2
2035	Celastraceae	*Maytenus silvestris*	1
4257	Myrtaceae	*Melaleuca linariifolia*	2
4258	Myrtaceae	*Melaleuca nodosa*	2
4261	Myrtaceae	*Melaleuca sieberi*	5
4266	Myrtaceae	*Melaleuca thymifolia*	2
2938	Fabaceae (Faboideae)	*Mirbelia rubiifolia*	1
2649	Epacridaceae	*Monotoca scoparia*	1
6860	Rubiaceae	*Morinda jasminoides*	2
11953	Myrsinaceae	*Myrsine variabilis*	3
4318	Oleaceae	*Notelaea longifolia*	3
4321	Oleaceae	*Notelaea ovata*	4
5044	Poaceae	*Oplismenus aemulus*	6
4624	Oxalidaceae	*Oxalis radicosa*	1
1740	Bignoniaceae	*Pandorea pandorana*	1
5066	Poaceae	*Panicum simile*	2
1185	Apocynaceae	*Parsonsia straminea*	2
4642	Passifloraceae	*Passiflora cinnabarina*	1
3300	Iridaceae	*Patersonia fragilis*	1
3301	Iridaceae	*Patersonia glabrata*	3
3303	Iridaceae	*Patersonia sericea*	2
5462	Proteaceae	*Persoonia levis*	5
5463	Proteaceae	*Persoonia linearis*	9

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
8216	Euphorbiaceae	*Phyllanthus hirtellus*	4
2958	Fabaceae (Faboideae)	*Phyllota phylicoides*	1
6182	Thymelaeaceae	*Pimelea linifolia*	2
4683	Pittosporaceae	*Pittosporum revolutum*	2
4685	Pittosporaceae	*Pittosporum undulatum*	1
3393	Lamiaceae	*Plectranthus argentatus*	4
3397	Lamiaceae	*Plectranthus parviflorus*	1
9912	Fabaceae (Faboideae)	*Podolobium ilicifolium*	4
2231	Convolvulaceae	*Polymeria calycina*	1
1211	Araliaceae	*Polyscias sambucifolia*	8
5703	Rubiaceae	*Pomax umbellata*	1
1925	Lobeliaceae	*Pratia purpurascens*	3
3413	Lamiaceae	*Prostanthera incisa*	1
1010	Acanthaceae	*Pseuderanthemum variabile*	5
6403	Dennstaedtiaceae	*Pteridium esculentum*	14
8956	Cyperaceae	*Ptilothrix deusta*	5
3002	Fabaceae (Faboideae)	*Pultenaea linophylla*	2
3004	Fabaceae (Faboideae)	*Pultenaea myrtoides*	5
3014	Fabaceae (Faboideae)	*Pultenaea retusa*	4
3023	Fabaceae (Faboideae)	*Pultenaea villosa*	5
8163	Polypodiaceae	*Pyrrosia rupestris*	2
11236	Rosaceae	*Rubus moluccanus var. trilobus*	3
5642	Rosaceae	*Rubus parvifolius*	5
1667	Asteraceae	*Senecio linearifolius*	1
Sene	Asteraceae	*Senecio spp.*	1
7592	Smilacaceae	*Smilax australis*	2
6022	Smilacaceae	*Smilax glyciphylla*	5
8428	Menispermaceae	*Stephania japonica var. discolor*	2
6688	Myrtaceae	*Syncarpia glomulifera*	3
11178	Meliaceae	*Synoum glandulosum subsp. glandulosum*	1
7201	Myrtaceae	*Syzygium oleosum*	1
6214	Tremandraceae	*Tetratheca thymifolia*	2
5219	Poaceae	*Themeda australis*	10
3574	Anthericaceae	*Thysanotus tuberosus*	1
1157	Apiaceae	*Trachymene procumbens*	1
10560	Ulmaceae	*Trema tomentosa var. viridis*	1
7355	Anthericaceae	*Tricoryne elatior*	3
1244	Asclepiadaceae	*Tylophora paniculata*	2
7433	Asteraceae	*Vernonia cinerea*	1
6270	Violaceae	*Viola betonicifolia*	1
2664	Epacridaceae	*Woollsia pungens*	5
8771	Xanthorrhoeaceae	*Xanthorrhoea fulva*	1
8770	Xanthorrhoeaceae	*Xanthorrhoea latifolia*	1
9309	Xanthorrhoeaceae	*Xanthorrhoea latifolia subsp. latifolia*	5
6318	Xanthorrhoeaceae	*Xanthorrhoea macronema*	1

Native Species List With Frequencies (Quadrat)			
CAPS Number	**Family**	**Display Name**	**Freq**
8843	Xanthorrhoeaceae	*Xanthorrhoea malacophylla*	3
1162	Apiaceae	*Xanthosia pilosa*	4
1163	Apiaceae	*Xanthosia tridentata*	1
Xyri	Xyridaceae	*Xyris spp.*	1

Native Species List With Frequencies (Transect)			
CAPS Number	**Family**	**Display Name**	**Freq**
3771	Fabaceae (Mimosoideae)	*Acacia falcata*	1
3774	Fabaceae (Mimosoideae)	*Acacia fimbriata*	1
3794	Fabaceae (Mimosoideae)	*Acacia irrorata*	1
3814	Fabaceae (Mimosoideae)	*Acacia linifolia*	2
3816	Fabaceae (Mimosoideae)	*Acacia longifolia*	2
3817	Fabaceae (Mimosoideae)	*Acacia longissima*	2
3893	Fabaceae (Mimosoideae)	*Acacia ulicifolia*	1
3968	Myrtaceae	*Acmena smithii*	1
7997	Adiantaceae	*Adiantum aethiopicum*	2
8000	Adiantaceae	*Adiantum hispidulum*	4
11044	Sapindaceae	*Alectryon coriaceous*	1
2012	Casuarinaceae	*Allocasuarina littoralis*	2
2017	Casuarinaceae	*Allocasuarina torulosa*	2
7686	Rhamnaceae	*Alphitonia excelsa*	1
6340	Zingiberaceae	*Alpinia caerulea*	1
3970	Myrtaceae	*Angophora costata*	2
4749	Poaceae	*Anisopogon avenaceus*	2
2266	Cunoniaceae	*Aphanopetalum resinosum*	2
4774	Poaceae	*Aristida warburgii*	1
10423	Aspleniaceae	*Asplenium australasicum forma australasicum*	1
8033	Aspleniaceae	*Asplenium flabellifolium*	1
2585	Epacridaceae	*Astroloma pinifolium*	1
5345	Proteaceae	*Banksia oblongifolia*	1
5347	Proteaceae	*Banksia robur*	1
5349	Proteaceae	*Banksia spinulosa*	1
2302	Cyperaceae	*Baumea rubiginosa*	2
4671	Pittosporaceae	*Billardiera scandens*	1
8051	Blechnaceae	*Blechnum camfieldii*	1
8052	Blechnaceae	*Blechnum cartilagineum*	5
8057	Blechnaceae	*Blechnum indicum*	2
8063	Blechnaceae	*Blechnum wattsii*	2

Native Species List With Frequencies (Transect)			
CAPS Number	**Family**	**Display Name**	**Freq**
5750	Rutaceae	*Boronia pinnata*	2
5751	Rutaceae	*Boronia polygalifolia*	1
2695	Euphorbiaceae	*Breynia oblongifolia*	3
4674	Pittosporaceae	*Bursaria spinosa*	1
5314	Portulacaceae	*Calandrinia pickeringii*	2
2269	Cunoniaceae	*Caldcluvia paniculosa*	1
2270	Cunoniaceae	*Callicoma serratifolia*	3
4010	Myrtaceae	*Callistemon pachyphyllus*	1
4015	Myrtaceae	*Callistemon salignus*	1
8341	Dicksoniaceae	*Calochlaena dubia*	4
8855	Cyperaceae	*Carex maculata*	2
Care	Cyperaceae	*Carex spp.*	2
6281	Vitaceae	*Cayratia clematidea*	3
Chei	Adiantaceae	*Cheilanthes spp.*	1
2344	Cyperaceae	*Chorizandra cymbaria*	1
8188	Thelypteridaceae	*Christella dentata*	1
6282	Vitaceae	*Cissus antarctica*	1
6285	Vitaceae	*Cissus opaca*	1
6864	Poaceae	*Cleistochloa rigida*	1
Clem	Ranunculaceae	*Clematis spp.*	1
5253	Polygalaceae	*Comesperma ericinum*	2
2209	Commelinaceae	*Commelina cyanea*	2
9976	Proteaceae	*Conospermum ericifolium*	1
8079	Cyatheaceae	*Cyathea leichhardtiana*	2
3174	Goodeniaceae	*Dampiera stricta*	1
4856	Poaceae	*Danthonia linkii*	1
3911	Monimiaceae	*Daphnandra micrantha*	1
1109	Apiaceae	*Daucus glochidiatus*	1
10647	Davalliaceae	*Davallia solida var. pyxidata*	2
2827	Fabaceae (Faboideae)	*Daviesia ulicifolia*	1
4432	Orchidaceae	*Dendrobium speciosum*	1
2834	Fabaceae (Faboideae)	*Desmodium brachypodum*	3
3540	Phormiaceae	*Dianella caerulea*	2
6700	Phormiaceae	*Dianella caerulea var. caerulea*	4
7337	Phormiaceae	*Dianella caerulea var. producta*	2
3542	Phormiaceae	*Dianella revoluta*	2
11904	Fabaceae (Faboideae)	*Dillwynia retorta species complex*	1
6446	Dioscoreaceae	*Dioscorea transversa*	4
2562	Ebenaceae	*Diospyros australis*	1
5911	Sapindaceae	*Dodonaea triquetra*	4
8064	Blechnaceae	*Doodia aspera*	4
2556	Droseraceae	*Drosera auriculata*	1
4934	Poaceae	*Echinopogon ovatus*	1
3959	Myrsinaceae	*Embelia australiana*	1
5532	Restionaceae	*Empodisma minus*	1

Native Species List With Frequencies (Transect)			
CAPS Number	**Family**	**Display Name**	**Freq**
4946	Poaceae	*Entolasia marginata*	1
4947	Poaceae	*Entolasia stricta*	4
2605	Epacridaceae	*Epacris pulchella*	1
8599	Myrtaceae	*Eucalyptus carnea*	1
4128	Myrtaceae	*Eucalyptus microcorys*	3
4155	Myrtaceae	*Eucalyptus pilularis*	2
4171	Myrtaceae	*Eucalyptus robusta*	2
6015	Luzuriagaceae	*Eustrephus latifolius*	2
7479	Moraceae	*Ficus coronata*	2
3924	Moraceae	*Ficus rubiginosa*	2
2432	Cyperaceae	*Gahnia clarkei*	5
2441	Cyperaceae	*Gahnia radula*	1
2442	Cyperaceae	*Gahnia sieberiana*	1
6016	Luzuriagaceae	*Geitonoplesium cymosum*	5
Gera	Geraniaceae	*Geranium spp.*	2
6708	Gleicheniaceae	*Gleichenia microphylla*	1
7866	Euphorbiaceae	*Glochidion ferdinandi*	4
2860	Fabaceae (Faboideae)	*Glycine clandestina*	3
3243	Haloragaceae	*Gonocarpus micranthus*	1
3247	Haloragaceae	*Gonocarpus tetragynus*	2
3248	Haloragaceae	*Gonocarpus teucrioides*	1
8755	Goodeniaceae	*Goodenia heterophylla subsp. eglandulosa*	3
3192	Goodeniaceae	*Goodenia ovata*	1
7057	Goodeniaceae	*Goodenia paniculata*	2
Good	Goodeniaceae	*Goodenia spp.*	1
1195	Araceae	*Gymnostachys anceps*	3
3236	Haemodoraceae	*Haemodorum planifolium*	1
5409	Proteaceae	*Hakea dactyloides*	1
2873	Fabaceae (Faboideae)	*Hardenbergia violacea*	4
1492	Asteraceae	*Helichrysum elatum*	2
2532	Dilleniaceae	*Hibbertia dentata*	2
2542	Dilleniaceae	*Hibbertia obtusifolia*	1
2548	Dilleniaceae	*Hibbertia scandens*	3
Hibb	Dilleniaceae	*Hibbertia spp.*	1
8877	Malvaceae	*Hibiscus heterophyllus subsp. heterophyllus*	1
11947	Euphorbiaceae	*Homalanthus populifolius*	1
7240	Clusiaceae	*Hypericum gramineum*	1
8511	Poaceae	*Imperata cylindrica var. major*	3
2882	Fabaceae (Faboideae)	*Indigofera australis*	2
3340	Juncaceae	*Juncus planifolius*	1
2898	Fabaceae (Faboideae)	*Kennedia rubicunda*	2
6139	Sterculiaceae	*Lasiopetalum ferrugineum*	1
11102	Dryopteridaceae	*Lastreopsis microsora subsp. microsora*	1
2470	Cyperaceae	*Lepidosperma longitudinale*	1
2471	Cyperaceae	*Lepidosperma neesii*	2

Native Species List With Frequencies (Transect)			
CAPS Number	**Family**	**Display Name**	**Freq**
9080	Myrtaceae	*Leptospermum polyanthum*	1
7245	Myrtaceae	*Leptospermum polygalifolium*	4
8199	Myrtaceae	*Leptospermum polygalifolium subsp. cismontanum*	1
2616	Epacridaceae	*Leucopogon ericoides*	1
6406	Lindsaeaceae	*Lindsaea linearis*	1
6401	Lindsaeaceae	*Lindsaea microphylla*	2
4469	Orchidaceae	*Liparis reflexa*	1
7709	Lomandraceae	*Lomandra confertifolia subsp. pallida*	2
6308	Lomandraceae	*Lomandra longifolia*	7
6312	Lomandraceae	*Lomandra obliqua*	1
4242	Myrtaceae	*Lophostemon confertus*	2
10528	Zamiaceae	*Macrozamia flexuosa*	1
2035	Celastraceae	*Maytenus silvestris*	3
4257	Myrtaceae	*Melaleuca linariifolia*	2
4261	Myrtaceae	*Melaleuca sieberi*	2
4266	Myrtaceae	*Melaleuca thymifolia*	1
2649	Epacridaceae	*Monotoca scoparia*	1
6860	Rubiaceae	*Morinda jasminoides*	1
11953	Myrsinaceae	*Myrsine variabilis*	3
3499	Lauraceae	*Neolitsea dealbata*	1
4318	Oleaceae	*Notelaea longifolia*	2
4321	Oleaceae	*Notelaea ovata*	1
5698	Rubiaceae	*Opercularia diphylla*	1
5044	Poaceae	*Oplismenus aemulus*	3
5045	Poaceae	*Oplismenus imbecillis*	1
Oxal	Oxalidaceae	*Oxalis spp.*	2
1740	Bignoniaceae	*Pandorea pandorana*	3
1185	Apocynaceae	*Parsonsia straminea*	1
3303	Iridaceae	*Patersonia sericea*	2
8010	Adiantaceae	*Pellaea paradoxa*	2
5461	Proteaceae	*Persoonia laurina*	1
5462	Proteaceae	*Persoonia levis*	1
5463	Proteaceae	*Persoonia linearis*	4
8216	Euphorbiaceae	*Phyllanthus hirtellus*	1
6182	Thymelaeaceae	*Pimelea linifolia*	1
4683	Pittosporaceae	*Pittosporum revolutum*	3
4685	Pittosporaceae	*Pittosporum undulatum*	1
8159	Polypodiaceae	*Platycerium bifurcatum*	3
3393	Lamiaceae	*Plectranthus argentatus*	2
3397	Lamiaceae	*Plectranthus parviflorus*	2
8040	Aspleniaceae	*Pleurosorus rutifolius*	1
9912	Fabaceae (Faboideae)	*Podolobium ilicifolium*	1
2231	Convolvulaceae	*Polymeria calycina*	1
1211	Araliaceae	*Polyscias sambucifolia*	2

Native Species List With Frequencies (Transect)			
CAPS Number	**Family**	**Display Name**	**Freq**
1925	Lobeliaceae	*Pratia purpurascens*	1
3413	Lamiaceae	*Prostanthera incisa*	2
1010	Acanthaceae	*Pseuderanthemum variabile*	3
5147	Poaceae	*Pseudoraphis paradoxa*	2
6403	Dennstaedtiaceae	*Pteridium esculentum*	6
8956	Cyperaceae	*Ptilothrix deusta*	3
3002	Fabaceae (Faboideae)	*Pultenaea linophylla*	1
3005	Fabaceae (Faboideae)	*Pultenaea paleacea*	3
3023	Fabaceae (Faboideae)	*Pultenaea villosa*	1
8163	Polypodiaceae	*Pyrrosia rupestris*	2
6018	Ripogonaceae	*Ripogonum album*	1
11236	Rosaceae	*Rubus moluccanus var. trilobus*	3
5642	Rosaceae	*Rubus parvifolius*	1
3688	Menispermaceae	*Sarcopetalum harveyanum*	1
2495	Cyperaceae	*Schoenus ericetorum*	1
8187	Selaginellaceae	*Selaginella uliginosa*	1
1666	Asteraceae	*Senecio lautus*	1
6022	Smilacaceae	*Smilax glyciphylla*	3
6100	Solanaceae	*Solanum prinophyllum*	1
3033	Fabaceae (Faboideae)	*Sphaerolobium vimineum*	1
8428	Menispermaceae	*Stephania japonica var. discolor*	1
6157	Stylidiaceae	*Stylidium graminifolium*	1
6688	Myrtaceae	*Syncarpia glomulifera*	2
11178	Meliaceae	*Synoum glandulosum subsp. glandulosum*	1
6214	Tremandraceae	*Tetratheca thymifolia*	1
5219	Poaceae	*Themeda australis*	3
3572	Anthericaceae	*Thysanotus juncifolius*	1
7346	Uvulariaceae	*Tripladenia cunninghamii*	2
4297	Myrtaceae	*Tristaniopsis laurina*	1
6272	Violaceae	*Viola hederacea*	1
3918	Monimiaceae	*Wilkiea huegeliana*	1
2664	Epacridaceae	*Woollsia pungens*	1
9309	Xanthorrhoeaceae	*Xanthorrhoea latifolia subsp. latifolia*	1
8843	Xanthorrhoeaceae	*Xanthorrhoea malacophylla*	2
1162	Apiaceae	*Xanthosia pilosa*	1
5847	Rutaceae	*Zieria smithii*	1

Exotic Species List With Frequencies			
CAPS Number	**Family**	**DisplayName**	**Freq**
1255	Asteraceae	*Ageratina adenophora*	1
4748	Poaceae	*Andropogon virginicus*	1
11194	Poaceae	*Axonopus fissifolius*	1
1283	Asteraceae	*Bidens pilosa*	2

Exotic Species List With Frequencies			
CAPS Number	**Family**	**DisplayName**	**Freq**
Cony	Asteraceae	*Conyza spp.*	1
1439	Asteraceae	*Erechtites valerianifolia*	1
6248	Verbenaceae	*Lantana camara*	2
4658	Phytolaccaceae	*Phytolacca octandra*	1
6465	Asteraceae	*Senecio madagascariensis*	1
6090	Solanaceae	*Solanum mauritianum*	2
6091	Solanaceae	*Solanum nigrum*	1

Exotic Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
1255	Asteraceae	*Ageratina adenophora*	1
4748	Poaceae	*Andropogon virginicus*	2
1227	Asclepiadaceae	*Gomphocarpus fruticosus*	1
8788	Asteraceae	*Hypochaeris radicata*	1
6248	Verbenaceae	*Lantana camara*	5
6058	Solanaceae	*Physalis peruviana*	1
5121	Poaceae	*Poa annua*	2

PLANT SPECIES LIST FROM TRANSECT SURVEYS

Native Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
3771	Fabaceae (Mimosoideae)	*Acacia falcata*	1
3774	Fabaceae (Mimosoideae)	*Acacia fimbriata*	1
3794	Fabaceae (Mimosoideae)	*Acacia irrorata*	1
3814	Fabaceae (Mimosoideae)	*Acacia linifolia*	2
3816	Fabaceae (Mimosoideae)	*Acacia longifolia*	2
3817	Fabaceae (Mimosoideae)	*Acacia longissima*	2
3893	Fabaceae (Mimosoideae)	*Acacia ulicifolia*	1
3968	Myrtaceae	*Acmena smithii*	1
7997	Adiantaceae	*Adiantum aethiopicum*	2
8000	Adiantaceae	*Adiantum hispidulum*	4
11044	Sapindaceae	*Alectryon coriaceous*	1
2012	Casuarinaceae	*Allocasuarina littoralis*	2
2017	Casuarinaceae	*Allocasuarina torulosa*	2
7686	Rhamnaceae	*Alphitonia excelsa*	1
6340	Zingiberaceae	*Alpinia caerulea*	1
3970	Myrtaceae	*Angophora costata*	2
4749	Poaceae	*Anisopogon avenaceus*	2
2266	Cunoniaceae	*Aphanopetalum resinosum*	2
4774	Poaceae	*Aristida warburgii*	1
10423	Aspleniaceae	*Asplenium australasicum forma australasicum*	1
8033	Aspleniaceae	*Asplenium flabellifolium*	1
2585	Epacridaceae	*Astroloma pinifolium*	1
5345	Proteaceae	*Banksia oblongifolia*	1
5347	Proteaceae	*Banksia robur*	1
5349	Proteaceae	*Banksia spinulosa*	1
2302	Cyperaceae	*Baumea rubiginosa*	2
4671	Pittosporaceae	*Billardiera scandens*	1
8051	Blechnaceae	*Blechnum camfieldii*	1
8052	Blechnaceae	*Blechnum cartilagineum*	5
8057	Blechnaceae	*Blechnum indicum*	2
8063	Blechnaceae	*Blechnum wattsii*	2

Native Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
5750	Rutaceae	*Boronia pinnata*	2
5751	Rutaceae	*Boronia polygalifolia*	1
2695	Euphorbiaceae	*Breynia oblongifolia*	3
4674	Pittosporaceae	*Bursaria spinosa*	1
5314	Portulacaceae	*Calandrinia pickeringii*	2
2269	Cunoniaceae	*Caldcluvia paniculosa*	1
2270	Cunoniaceae	*Callicoma serratifolia*	3
4010	Myrtaceae	*Callistemon pachyphyllus*	1
4015	Myrtaceae	*Callistemon salignus*	1
8341	Dicksoniaceae	*Calochlaena dubia*	4
8855	Cyperaceae	*Carex maculata*	2
Care	Cyperaceae	*Carex spp.*	2
6281	Vitaceae	*Cayratia clematidea*	3
Chei	Adiantaceae	*Cheilanthes spp.*	1
2344	Cyperaceae	*Chorizandra cymbaria*	1
8188	Thelypteridaceae	*Christella dentata*	1
6282	Vitaceae	*Cissus antarctica*	1
6285	Vitaceae	*Cissus opaca*	1
6864	Poaceae	*Cleistochloa rigida*	1
Clem	Ranunculaceae	*Clematis spp.*	1
5253	Polygalaceae	*Comesperma ericinum*	2
2209	Commelinaceae	*Commelina cyanea*	2
9976	Proteaceae	*Conospermum ericifolium*	1
8079	Cyatheaceae	*Cyathea leichhardtiana*	2
3174	Goodeniaceae	*Dampiera stricta*	1
4856	Poaceae	*Danthonia linkii*	1
3911	Monimiaceae	*Daphnandra micrantha*	1
1109	Apiaceae	*Daucus glochidiatus*	1
10647	Davalliaceae	*Davallia solida var. pyxidata*	2
2827	Fabaceae (Faboideae)	*Daviesia ulicifolia*	1
4432	Orchidaceae	*Dendrobium speciosum*	1
2834	Fabaceae (Faboideae)	*Desmodium brachypodum*	3
3540	Phormiaceae	*Dianella caerulea*	2
6700	Phormiaceae	*Dianella caerulea var. caerulea*	4
7337	Phormiaceae	*Dianella caerulea var. producta*	2
3542	Phormiaceae	*Dianella revoluta*	2
11904	Fabaceae (Faboideae)	*Dillwynia retorta species complex*	1
6446	Dioscoreaceae	*Dioscorea transversa*	4
2562	Ebenaceae	*Diospyros australis*	1
5911	Sapindaceae	*Dodonaea triquetra*	4
8064	Blechnaceae	*Doodia aspera*	4
2556	Droseraceae	*Drosera auriculata*	1
4934	Poaceae	*Echinopogon ovatus*	1
3959	Myrsinaceae	*Embelia australiana*	1
5532	Restionaceae	*Empodisma minus*	1

Native Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
4946	Poaceae	*Entolasia marginata*	1
4947	Poaceae	*Entolasia stricta*	4
2605	Epacridaceae	*Epacris pulchella*	1
8599	Myrtaceae	*Eucalyptus carnea*	1
4128	Myrtaceae	*Eucalyptus microcorys*	3
4155	Myrtaceae	*Eucalyptus pilularis*	2
4171	Myrtaceae	*Eucalyptus robusta*	2
6015	Luzuriagaceae	*Eustrephus latifolius*	2
7479	Moraceae	*Ficus coronata*	2
3924	Moraceae	*Ficus rubiginosa*	2
2432	Cyperaceae	*Gahnia clarkei*	5
2441	Cyperaceae	*Gahnia radula*	1
2442	Cyperaceae	*Gahnia sieberiana*	1
6016	Luzuriagaceae	*Geitonoplesium cymosum*	5
Gera	Geraniaceae	*Geranium spp.*	2
6708	Gleicheniaceae	*Gleichenia microphylla*	1
7866	Euphorbiaceae	*Glochidion ferdinandi*	4
2860	Fabaceae (Faboideae)	*Glycine clandestina*	3
3243	Haloragaceae	*Gonocarpus micranthus*	1
3247	Haloragaceae	*Gonocarpus tetragynus*	2
3248	Haloragaceae	*Gonocarpus teucrioides*	1
8755	Goodeniaceae	*Goodenia heterophylla subsp. eglandulosa*	3
3192	Goodeniaceae	*Goodenia ovata*	1
7057	Goodeniaceae	*Goodenia paniculata*	2
Good	Goodeniaceae	*Goodenia spp.*	1
1195	Araceae	*Gymnostachys anceps*	3
3236	Haemodoraceae	*Haemodorum planifolium*	1
5409	Proteaceae	*Hakea dactyloides*	1
2873	Fabaceae (Faboideae)	*Hardenbergia violacea*	4
1492	Asteraceae	*Helichrysum elatum*	2
2532	Dilleniaceae	*Hibbertia dentata*	2
2542	Dilleniaceae	*Hibbertia obtusifolia*	1
2548	Dilleniaceae	*Hibbertia scandens*	3
Hibb	Dilleniaceae	*Hibbertia spp.*	1
8877	Malvaceae	*Hibiscus heterophyllus subsp. heterophyllus*	1
11947	Euphorbiaceae	*Homalanthus populifolius*	1
7240	Clusiaceae	*Hypericum gramineum*	1
8511	Poaceae	*Imperata cylindrica var. major*	3
2882	Fabaceae (Faboideae)	*Indigofera australis*	2
3340	Juncaceae	*Juncus planifolius*	1
2898	Fabaceae (Faboideae)	*Kennedia rubicunda*	2
6139	Sterculiaceae	*Lasiopetalum ferrugineum*	1
11102	Dryopteridaceae	*Lastreopsis microsora subsp. microsora*	1
2470	Cyperaceae	*Lepidosperma longitudinale*	1
2471	Cyperaceae	*Lepidosperma neesii*	2

Native Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
9080	Myrtaceae	*Leptospermum polyanthum*	1
7245	Myrtaceae	*Leptospermum polygalifolium*	4
8199	Myrtaceae	*Leptospermum polygalifolium subsp. cismontanum*	1
2616	Epacridaceae	*Leucopogon ericoides*	1
6406	Lindsaeaceae	*Lindsaea linearis*	1
6401	Lindsaeaceae	*Lindsaea microphylla*	2
4469	Orchidaceae	*Liparis reflexa*	1
7709	Lomandraceae	*Lomandra confertifolia subsp. pallida*	2
6308	Lomandraceae	*Lomandra longifolia*	7
6312	Lomandraceae	*Lomandra obliqua*	1
4242	Myrtaceae	*Lophostemon confertus*	2
10528	Zamiaceae	*Macrozamia flexuosa*	1
2035	Celastraceae	*Maytenus silvestris*	3
4257	Myrtaceae	*Melaleuca linariifolia*	2
4261	Myrtaceae	*Melaleuca sieberi*	2
4266	Myrtaceae	*Melaleuca thymifolia*	1
2649	Epacridaceae	*Monotoca scoparia*	1
6860	Rubiaceae	*Morinda jasminoides*	1
11953	Myrsinaceae	*Myrsine variabilis*	3
3499	Lauraceae	*Neolitsea dealbata*	1
4318	Oleaceae	*Notelaea longifolia*	2
4321	Oleaceae	*Notelaea ovata*	1
5698	Rubiaceae	*Opercularia diphylla*	1
5044	Poaceae	*Oplismenus aemulus*	3
5045	Poaceae	*Oplismenus imbecillis*	1
Oxal	Oxalidaceae	*Oxalis spp.*	2
1740	Bignoniaceae	*Pandorea pandorana*	3
1185	Apocynaceae	*Parsonsia straminea*	1
3303	Iridaceae	*Patersonia sericea*	2
8010	Adiantaceae	*Pellaea paradoxa*	2
5461	Proteaceae	*Persoonia laurina*	1
5462	Proteaceae	*Persoonia levis*	1
5463	Proteaceae	*Persoonia linearis*	4
8216	Euphorbiaceae	*Phyllanthus hirtellus*	1
6182	Thymelaeaceae	*Pimelea linifolia*	1
4683	Pittosporaceae	*Pittosporum revolutum*	3
4685	Pittosporaceae	*Pittosporum undulatum*	1
8159	Polypodiaceae	*Platycerium bifurcatum*	3
3393	Lamiaceae	*Plectranthus argentatus*	2
3397	Lamiaceae	*Plectranthus parviflorus*	2
8040	Aspleniaceae	*Pleurosorus rutifolius*	1
9912	Fabaceae (Faboideae)	*Podolobium ilicifolium*	1
2231	Convolvulaceae	*Polymeria calycina*	1
1211	Araliaceae	*Polyscias sambucifolia*	2

Native Species List With Frequencies			
CAPS Number	**Family**	**Display Name**	**Freq**
1925	Lobeliaceae	*Pratia purpurascens*	1
3413	Lamiaceae	*Prostanthera incisa*	2
1010	Acanthaceae	*Pseuderanthemum variabile*	3
5147	Poaceae	*Pseudoraphis paradoxa*	2
6403	Dennstaedtiaceae	*Pteridium esculentum*	6
8956	Cyperaceae	*Ptilothrix deusta*	3
3002	Fabaceae (Faboideae)	*Pultenaea linophylla*	1
3005	Fabaceae (Faboideae)	*Pultenaea paleacea*	3
3023	Fabaceae (Faboideae)	*Pultenaea villosa*	1
8163	Polypodiaceae	*Pyrrosia rupestris*	2
6018	Ripogonaceae	*Ripogonum album*	1
11236	Rosaceae	*Rubus moluccanus var. trilobus*	3
5642	Rosaceae	*Rubus parvifolius*	1
3688	Menispermaceae	*Sarcopetalum harveyanum*	1
2495	Cyperaceae	*Schoenus ericetorum*	1
8187	Selaginellaceae	*Selaginella uliginosa*	1
1666	Asteraceae	*Senecio lautus*	1
6022	Smilacaceae	*Smilax glyciphylla*	3
6100	Solanaceae	*Solanum prinophyllum*	1
3033	Fabaceae (Faboideae)	*Sphaerolobium vimineum*	1
8428	Menispermaceae	*Stephania japonica var. discolor*	1
6157	Stylidiaceae	*Stylidium graminifolium*	1
6688	Myrtaceae	*Syncarpia glomulifera*	2
11178	Meliaceae	*Synoum glandulosum subsp. glandulosum*	1
6214	Tremandraceae	*Tetratheca thymifolia*	1
5219	Poaceae	*Themeda australis*	3
3572	Anthericaceae	*Thysanotus juncifolius*	1
7346	Uvulariaceae	*Tripladenia cunninghamii*	2
4297	Myrtaceae	*Tristaniopsis laurina*	1
6272	Violaceae	*Viola hederacea*	1
3918	Monimiaceae	*Wilkiea huegeliana*	1
2664	Epacridaceae	*Woollsia pungens*	1
9309	Xanthorrhoeaceae	*Xanthorrhoea latifolia subsp. latifolia*	1
8843	Xanthorrhoeaceae	*Xanthorrhoea malacophylla*	2
1162	Apiaceae	*Xanthosia pilosa*	1
5847	Rutaceae	*Zieria smithii*	1

Exotic Species List With Frequencies			
CAPS Number	**Family**	**DisplayName**	**Freq**
1255	Asteraceae	*Ageratina adenophora*	1
4748	Poaceae	*Andropogon virginicus*	1
11194	Poaceae	*Axonopus fissifolius*	1
1283	Asteraceae	*Bidens pilosa*	2

Exotic Species List With Frequencies			
CAPS Number	**Family**	**DisplayName**	**Freq**
Cony	Asteraceae	*Conyza spp.*	1
1439	Asteraceae	*Erechtites valerianifolia*	1
6248	Verbenaceae	*Lantana camara*	2
4658	Phytolaccaceae	*Phytolacca octandra*	1
6465	Asteraceae	*Senecio madagascariensis*	1
6090	Solanaceae	*Solanum mauritianum*	2
6091	Solanaceae	*Solanum nigrum*	1

APPENDIX 4 – FAUNA SPECIES LIST

001	Emu			
008	Australian Brush-turkey			
009	Stubble Quail			
011	Brown Quail			
199	**Magpie Goose**			
205	Plumed Whistling-Duck			
204	Wandering Whistling-Duck			
217	Musk Duck			
214	**Freckled Duck**			
203	Black Swan			
207	Australian Shelduck			
202	Australian Wood Duck			
948	Mallard			
208	Pacific Black Duck			
212	Australasian Shoveler			
211	Grey Teal		#	
210	Chestnut Teal			
213	Pink-eared Duck			
215	Hardhead			
061	Australasian Grebe			
062	Hoary-headed Grebe			
060	Great Crested Grebe			
005	Little Penguin			
069	Wedge-tailed Shearwater			
072	Flesh-footed Shearwater			
071	Short-tailed Shearwater			
068	Fluttering Shearwater			
104	Australasian Gannet			
101	Darter			
100	Little Pied Cormorant			
099	Pied Cormorant			#
097	Little Black Cormorant			
096	Great Cormorant			
106	Australian Pelican			
188	White-faced Heron			
185	Little Egret			
191	Eastern Reef Egret			
189	White-necked Heron			
187	Great Egret			
186	Intermediate Egret			
977	Cattle Egret			
193	Striated Heron			
192	Nankeen Night Heron			
178	Glossy Ibis			
179	Australian White Ibis			
180	Straw-necked Ibis			
181	Royal Spoonbill			
182	Yellow-billed Spoonbill			
183	**Black-necked Stork**			
241	**Osprey**			
234	Pacific Baza			
232	Black-shouldered Kite			
229	Black Kite			
228	Whistling Kite			
227	Brahminy Kite			
226	White-bellied Sea-Eagle	#		
218	Spotted Harrier			
219	Swamp Harrier			
221	Brown Goshawk			

220	Grey Goshawk			
222	Collared Sparrowhawk			
224	Wedge-tailed Eagle			
225	Little Eagle			
239	Brown Falcon			
235	Australian Hobby			
237	Peregrine Falcon	#		
240	Nankeen Kestrel			
046	Buff-banded Rail			
045	Lewin's Rail			
050	Baillon's Crake			
049	Australian Spotted Crake			
051	Spotless Crake			
058	Purple Swamphen			
056	Dusky Moorhen			
059	Eurasian Coot			
014	Painted Button-quail			
168	Latham's Snipe			
152	**Black-tailed Godwit**			
153	Bar-tailed Godwit			
150	Whimbrel			
149	Eastern Curlew			
159	Marsh Sandpiper			
158	Common Greenshank			
160	**Terek Sandpiper**			
157	Common Sandpiper			
155	Grey-tailed Tattler			
129	Ruddy Turnstone			
165	Great Knot			
164	Red Knot			
162	Red-necked Stint			
978	Pectoral Sandpiper			
163	Sharp-tailed Sandpiper			
161	Curlew Sandpiper			
171	**Comb-crested Jacana**			
130	**Pied Oystercatcher**			
131	**Sooty Oystercatcher**			
146	Black-winged Stilt			
148	Red-necked Avocet			
800	Pacific Golden Plover			
143	Red-capped Plover			
140	Double-banded Plover			
139	**Lesser Sand Plover**			
144	Black-fronted Dotterel			
132	Red-kneed Dotterel			
135	Banded Lapwing			
133	Masked Lapwing			
128	Arctic Jaeger			
125	Silver Gull			
111	Gull-billed Tern			
112	Caspian Tern			
115	Crested Tern			
114	White-fronted Tern			
953	Common Tern			
117	**Little Tern**			
110	Whiskered Tern			
109	White-winged Black Tern			
957	Rock Dove			
028	White-headed Pigeon			

989	Spotted Turtle-Dove			
029	Brown Cuckoo-Dove			
033	Emerald Dove			
034	Common Bronzewing			#
035	Brush Bronzewing			
043	Crested Pigeon			
030	Peaceful Dove			
032	Bar-shouldered Dove	#		
044	Wonga Pigeon			
025	Wompoo Fruit-Dove			
027	Topknot Pigeon			
265	**Glossy Black-Cockatoo**		#	#
267	Yellow-tailed Black-	#	#	#
268	Gang-gang Cockatoo			
273	Galah			
272	Long-billed Corella			
271	Little Corella			
269	Sulphur-crested Cockatoo	#		
254	Rainbow Lorikeet	#	#	
256	Scaly-breasted Lorikeet			
258	Musk Lorikeet			
260	Little Lorikeet			
281	Australian King-Parrot			#
282	Crimson Rosella			
288	Eastern Rosella	#		#
295	Red-rumped Parrot			
302	**Turquoise Parrot**			
337	Pallid Cuckoo			
339	Brush Cuckoo			
338	Fan-tailed Cuckoo			#
342	Horsfield's Bronze-			#
344	Shining Bronze-Cuckoo			
347	Common Koel			#
348	Channel-billed Cuckoo			#
349	Pheasant Coucal			#
248	**Powerful Owl**			#
242	Southern Boobook			
313	Tawny Frogmouth			
330	White-throated Nightjar			#
317	Australian Owlet-nightjar			
334	White-throated Needle-tail			
335	Fork-tailed Swift			
319	Azure Kingfisher			
322	Laughing Kookaburra		#	
326	Sacred Kingfisher			
329	Rainbow Bee-eater			
318	Dollarbird			

OTHER NON-PASSERINES

	#		
	#		
	#		
	#		

Unusual Observation Report (UOR) may be required; please make field notes

352	NoisyPitta			
350	Superb Lyrebird			
355	**Rufous Scrub-bird**			
558	White-throated			#
560	Red-browed Treecreeper			
555	Brown Treecreeper			
529	Superb Fairy-wren		#	#
536	Variegated Fairy-wren	#		
541	Red-backed Fairy-wren			
526	Southern Emu-wren			
565	Spotted Pardalote			#
976	Striated Pardalote			
505	Rockwarbler			
493	Yellow-throated			
488	White-browed Scrubwren		#	
494	Large-billed Scrubwren			
498	Chestnut-rumped			
504	Speckled Warbler			
465	Weebill			
454	Brown Gerygone		#	#
460	Mangrove Gerygone			
463	Western Gerygone			
453	White-throated Gerygone			#
475	Brown Thornbill			#
484	Buff-rumped Thornbill			
486	Yellow-rumped Thornbill			
471	Yellow Thornbill		#	
470	Striated Thornbill			
466	Southern Whiteface			
638	Red Wattlebird	#	#	#
637	Little Wattlebird			
585	Striped Honeyeater			
645	Noisy Friarbird			#
646	Little Friarbird			
603	**Regent Honeyeater**			
641	Blue-faced Honeyeater			
633	Bell Miner			
634	Noisy Miner	#	#	#
605	Lewin's Honeyeater		#	#
614	Yellow-faced Honeyeater	#	#	#
617	White-eared Honeyeater			
619	Yellow-tufted Honeyeater			
613	Fuscous Honeyeater			
625	White-plumed Honeyeater			
580	Black-chinned Honeyeater			
583	Brown-headed			
578	White-**naped** Honeyeater			
597	Brown Honeyeater			

630	Crescent Honeyeater			
631	New Holland Honeyeater			
632	White-cheeked			
593	Tawny-crowned			#
591	Eastern Spinebill			#
586	Scarlet Honeyeater			
448	White-fronted Chat			
377	Jacky Winter			
380	Scarlet Robin			
381	Red-capped Robin			
382	Flame Robin			
384	Rose Robin			
385	Hooded Robin			
396	Pale-yellow Robin			
392	Eastern Yellow Robin	#	#	#
434	Logrunner			
443	Grey-crowned Babbler			
445	White-browed Babbler			
421	Eastern Whipbird			#
436	Spotted Quail-thrush			
549	Varied Sittella			#
416	Crested Shrike-tit			
405	**Olive Whistler**			
398	Golden Whistler	#		#
401	Rufous Whistler			#
408	Grey Shrike-thrush	#	#	#
373	Black-faced Monarch			
375	Spectacled Monarch			
365	Leaden Flycatcher			#
369	Restless Flycatcher			
415	Magpie-lark			
362	Rufous Fantail			#
361	Grey Fantail		#	#
364	Willie Wagtail			
673	Spangled Drongo			
424	Black-faced Cuckoo-			
425	White-bellied Cuckoo-			#
429	Cicadabird			#
430	White-winged Triller			
431	Varied Triller			#
671	Olive-backed Oriole			
432	Figbird			
543	White-breasted Wood			
544	Masked Wood Swallow			
545	White-browed Wood			
547	Dusky Wood Swallow			
702	Grey Butcherbird	#		

700	Pied Butcherbird	#		
705	Australian Magpie	#		
694	Pied Currawong	#	#	#
686	Paradise Riflebird			
930	Australian Raven	#	#	
868	Forest Raven			
692	Torresian Crow			
693	White-winged Chough			
676	Green Catbird			
684	Regent Bowerbird			
679	Satin Bowerbird			
648	Singing Bushlark			
993	Skylark			
647	Richard's Pipit			
995	House Sparrow			
653	Zebra Finch			
655	Double-barred Finch			
661	Plum-headed Finch			
662	Red-browed Finch		#	#
652	Diamond Firetail			
657	Chestnut-breated			
996	European Goldfinch			
564	Mistletoe bird			
358	White-backed Swallow			
357	Welcome Swallow	#		
359	Tree Martin			
360	Fairy Martin			
990	Red-whiskered Bulbul			
524	Clamorous Reed-Warbler			
523	Tawny Grassbird			
522	Little Grassbird			
509	Rufous Songlark			
508	Brown Songlark			
525	Golden-headed Cisticola			
574	Silvereye			
779	Bassian Thrush			
780	Russet-tailed Thrush			
991	Common Blackbird			
999	Common Starling			
998	Common Myna			

OTHER PASSERINES

	#		
	#		
	#		
	#		

Unusual Observation Report (UOR) may be required; please make field notes

INSTRUCTIONS: **This record sheet lists the species more likely to be found. Additional space is provided for reporting any species not listed. Use one sheet for each 10 minute grid – if in doubt as to grid boundaries, use a new sheet for each location. Record all species present, indicating <u>exact numbers</u> if possible. Otherwise, use the approximations A = 1-5 birds present, B = 6-20 birds, C = 21-50 birds, D = 51-100 birds, E = over 100 birds, X = not counted, H = heard only. All records of Category 3 bird species require an Unusual Observation Report (UOR) to be completed; for Category 2 species, a UOR may be requested if species are present in unusual numbers, location or season. Species, in the second column, which appear on the List of Threatened & Endangered Species for NSW ("Schedule 1&2") are indicated in Bold – observation reports of these species may assist in development of management strategies for NSW.**

BREEDING RECORDS: **In the third column, please indicate any observed breeding behaviour, using the abbreviations ny = nest with young, ne = nest with eggs, fs = fecal sac, on = bird on or seen leaving nest, nb = nest building, cf = carrying food, dy = dependent young, ih = 26ubs26drica hollow, di = display, co = copulation.**

Dates of Survey; 12.07.07; 06.08.07; 30.08.07; 30.10.07

MAMMAL SURVEY RECORD

Platypus			
Short-beaked Echidna			
Western Quoll			
Spotted-tailed Quoll			
Eastern Quoll			
Yellow-footed Antechinus	#		
Brown Antechinus	#		
Dusky Antechinus			
Agile Antechinus			
Red-tailed Phascogale			
Brush-tailed Phascogale			
Giles Planigale			
Common Planigale			
Narrow-nosed Planigale			
Southern Ningaui			
Kultarr			
Fat-tailed Dunnart			
White-footed Dunnart			
Stripe-faced Dunnart			
Common Dunnart			
Numbat			
Pig-footed Bandicoot			
Golden Bandicoot			
Northern Brown Bandicoot	#		
Southern Brown Bandicoot			
Western Barred Bandicoot			
Long-nosed Bandicoot			
Bilby			
Koala			
Northern Hairy-nosed Wombat			
Common Wombat			
Mountain Pigmy-Possum			
Eastern Pygmy-Possum			
Yellow-bellied Glider			
Sugar Glider	#		
Squirrel Glider	#		
Greater Glider			
Common Ringtail Possum			
Feathertail Glider			
Mountain Brushtail Possum			
Common Brushtail Possum	#		
Rufous Bettong			
Tasmanian Bettong			
Burrowing Bettong			
Brush-tailed Bettong			
Long-footed Potoroo			
Long-nosed Potoroo			
Eastern Hare- Wallaby			
Black-striped Wallaby			
Western Grey Kangaroo			

Eastern Grey Kangaroo	#		
Parma Wallaby			
Whiptail Wallaby			
Common Wallaroo			
Red-necked Wallaby	#		
Red Kangaroo			
Bridled Nailtail Wallaby			
Crescent Nailtail Wallaby			
Brush-tailed Rock Wallaby			
Yellow-footed Rock Wallaby			
Red-legged Pademelon			
Red-necked Pademelon			
Swamp Wallaby	#		
Common Blosson-bat			
Eastern Tube-nosed Bat			
Black Flying-fox			
Grey-headed Flying Fox			
Little Red Flying Fox			
Esstern Horseshoe-bat	#		
Yellow-bellied Sheathtail-bat	#		
Eastern Freetail-bat	#		
Southern Freetail-bat			
White-striped Freetail-bat	#		
Golden-tipped Bat			
Little Bent-wing Bat	#		
Common Bent-wing Bat	#		
Eastern Long-eared Bat			
Lesser Long-eared Bat			
Gould's Long-eared Bat	#		
Greater Long-eared Bat			
Large-eared Pied Bat			
Gould's Wattled Bat	#		
Chocolate Wattled Bat	#		
Hoary Wattled Bat			
Little Pied Bat			
Eastern False Pipistrelle			
Large-footed Myotis	#		
Greater Broad-nosed Bat			
Inland Broad-nosed Bat			
Little Broad-nosed Bat			
Eastern Broad-nosed Bat			
Inland Forest Bat			
Large Forest Bat			
Eastern Forest Bat	#		
Southern Forest Bat	#		
Eastern Cave Bat			
Little Forest Bat	#		
White-footed Tree Rat			
Forrest's Mouse			
Lesser Stick-nest Rat			

Greater Stick-nest Rat			
Broad-toothed Rat			
Fawn Hopping Mouse			
Dusky Hopping Mouse			
Bolam's Mouse			
Desert Mouse			
Smokey Mouse			
Gould's Mouse			
Eastern Chestnut Mouse			
Sandy Inland Mouse			
New Holland Mouse			
Hastings River Mouse			
Pilliga Mouse			
Water-rat			
Grassland Melomys			
Fawn-footed Melomys			
House Mouse			
Bush Rat	#		
Swamp Rat			
Brown Rat			
Black Rat	#		
Pale Field-rat			
Long-haired Rat			
Dugong			
Dingo			
Fox			
Cat			
Rabbit			
Brown Hare			
Brumby			
Pig			
GoatFallow Deer	#		
Rusa Deer			
Sambar			
A Freetail Bat	#		

Unusual Observation Report (UOR) may be

required; please make field notes

INSTRUCTIONS: This record sheet lists the species more likely to be found. Additional space is provided for reporting any species not listed. Use one sheet for each 10 minute grid – if in doubt as to grid boundaries, use a new sheet for each location. Record all species present, indicating **exact numbers** if possible. Otherwise, use the approximations **A** = 1-5 mammals present, **B** = 6-20 mammals, **C** = 21-50 mammals, **D** = 51-100 mammals, **E** = over 100 mammals, **X** = not counted, **H** = heard only. Species, in the second column, which appear on the List of Threatened & Endangered Species for NSW ("Schedule 1&2") are indicated in **Bold** – observation reports of these species may assist in development of management strategies for NSW.

BREEDING RECORDS: **In the third column, please indicate any observed breeding behaviour, using the abbreviations ny = nest with young, ne = nest/hollow with young, fs = fecal sac, on = mammal on or seen leaving nest,/hollow nb = nest building, cf = carrying food, dy = dependent young, ih = inspecting hollow, di = display, co = copulation.**

Adelotus brevis			
Crinia signifera	#	#	
Crinnia tinnula			
Lechriodus fletcheri			
Limnodynastes dumerilii			
Limnodynastes fletcheri			
Limnodynastes ornatus			
Limnodynastes peronii			
Limnodynastes salmini			
Limnodynastes			
Limnodynastes			
Mixophyes balbus			
Neobatrachus centralis			
Neobatrachus pictus			
Notaden bennettii			
Paracrinia haswelli			
Philoria loveridgei			
Philoria sphagnicola			
Pseudophryne australis			
Pseudophryne bibronii			
Pseudophryne coriacea			
Pseudophryne corroboree			
Pseudophryne dendyi			
Uperoleia capitulata			
Uperoleia fusca		#	
Uperoleia laevigata			
Uperoleia rugosa			
Uperoleia tyleri			
Cycorana			
Cyclorana platycephala			
Cyclorana verrucosa			
Litoria alboguttata			
Litoria aurea			
Litoria booroolongensis			
Litoria brevipalmata			
Litoria caerulea			
Litoria castanea			
Litoria chloris			
Litoria citropa			
Litoria dentata			
Litoria ewingii			
Litoria fallax			
Litoria freycineti			
Litoria gracilenta			
Litoria jervisiensis		#	
Litoria latopalmata		#	
Litoria lesueuri			
Litoria nasuta			
Litoria olongburensis			
Litoria peronii		#	#
Litoria phyllochroa			
Litoria piperata			
Litoria raniformis			
Litoria rothii			
Litoria rubella			
Litoria verreauxii			
Dermochelys coriacea			
Chelodina expansa			
Elseya latisternum			

Emydura macquarii			
Christinus marmoratus			
Diplodactylus byrnei			
Diplodactylus ciliaris			
Diplodactylus			
Diplodactylus elderi			
Diplodactylus intermedius			
Diplodactylus			
Diplodactylus tessellatus			
Diplodactylus vittatus			
Diplodactylus williamsi			
Gehyra dubia			
Gehyra variegata			
Heteronotia binoei			
Lucasium damaeum			
Nephrurus levis			
Oedura lesueurii			
Oedura marmorata			
Oedura monilis			
Oedura robusta			
Oedura tryoni			
Phyllurus platurus			
Rhynchoedura ornata			
Underwoodisaurus milii			
Underwoodisaurus			
Aprasia inaurita			
Aprasia parapulchella			
Delma impar			
Delma inornata			
Delma tincta			
Lialis burtonis			
Pygopus lepidopodus			
Pygopus nigriceps			
Amphibolurus muricatus			
Amphibolurus nobbi			
Ctenophorus fordi			
Ctenophorus nuchalis			
Ctenophorus pictus			
Diporiphora winneckei			
Hypsilurus spinipes			
Lophognathus gilkerti			
Physignathus lesueurii			
Pogona barbata			
Pogona vitticeps			
Tympanocryptis diemensis			
Tympanocryptis lineata			
Tympanocryptis			
Varanus gouldii			
Varanus rosenbergi			
Varanus tristis			
Varanus varius		#	
Anomalopus leuckartii			
Anomalopus mackayi			
Anomalopus swansoni			
Anomalopus verreauxii			
Calyptotis ruficauda			
Calyptotis scutirostrum			
Carlia pectoralis			
Carlia schmeltzii			

Carlia tetradactyla			
Carlia vivax			
Coeranoscincus			
Cryptoblepharus carnabyi			
Cryptoblepharus			
Cryptoblepharus virgatus			
Ctenotus allotropis			
Ctenotus atlas			
Ctenotus brachyonyx			
Ctenotus brooksi			
Ctenotus eurydice			
Ctenotus ingrami			
Ctenotus leae			
Ctenotus leonardii			
Ctenotus pantherinus			
Ctenotus regius			
Ctenotus robustus			
Ctenotus schomburgkii			
Ctenotus strauchii			
Ctenotus taeniolatus			
Ctenotus uber			
Egernia cunninghami			
Egernia frerei			
Egernia inornata			
Egernia major			
Egernia mcpheei			
Egernia modesta			
Egernia saxatilis			
Egernia whitii			
Eremiascincus fasciolatus			
Eremiascincus			
Eulamprus heatwolei			
Eulamprus kosciuskoi			
Eulamprus murrayi			
Eulamprus quoyii			
Eulamprus tenuis			
Eulamprus tympanum			
Hemiergis decresiensis			
Hemiergis millewae			
Hemisphaeriodon gerrardii			
Lampropholis caligula			
Lampropholis delicata	#		
Lampropholis guichenoti			
Lerista bougainvillii			
Lerista fragilisLerista			
Lerista muelleri			
Lerista punctatovittata			

Lerista xanthura			
Lygisaurus laevis			
Menetia greyii			
Morethia adeaidensis			
Morethia boulengeri			
Morethia obscura			

Nannoscincus maccoyi

Unusual Observation Report (UOR) may be required; please make field notes

Ophioscincus truncatus

Proablepharus kinghorni

Pseudemoia coventryi			
Pseudemoia duperreyi			
Pseudemoia			
Pseudemoia platynota			
Pseudemoia rawlinsoni			
Pseudemoia trillineata			
Pseudemoia zia			
Saiphos equalis			
Saproscincus mustelinus			
Tiliqua multifasciata			
Tiliqua nigrolutea			
Tiliqua occipitalis			
Tiliqua scincoides			
Trachydosaurus rugosus			
Ramphotyphlops affinis			
Ramphotyphlops australis			
Ramphotyphlops broomi			
Ramphotyphlops			
Ramphotyphlops ligatus			
Ramphotyphlops			
Ramphotyphlops			
Ramphotyphlops			
Ramphotyphlops wiedii			
Aspidites ramsayi			
Liasis maculosus			
Liasis stimsoni			
Morelia spilota			
Boiga irregularis			#
Dendrelaphis punctulata			
Tropidonophis mairii			
Acanthophis antarcticus			
Acanthophis pyrrhus			
Cacophis harriettae			
Cacophis squamulosus			
Demansia psammophis			
Demansia torquata			
Denisonia devisi			
Drysdalia coronoides			
Drysdalia rhodogaster			
Echiopsis curta			
Furina diadema			
Hemiaspis damelii			

Hemiaspis signata			
Hoplocephalus			
Hoplocephalus			
Hoplocephalus stephensii			
Notechis scutatus			
Oxyuranus scutellatus			
Pseudechis australis			
Pseudechis guttatus			
Pseudechis porphyriacus			
Pseudonaja modesta			
Pseudonaja nuchalis			
Pseudonaja textilis		#	
Rhinoplocephalus			
Simoselaps australis			
Simoselaps fasciolatus			
Suta monachus			
Suta spectabilis			
Suta suta			
Tropidechis carinatus			
Vermicella annulata			
Hydrophis elegans			
Pelamis platurus			
Pseudophyryne pengilleyi			
Litoria littlejohni			
Litoria pearsoniana			
Elseya belli			
Elseya georgesi			
Elseya purvisi			
Saltuarius swaini			
Cyclodomorphus michaeli			
Cyclodomorphus venustus			
Eulamprus martini			
Saproscincus lewisi			
Saproscincus spectabilis			
Saproscincus oriarus			
Saproscincus rosei			
Austrelaps ramsayi			

OTHER REPTILES- AMPHIB.

	#		
	#		
	#		
	#		

Unusual Observation Report (UOR) may be required; please make field notes

INSTRUCTIONS: **This record sheet lists the species more likely to be found. Additional space is provided for reporting any species not listed. Use one sheet for each 10 minute grid – if in doubt as to grid boundaries, use a new sheet for each location. Record all species present, indicating <u>exact numbers</u> if possible. Otherwise, use the approximations A = 1-5 animals present, B = 6-20 animals, C = 21-50 animals, D = 51-100 animals E = over 100 animals, X = not counted, H = heard onlySpecies, in the second column, which appear on the List of Threatened & Endangered Species for NSW ("Schedule 1&2") are indicated in Bold – observation reports of these species may assist in development of management strategies for NSW.**
BREEDING RECORDS: **In the third column, please indicate any observed breeding behaviour, using the abbreviations ny = nest with young, ne = nest with eggs, fs = fecal sac, on = bird on or seen leaving nest, nb = nest building, cf = carrying food, dy = dependent young, ih = 30ubs30drica hollow, di = display, co = copulation, ta = tadpoles**

APPENDIX 5 – ATTRIBUTE SHEETS FOR FAUNA HABITATS SIGNIFICANCE

Vegetation community- Stunted Forest on Alum Mountain Volcanics					
Does the vegetation community support known threatened fauna species or endangered populations			**no**		
Does the vegetation community type constitute a community of local ecological significance			**yes**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**			**0**	**0**
Abundance of dead trees\Stags	**10**			**0**	**0**
Any caves, mines or tunnels presence	**5**			**0**	**0**
Presence of wet areas\water bodies	**10**			**0**	**0**
Abundance of rocks or escarpments	**5**	**2**			**10**
Abundance of fallen timber or logs	**5**			**0**	**0**
Abundance of nectar resources	**5**		**1**		**5**
Abundance of fruit resources	**5**			**0**	**0**
Community part of wildlife corridor	**10**	**2**			**20**
Community in key habitat area	**10**	**2**			**20**
Faunal refugia values	**5**	**2**			**10**
Dense shrub or groundcover	**5**		**1**		**5**
Faunal species diversity	**5**			**0**	**0**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**75**

Vegetation community- Melaleuca Forest with emergents in areas of impeded drainage					
Does the vegetation community support known threatened fauna species or endangered populations			**yes**		
Does the vegetation community type constitute a community of local ecological significance			**yes**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**	**2**			**20**
Abundance of dead trees\Stags	**10**	**2**			**20**
Any caves, mines or tunnels presence	**5**			**0**	**0**
Presence of wet areas\water bodies	**10**		**1**		**10**
Abundance of rocks or escarpments	**5**			**0**	**0**
Abundance of fallen timber or logs	**5**	**2**			**10**
Abundance of nectar resources	**5**	**2**			**10**
Abundance of fruit resources	**5**		**1**		**5**
Community part of wildlife corridor	**10**		**1**		**10**
Community in key habitat area	**10**		**1**		**10**
Faunal refugia values	**5**		**1**		**5**
Dense shrub or groundcover	**5**	**2**			**10**
Faunal species diversity	**5**		**1**		**5**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**120**

Vegetation community- Upland Open Scrub with emergents of Swamp Mahogany in areas of impeded drainage					
Does the vegetation community support known threatened fauna species or endangered populations			**yes**		
Does the vegetation community type constitute a community of local ecological significance			**yes**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**		**1**		**10**
Abundance of dead trees\Stags	**10**		**1**		**10**
Any caves, mines or tunnels presence	**5**			**0**	**0**
Presence of wet areas\water bodies	**10**	**2**			**20**
Abundance of rocks or escarpments	**5**			**0**	**0**
Abundance of fallen timber or logs	**5**	**2**			**10**
Abundance of nectar resources	**5**	**2**			**10**
Abundance of fruit resources	**5**	**2**			**10**
Community part of wildlife corridor	**10**		**1**		**10**
Community in key habitat area	**10**	**2**			**20**
Faunal refugia values	**5**		**1**		**5**
Dense shrub or groundcover	**5**	**2**			**10**
Faunal species diversity	**5**		**1**		**5**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**125**

Vegetation community- Woodland/Tall Forest on upper slopes of Alum Mountain volcanics					
Does the vegetation community support known threatened fauna species or endangered populations			**yes**		
Does the vegetation community type constitute a community of local ecological significance			**no**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**		**1**		**10**
Abundance of dead trees\Stags	**10**		**1**		**10**
Any caves, mines or tunnels presence	**5**	**2**			**10**
Presence of wet areas\water bodies	**10**			**0**	**0**
Abundance of rocks or escarpments	**5**	**2**			**10**
Abundance of fallen timber or logs	**5**	**2**			**10**
Abundance of nectar resources	**5**		**1**		**5**
Abundance of fruit resources	**5**		**1**		**5**
Community part of wildlife corridor	**10**		**1**		**10**
Community in key habitat area	**10**		**1**		**10**
Faunal refugia values	**5**	**2**			**10**
Dense shrub or groundcover	**5**		**1**		**5**
Faunal species diversity	**5**		**1**		**5**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**105**

*NB The cliff faces and summit areas of Alum Mountain supports a unique type of flora.

Vegetation community- Riparian Tall Forest on alluvium along Frys Creek					
Does the vegetation community support known threatened fauna species or endangered populations			**yes**		
Does the vegetation community type constitute a community of local ecological significance			**yes**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**		**1**		**10**
Abundance of dead trees\Stags	**10**		**1**		**10**
Any caves, mines or tunnels presence	**5**			**0**	**0**
Presence of wet areas\water bodies	**10**	**2**			**20**
Abundance of rocks or escarpments	**5**			**0**	**0**
Abundance of fallen timber or logs	**5**		**1**		**5**
Abundance of nectar resources	**5**	**2**			**10**
Abundance of fruit resources	**5**		**1**		**5**
Community part of wildlife corridor	**10**	**2**			**20**
Community in key habitat area	**10**		**1**		**10**
Faunal refugia values	**5**	**2**			**10**
Dense shrub or groundcover	**5**	**2**			**10**
Faunal species diversity	**5**		**1**		**5**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**120**

Vegetation community- Woodland/Forest on Alum Mountain 33ubs33dri over coastal plains and slopes					
Does the vegetation community support known threatened fauna species or endangered populations			**yes**		
Does the vegetation community type constitute a community of local ecological significance			**no**		
Subjective scoring system					
Attribute	**Weighting**	**High**	**Moderate**	**Low**	**Score**
Abundance of hollows	**10**	**2**			**20**
Abundance of dead trees\Stags	**10**		**1**		**10**
Any caves, mines or tunnels presence	**5**			**0**	**0**
Presence of wet areas\water bodies	**10**		**1**		**10**
Abundance of rocks or escarpments	**5**			**0**	**0**
Abundance of fallen timber or logs	**5**	**2**			**10**
Abundance of nectar resources	**5**	**2**			**10**
Abundance of fruit resources	**5**		**1**		**5**
Community part of wildlife corridor	**10**		**1**		**5**
Community in key habitat area	**10**		**1**		**5**
Faunal refugia values	**5**	**2**			**10**
Dense shrub or groundcover	**5**		**1**		**5**
Faunal species diversity	**5**		**1**		**5**
Structural complexity of habitat	**5**		**1**		**5**
				Total score	**100**

APPENDIX 6 – ATTRIBUTE SHEETS FOR VEGETATION COMMUNITIES.

VEGETATION COMMUNITY; Group 1 Stunted Forest on Alum Mountain Volcanics

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10	2			20
Floral Species Diversity	5			0	0
Complexity of Structure	5			0	0
Recovery Potential	10	2			20
Representation in Locality	10	2 (0-20ha)			20
Potential Presence of Threatened Flora	10			0	0
Potential Presence of Threatened Fauna	5			0	0
TOTAL					**60**
CATEGORY	MEDIUM				

VEGETATION COMMUNITY; Group 2 Sub-community 1 Melaleuca Forest with emergents in areas of impeded drainage

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10	2			20
Floral Species Diversity	5			0	0
Complexity of Structure	5		1		5
Recovery Potential	10	2			20
Representation in Locality	10		1 (20-200ha)		10
Potential Presence of Threatened Flora	10		1		10
Potential Presence of Threatened Fauna	5	2			10
TOTAL					**75**
CATEGORY	HIGH				

VEGETATION COMMUNITY; Group 2 Sub-community 2 Upland Open Scrub with emergents of Swamp Mahogany in areas of impeded drainage

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10	2			20
Floral Species Diversity	5			0	0
Complexity of Structure	5		1		5
Recovery Potential	10	2			20
Representation in Locality	10	2 (0-20ha)			20
Potential Presence of Threatened Flora	10		1		10
Potential Presence of Threatened Fauna	5	2			10
TOTAL					**85**
CATEGORY	HIGH				

VEGETATION COMMUNITY; Group 4 Woodland/Tall Forest on upper slopes of Alum Mountain 35ubs35dri

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10		1		10
Floral Species Diversity	5			0	0
Complexity of Structure	5			0	0
Recovery Potential	10	2			20
Representation in Locality	10		1 (20-200ha)		10
Potential Presence of Threatened Flora	10		1		10
Potential Presence of Threatened Fauna	5		2		10
TOTAL					**60**
CATEGORY	MEDIUM				

VEGETATION COMMUNITY; Group 3 Woodland/Forest on Alum Mountain over coastal plains and slopes

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10		1		10
Floral Species Diversity	5		1		5
Complexity of Structure	5		1		5
Recovery Potential	10	2			20
Representation in Locality	10		1 (20-200ha)		10
Potential Presence of Threatened Flora	10		1		10
Potential Presence of Threatened Fauna	5		1		5
TOTAL					**65**
CATEGORY	MEDIUM				

VEGETATION COMMUNITY; Group 5 Riparian Tall Forest on alluvium along Frys Creek

Attribute	Weight	High (2)	Moderate (1)	Low (0)	Score
Degree of Naturalness	10		1		10
Floral Species Diversity	5			0	0
Complexity of Structure	5		1		5
Recovery Potential	10	2			20
Representation in Locality	10	2 (0-20ha)			20
Potential Presence of Threatened Flora	10		1		10
Potential Presence of Threatened Fauna	5		2		10
TOTAL					**75**
CATEGORY	High				

APPENDIX 7 – LETTERS FROM NATIONAL HERBARIUM OF NEW SOUTH WALES

ROYAL BOTANIC GARDENS SYDNEY

Mr Robert PAYNE
Ecological Surveys and Management
15 Mountain-Ash Way
Umina Beach, NSW 2257
AUSTRALIA

Inquiry No: 14385
Botanical.Is@rbgsyd.nsw.gov.au
Fax No: (02) 9251 1952
Ph No: (02) 9231 8111
Date: 7 January 2009

Dear Mr PAYNE,

In reply to your inquiry of 09-Dec-08 the following information is supplied:

Thankyou for the *Callistemon acuminatus* specimen. This specimen has been retained by the herbarium. The other specimen is *Einadia hastata*. There is no charge for this enquiry.

Thank you for your inquiry.

Yours sincerely

Barbara Wiecek
Identification Botanist
Botanical Information Service

PlantNET

Go to our online Botanical Information Services at plantnet.rbgsyd.nsw.gov.au to find out more about plants of New South Wales

The Botanical Information Email address is Botanical.Is@rbgsyd.nsw.gov.au
Mrs Macquaries Road Sydney NSW 2000 Australia • Telephone (02) 9231 8111 • Fax (02) 9251 1952

ROYAL BOTANIC GARDENS SYDNEY

National Herbarium of New South Wales

Mr Robert PAYNE
Ecological Surveys and Management
15 Mountain-Ash Way
Umina Beach, NSW 2257
AUSTRALIA

Inquiry No: 15865
Botanical.Is@rbgsyd.nsw.gov.au
Fax No: (02) 9251 1952
Ph No: (02) 9231 8111
Date: 25 August 2010

Dear Mr PAYNE,

Thank you for your enquiry of 20-Aug-10. We are happy to provide the following information:

Thank you for the donation of *Pleurosorus rutifolius* to our collection Dr Elizabeth Brown confirmed the identification.

Thank you for your enquiry.

Yours sincerely

Barbara Wiecek
Identification Botanist
Botanical Information Service

APPENDIX 8 – TEMPERATURE-RELATIVE HUMIDITY SUMMARY

7-7-2010 to 10-7-2010

12
TypeTinytag PLUS2 °C/%RHTinytag PLUS2 °C/%RH
S/N311425311425
DescriptionBULAHDELAH_07-07-2010BULAHDELAH_07-07-2010
PropertyTemperatureHumidity
Logging Started2010-07-07 09:59:512010-07-07 09:59:51
Logging Ended2010-07-10 07:29:512010-07-10 07:29:51
Logging Duration250200 s250200 s
Download OperatorRobert PayneRobert Payne
Capacity65536 bytes65536 bytes
Trigger StartNoNo
Start Delay70080 s70080 s
Interval900 s900 s
Stop ModeWhen fullWhen full
Last Calibrated2005-11-152005-11-15
Offload Time2010-07-10 07:29:442010-07-10 07:29:44
Number of Readings279279
Stop ReasonUser Requested StopUser Requested Stop
Logging ModeSeconds ModeSeconds Mode
Statistics Start Time2010-07-07 09:52:212010-07-07 09:52:21
Statistics End Time2010-07-09 14:29:512010-07-09 14:29:51
Minimum Reading7.1 °C75.7 %RH
Maximum Reading16.4 °C100.0 %RH
Average Reading11.8 °C98.5 %RH

16-2-2010 to 18-2-2010

22
TypeTinytag PLUS2 °C/%RHTinytag PLUS2 °C/%RH
S/N311425311425
DescriptionBULAHDELAH_16-02-2010BULAHDELAH_16-02-2010
PropertyTemperatureHumidity
Logging Started2010-02-16 09:00:052010-02-16 09:00:05
Logging Ended2010-02-18 12:30:052010-02-18 12:30:05
Logging Duration185400 s185400 s
Download OperatorRobert PayneRobert Payne
Capacity65536 bytes65536 bytes
Trigger StartNoNo
Start Delay81000 s81000 s
Interval900 s900 s
Stop ModeWhen fullWhen full
Last Calibrated2005-11-152005-11-15
Offload Time2010-02-18 12:38:582010-02-18 12:38:58
Number of Readings207207
Stop ReasonUser Requested StopUser Requested Stop
Logging ModeSeconds ModeSeconds Mode
Statistics Start Time2010-02-16 10:30:002010-02-16 10:30:00
Statistics End Time2010-02-18 09:30:002010-02-18 09:30:00
Minimum Reading17.3 °C53.1 %RH
Maximum Reading29.9 °C100.0 %RH
Average Reading20.9 °C89.7 %RH

1-12-2008 to 5-12-2008

32

Type	Tinytag PLUS2 °C/%RH	Tinytag PLUS2 °C/%RH
S/N	311425	311425
Description	BULAHDELAH STAGE 2	BULAHDELAH STAGE 2
Property	Temperature	Humidity
Logging Started	2008-12-01 10:00:32	2008-12-01 10:00:32
Logging Ended	2008-12-05 11:00:32	2008-12-05 11:00:32
Logging Duration	349200 s	349200 s
Download Operator	Robert Payne	Robert Payne
Capacity	65536 bytes	65536 bytes
Trigger Start	No	No
Start Delay	90720 s	90720 s
Interval	900 s	900 s
Stop Mode	When full	When full
Last Calibrated	2005-11-15	2005-11-15
Offload Time	2008-12-05 11:04:19	2008-12-05 11:04:19
Number of Readings	389	389
Stop Reason	User Requested Stop	User Requested Stop
Logging Mode	Seconds Mode	Seconds Mode
Statistics Start Time	2008-12-01 10:00:00	2008-12-01 10:00:00
Statistics End Time	2008-12-05 07:45:00	2008-12-05 07:45:00
Minimum Reading	15.0 °C	0.0 %RH
Maximum Reading	32.6 °C	100.0 %RH
Average Reading	22.2 °C	73.2 %RH

Curriculum Vitae

Robert Payne

Education

1991 – 1996 Master of Natural Resources University of New England, Armidale.

Major: Wildlife Management, Flora and Fauna Survey Techniques and Biological Conservation

Thesis: The Distribution and Reproductive Ecology of *Syzygium paniculatum* and *Syzygium 41ubs41dr* (Myrtaceae) in the Gosford-Wyong Region.

1985 – 1987 Master of Letters University of New England, Armidale

Major: The Ecology of Australian Ecosystems

Thesis: Structure, Floristics and Ecology of the Gully Rainforests on the Central Coast of NSW

1977 – 1983 Bachelor of Arts University of New England, Armidale

Major: Botany, Ecology, Physical Geography and Archaeology

1994 – Identification of the Plants of the Tropical Rainforest James Cook University.

1999 – Introduction to Analysis SPSS Sydney

1999 – Introduction to the SPSS Statistical Package SPSS Sydney

2003 - Wildlife Photography Course – Ms. Esther Beaton Wildlife Photographer

2004 – Computer Aided Drafting Hunter Institute of TAFE - Introduction & Intermediate Courses.

2005 – Introduction to GIS Course – Hunter Institute of TAFE-

2004 Educational Tours

- Undertook World Wildlife Fund educational tour of Peruvian Andes at high altitude and upper Amazon ecosystems involving archaeology, geography, flora and fauna.

Skills

Terrestrial ecology

- Flora and fauna surveys
- Management of rare and threatened species
- Management of ecosystems
- Aquatic surveys and wetland assessment
- Water quality interpretation
- Environmental impact assessment
- Environmental auditing
- Field Research

Project management

- Environmental design/management
- Erosion and sediment control
- Construction supervision involving natural ecosystems
- Air photo interpretation and surveying
- Vegetation Mapping

Professional Experience

1990 – PresentRobert Payne- Ecological Surveys & Management Umina Beach, NSW

Director, Wildlife Ecologist

Research into Rare Plant and Weed Ecology: for several species including the Black-eyed Susan, the Somersby Mintbush the Tranquility Mint Bush, the Parramatta Red Gum and the Magenta Lilly Pilly. Cattail on the Umina sandplain and Alligator Weed in the Everglades Wetlands.

Major Flora and Fauna Survey Projects, Natural Areas: Colongra Wetlands (2 year FF survey), Bouddi National Park, Wyrrabalong National Park, Wamberal Lagoon Nature Reserve, Munmorah State Recreation Area, Lower Hunter-Central Coast Regional Survey, Southern Tablelands Regional Survey, Warragamba Special Area Wilderness Area Regional Surveys and 2005 Lower Hunter Central Coast extended area surveys into the Great Lakes Shire. Wyong Rivers and Ourimbah Creek Valleys Rivercare Surveys. 2007 extended regional surveys for Bulahdelah, Great Lakes and Crowdy Head areas. Brisbane Water National Park Eastern Pigmy Possum, small mammal and microbat specific surveys. Specific microbat and small mammal surveys of Rileys and Pelican Island Nature Reserves. Alum Mountain Bulahdelah flora, fauna & vegetation mapping.

Infrastructure; Jolls Bridge to Calga Sydney Newcastle Freeway, Western Sydney Land Snail Survey for Western Sydney Orbitor, Guyra to Ebor Main Road Survey and the Brunswick to Yelgin By-pass. Rainforests of the Gosford LGA. Jolls Bridge to Hawkesbury River & Hawkesbury River to Kariong for the Sydney Newcastle Freeway widening. Pacific Highway Kariong to West Gosford flora & fauna surveys.

Major Construction Projects: All major Telstra optical fibre cable projects in NSW 1990-1998, especially the major telecommunication lines between Sydney to Brisbane1, 2 & 3. Tuggerah Public School, Munmorah High School, Bluehaven Public School and the Lakes Anglican Grammar School Stages 1, 2 & 3 (current). East Hills to Sydney 330 KV underground transmission line and Wyong to Sterland Trig Transmission line. Arterial road and watermain between Wyong and the new Warnervale City. Foresters Glen Retirement Village ongoing. Amy Close Wyong Development Complex and Somersby Fields (mining) threatened plant species investigation.

Vegetation Mapping: Local Government Areas of Lismore, Tweed, Port Stephens, Taree, Richmond River, Wyong and Campbelltown. Bouddi National Park, Wyrrabalong National Park, Wamberal Lagoon Nature Reserve, Munmorah State Recreation Area, Wallarah Peninula and the Colongra Wetlands. Coastal wetlands in the Gosford LGA using high powered GPS technology and Rainforests in the Gosford LGA using aerial photography and computer transformation technology. Botanist for NPWS Lower Hunter Central Coast regional surveys 2000 & 2003, Southern Region surveys 2001, Warragamba Wilderness areas 2002 and Lower Hunter Central Coast Region in 2005, then Port Stephens, Taree and Great Lakes areas in 2006 and 2007. Rockdale, Canterbury and Marrickville Council urban vegetation remnant survey.

Catchment/Natural Area and Wetland Management Plans: Colongra Wetlands (Munmorah Delta Electricity), Porters Creek Wetland, Salts Bay Reserve Swansea, Bongon Lagoon, Munmorah, Tuggerah Oxbows and Kahibah Lagoon Management Plan. Everglades Wetland Management Plan.

Environmental Impact Assessment, Species Impact Assessment and **Environmental Management Plans** for various environmental rehabilitation, strategic and construction projects: Includes underground coal mining at North Wyong, Wallarah Peninsula and Gwandalan, Hawks Nest threatened species Plan of Management, Dorrigo Escarpment World Heritage Area, Meryla State Forest Optical Fibre Cable, Crowdy Head, Nobbys, Sugarloaf Point and Norah Head lighthouses, widening of Henderson Road and foreshore Saratoga, Ettymalong Creek Umina, Voyager Point, Karuah International Raceway, new Warnervale City, Saratoga Oval, Avoca Beach Public School, Brisbane Water cycleway, aquatic, flora and fauna surveys for new wharf & seawall proposals for the Brisbane Water, new arterial road between Wyong and Warnervale and cycleway between Saratoga to Kincumber. Proposed coal mining under Lake

Macquarie- involved major aquatic and depth surveys. Revegetation of EEC at Pat Morley Oval tip refuse site at Bateau Bay. Horsefield Bay to Correa Bay cycleway.

Expert testimony – Represented Great Lakes Council at Commission of Inquiry into Hawks Nest North proposal on threatened species, Swamp Mahogany Forests and wetlands; Represented Planning NSW at Donaldson Mine Commission of Enquiry; Land & Environment Court proceedings for at least 40 different matters.

Professional Associations & Committees

- **Regional Vegetation Committee** – *NSW Department of Land & Water Conservation* as Scientist to deal with changes to Native Vegetation Act (former role). Now Expert Panel Committee Representative for Regional Vegetation Mapping *(current Hunter Councils)*.
- **Coastal Open Space Committee** – *Gosford City Council (former member)*
- **Heritage Committee** – *Gosford City Council (former member)*
- **Wetlands Committee-** Community Environmental Network (current member)
- **Crommelin Native Arboretum;Pearl Beach- (**current since inauguration 1976)

Publications

- New Findings of the rare tree, *Syzygium paniculatum, Cunninghamia 1991-Vol.1(4).*
- Prediction of the habitat for *Tetratheca juncea* in the Munmorah Area near Wyong, New South Wales. *Cunninghamia, 1993 Vol 3(1).*
- A Proposal for the Protection of Remnant Rainforest in the Gosford and Wyong Areas. *Document prepared for the National Parks Association of New South Wales Inc. 1993.*
- Nutrient Filter Research Report:The Effectiveness of Nutrient Filters in managing Stormwater Pollution. *Report prepared for Gosford City Council, 1993; Co-author with Murray Hastings-Andrews Neil.*
- Mapping Vegetation of Sensitive Habitats. *Paper presented at the Conference 'The Status of the Koala in 1996' held at Tweed Heads – August 19-21 1996.*
- Wetland Vegetation Mapping using a Global Positioning System. *Cunninghamia Vol 5(3) 1998.*
- *Tetratheca juncea smith:*Conservation Management Plan. *Published document prepared on behalf of NSW National Parks and Wildlife Service, Lake Macquarie City Council and Broken Hill Proprietary.*
- Trials to eradicate Cumbungi from Ettymalong Creek, Umina Beach, New South Wales. *Ecological Management and Restoration 2001 Vol. 3(2)*
- Soil and groundwater relationships and impacts on Parramatta Red Gum Woodland at Porters Creek Wetland, New South Wales. NSW DECC (in prog.).
- Brisbane Water Sandplain Vegetation- reconstructing its past extent and planning for its future. *Cunninghamia 2010 11(3): 295-318*

Curriculum Vitae
Kristan Dowdle

QUALIFICATIONS / LICENSES

- **2007** - Fire Protection Authority of Australia (FPAA) Member.
- **2006 – 2007** Graduate Diploma in Design for Bush Fire Prone Areas , University of Western Sydney
- **2000 – 2003** Bachelor of Environmental Science (Biology) Schoolof Environmental and Life Sciences ,The University of Newcastle Australia

  •Planning for Bushfire Prone Areas (UTS)
  •Class HC Driver's Licence
  •NSW Scientific Licence No. S11333

EMPLOYMENT HISTORY

Pre 2000: Survey Assistant Wayne Dowdle & Associates, NSW

2000 – 2003: Life Sciences student at Newcastle University.

Nov 2003 – Jun 2004: Environmental Scientist Aargus Pty Ltd, based at Petersham, NSW.

July 2004 – current: Environmental and Bushfire Consultant with Clarke Dowdle & Associates

SKILLS SUMMARY

Ecology and biology

The primary areas of expertise are in the fields of native vegetation and threatened flora and fauna species identification and mapping; revegetation, rehabilitation and monitoring; and, fauna and flora habitat identification. Current and past projects and research involve the following:

- Flora and fauna assessments for single lots, industrial, commercial sub-divisions, rural/residential developments and Environmental Assessments (EA);
- Project ecologist consulting for large scale native vegetation rehabilitation and restoration;
- Floristic and vegetation classification surveys;
- Mapping and classifying natural vegetation communities;
- Vegetation/Bushland Management Plans;
- Environmental Management Plans; and
- Weed Management Plans.

Bushfire

The primary areas of expertise are in development planning and design; bushfire behaviour and threat assessments; bushfire hazard reduction assessments; bushfire, landscape and emergency management plans. Current and past projects and research involve the following:

- Bushfire threat assessments for proposed residential and industrial sub-divisions, rural and urban residential developments, constraints reports and Environmental Assessments;
- Bushfire Management Plans and Emergency Evacuation Plans.

LEGISLATION

Familiar with the relevant requirements of the following:

Commonwealth
Environment Protection & Biodiversity Conservation Act 1999
Environment Protection and Biodiversity Conservation Regulations 2000

NSW
Environmental Planning and Assessment Act 1979
Native Vegetation Act 2003
National Parks and Wildlife Act 1974
Threatened Species Conservation Act 1995
Threatened Species Conservation Amendment Act 2002
Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006
Rural Fire Services Act 1997
Relevant State Environment Planning Policies.
Local government requirements and relevant Flora and Fauna Survey Guidelines.

CURRENT AND PAST ECOLOGICAL CONSULTANCY PROJECTS

Selected project examples are provided under the following headings, which describe the primary field of investigation.

- Flora and Fauna Assessment s
- Vegetation Management Plans
- Threatened Plants and Endangered Ecological Communities
- Bushfire Assessments
- Translocation of Threatened Plants
- Vegetation Community Classification and Mapping
- Fauna Monitoring
- Local Environmental Study

Experience

Some of the projects are 45ubs45drica below:

- **Plan of Management of the Re-Introduction of the Green and Golden Bell Frog (*Littoria aurea)* to the Short Wetlands Centre, 2002 (*University of Newcastle*).** This study examined the specific habitat requirements of the endangered Green and Golden Bell Frog (*Littoria aurea)*. The study involved

extensive frog surveys, water quality monitoring, weather monitoring as well as a extensive literature search and review. The final report made recommendations to the Shortland Wetland Centre on habitat requirements of the species so as the centre could design an artificial wetland area for the species to be reintroduced.

- **Effects of Forest Management Practices on Stream Frog communities (*University of Newcastle*).** This study involved frog survey work in the Watagans Mountains focussing on the Giant Barred Frog (*Mixophyes iterates)*. The survey work and subsequent data was used for a published report by Harko Weldman.

- **Flora and Fauna Surveys for Industrial, Rural and Residential Developments within the Gosford, Hornsby, Great Lakes, Lake Macquarie, Ku-ring-gai, Penrith, Pittwater and Wyong Shires (*Clarke Dowdle & Associates*).** The studies have involved extensive field work (flora and fauna surveys) and desktop studies (literature search and review). Each assessment has reviewed the environmental impacts of the proposed development and has delivered conclusions and recommendations.

- **Vegetation/Bushland Management Plans**. Projects involved flora assessment of the subject property for species and densities, and applying a management plan to aid in protection, preservation and weed control.

- **Bushfire Threat and Protection Assessments** Includes assessments of individual lots with industrial, rural/ residential and residential zones, sub-division design and additions and alterations to existing dwellings through NSW

APPENDIX 10- DATASHEETS

Record Number	Survey ID	SiteNumber	Locality Description	AMG Zone	AMG Easting	AMG Northing	AGD Latitude	AGD Longitude	MGA Zone	MGA Easting	MGA Northing	GDA Latitude	GDA Longitude	Location Coord Type	GPS	Location Accuracy	Geodetic Datum	Map Number	Botanical Division	Land System Code	Land Unit Code	Cons Area Code	District Code	Local Gov Area	Tenure Code	Stratification	Marker
25184	ALUMMTN	ALUMMTN1	Northern tip of Alum Mountain next to and north of trig station	56	426733	6414179	-32.40692067	152.2208704	56	426836	6414369	-32.40532887	152.2219798	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		
25185	ALUMMTN	ALUMMTN2	Summit of Alum Mountain Bulahdelah	56	426815	6413832	-32.41005613	152.2217155	56	426918	6414022	-32.40846433	152.2228249	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25186	ALUMMTN	ALUMSLO1	Bulahdelah State Forest on slopes of Alum Mountain	56	427418	6413884	-32.4096265	152.2281315	56	427521	6414074	-32.40803465	152.2292409	Grid ref	FALSE	100	GDA	9333-3-S	NC				013	Great Lake	SF		None
25187	ALUMMTN	BULF1	Private property below Alum Mountain Bulahdelah Score 1-7	56	427054	6415007	-32.39947283	152.2243475	56	427157	6415197	-32.39788099	152.2254568	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25188	ALUMMTN	BULF2	Private property below Alum Mountain Bulahdelah Score 1-7	56	427000	6415032	-32.39924378	152.2237753	56	427103	6415222	-32.39765195	152.2248846	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25189	ALUMMTN	BULF3	Private property below Alum Mountain Bulahdelah	56	426959	6415004	-32.39949367	152.2233372	56	427062	6415194	-32.39790184	152.2244465	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25190	ALUMMTN	BULST2EEC	Bulahdelah near Alum Mountain	56	427454	6416044	-32.39014474	152.2268868	56	427557	6416234	-32.38855287	152.2297891	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25191	ALUMMTN	BULST2HS	Bulahdelah Mountain	56	427371	6414491	-32.40414805	152.2276784	56	427474	6414681	-32.4025562	152.2287877	Grid ref	FALSE	100	GDA	9333-3-S							PP		None
25192	ALUMMTN	BULST2SL1	Alum Mountain Bulahdelah	56	427665	6415825	-32.39213392	152.2309064	56	427768	6416015	-32.39054203	152.2320156	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25193	ALUMMTN	BULST2SL2	Alum Mountain Bulahdelah	56	427324	6415441	-32.3955756	152.2272516	56	427427	6415631	-32.39398374	152.2283608	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None

25194	ALUMMTN	BULST2SL3	Alum Mountain Bulahdelah	56	427290	6414729	-32.4019	152.2268354	56	427393	6414919	-32.4004	152.2279447	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25195	ALUMMTN	BULST2SL4	Alum Mountain Bulahdelah	56	427102	6414452	-32.4044	152.2248151	56	427205	6414642	-32.4028	152.2259245	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None
25196	ALUMMTN	BULST2SL5	Alum Mountain Bulahdelah	56	426798	6414696	-32.4022	152.2216016	56	426901	6414886	-32.4006	152.2227011	Grid ref	FALSE	100	GDA	9333	NC				063	3400	PP		None
25197	ALUMMTN	BULST2SL6	Bulahdelah near Alum Mountain	56	427319	6415126	-32.3984	152.2271742	56	427422	6415316	-32.3968	152.2282835	Grid ref	FALSE	100	GDA	9333	CC				063	3400	PP		None
25198	ALUMMTN	BULST2SU1	Alum Mountain at Bulahdelah	56	426894	6413418	-32.4137	152.2225235	56	426997	6413608	-32.4122	152.2236033	Grid ref	FALSE	100	GDA	9333-3-S	NC						VCL		None
25199	ALUMMTN	BULST2SU2	Alum Mountain at Bulahdelah	56	426687	6414366	-32.4052	152.2203958	56	426790	6414556	-32.4036	152.2215052	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25200	ALUMMTN	BULST2US1	Buladelah Alum Mountain	56	427167	6413873	-32.4097	152.2254617	56	427270	6414063	-32.4081	152.2265711	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25201	ALUMMTN	BULST2US2	Alum Mountain at Bulahdelah	56	427248	6413442	-32.4136	152.2262898	56	427351	6413632	-32.4120	152.2273106	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25202	ALUMMTN	BULST2US3	Alum Mountain at Bulahdelah	56	427076	6413391	-32.4140	152.2244568	56	427179	6413581	-32.4124	152.2255941	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25203	ALUMMTN	BULST2US4	Midslope of Alum Mountain at Bulahdelah	56	426957	6414008	-32.4084	152.223239	56	427060	6414198	-32.4068	152.2243604	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25204	ALUMMTN	BULST2US5	Alum Mountain at Bulahdelah	56	426822	6414125	-32.4074	152.2218126	56	426925	6414315	-32.4058	152.2229215	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25205	ALUMMTN	BULST2US6	Alum Mountain at Bulahdelah	56	426694	6414558	-32.4034	152.2204851	56	426797	6414748	-32.4019	152.2215945	Grid ref	FALSE	100	GDA	9333-3-S	NC						PP		None
25206	ALUMMTN	FRYSCK1	Frys Creek Bulahdelah below Alum Mountain north side	56	427346	6414975	-32.3997	152.2274497	56	427449	6415165	-32.3981	152.2285859	Grid ref	FALSE	100	GDA	9333-3-S	NC				013	GREAT LAKE	SF		None
25207	ALUMMTN	FRYSCK2	Frys Creek east of Pacific	56	427342	6415004	-32.3995	152.2274094	56	427445	6415194	-32.3979	152.2285187	Grid ref	FALSE	100	GDA	9333-3-S	NC				013	GREAT LAKE	SF		None

			Highway under Alum Mountain																										
25208	ALUMMTN	RPBULSL1	Slope below Alum Mountain Bulahdelah Score 1-7	56	427173	6414981	-32.39971514	152.2256108	56	427276	6415171	-32.39812329	152.2267201	Grid ref	FALSE	100	GDA	9333-3-S	NC				063	3400	PP		None

Record Number	Entry Order	Survey ID	Site Number	Replicate Number	Sub Plot Number	Species Number	Family	Genus	Species	Infra Specific Rank	Infra Specific Name	Display Name	Stratum	Growth Form	Number	Lower Height	Upper Height	Cover Score	Abundance Score	Percentage Cover	Flowering	Fruiting
571261	9	ALUMMTN	ALUMMTN1	1	1	1094	Apiaceae	Actinotus	helianthi			Actinotus helianthi	-	-				2			-	-
571262	3	ALUMMTN	ALUMMTN1	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-				2			-	-
571263	13	ALUMMTN	ALUMMTN1	1	1	3393	Lamiaceae	Plectranthus	argentatus			Plectranthus argentatus	-	-				1			-	-
571264	10	ALUMMTN	ALUMMTN1	1	1	3413	Lamiaceae	Prostanthera	incisa			Prostanthera incisa	-	-				1			-	-
571265	12	ALUMMTN	ALUMMTN1	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-				1			-	-
571266	1	ALUMMTN	ALUMMTN1	1	1	4242	Myrtaceae	Lophostemon	confertus			Lophostemon confertus	-	-				3			-	-
571267	4	ALUMMTN	ALUMMTN1	1	1	6688	Myrtaceae	Syncarpia	glomulifera			Syncarpia glomulifera	-	-				2			-	-
571268	7	ALUMMTN	ALUMMTN1	1	1	6864	Poaceae	Cleistochloa	rigida			Cleistochloa rigida	-	-				2			-	-
571269	5	ALUMMTN	ALUMMTN1	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-				2			-	-
571270	11	ALUMMTN	ALUMMTN1	1	1	7709	Lomandraceae	Lomandra	confertifolia	49ubs.	Pallida	Lomandra confertifolia subsp. pallida	-	-				2			-	-
571271	2	ALUMMTN	ALUMMTN1	1	1	8599	Myrtaceae	Eucalyptus	carnea			Eucalyptus carnea	-	-				2			-	-
571272	8	ALUMMTN	ALUMMTN1	1	1	9177	Myrtaceae	Leptospermum	polyanthum			Leptospermum polyanthum	-	-				1			-	-
571273	6	ALUMMTN	ALUMMTN1	1	1	9309	Xanthorrhoeaceae	Xanthorrhoea	latifolia	49ubs.	Latifolia	Xanthorrhoea latifolia subsp. latifolia	-	-				1			-	-

571274	14	ALUM MTN	ALUM MTN1	1	1	AMYE	Loranthaceae	Amyema	spp.			Amyema spp.	-	-		1		-	-
571275	12	ALUM MTN	ALUM MTN2	1	1	1010	Acanthaceae	Pseuderanthemum	variabile			Pseuderanthemum variabile	-	-		1		-	-
571276	10	ALUM MTN	ALUM MTN2	1	1	11953	Myrsinaceae	Myrsine	variabilis			Myrsine variabilis	-	-		3		-	-
571277	7	ALUM MTN	ALUM MTN2	1	1	1492	Asteraceae	Helichrysum	elatum			Helichrysum elatum	-	-		3		-	-
571278	23	ALUM MTN	ALUM MTN2	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-		1		-	-
571279	29	ALUM MTN	ALUM MTN2	1	1	2242	Crassulaceae	Crassula	sieberiana			Crassula sieberiana	-	-		1		-	-
571280	24	ALUM MTN	ALUM MTN2	1	1	2448	Cyperaceae	Isolepis	cernua			Isolepis cernua	-	-		1		-	-
571281	16	ALUM MTN	ALUM MTN2	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-		2		-	-
571282	8	ALUM MTN	ALUM MTN2	1	1	3393	Lamiaceae	Plectranthus	argentatus			Plectranthus argentatus	-	-		4		-	-
571283	6	ALUM MTN	ALUM MTN2	1	1	3771	Fabaceae (Mimosoideae)	Acacia	falcata			Acacia falcata	-	-		2		-	-
571284	11	ALUM MTN	ALUM MTN2	1	1	3924	Moraceae	Ficus	rubiginosa			Ficus rubiginosa	-	-		1		-	-
571285	3	ALUM MTN	ALUM MTN2	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-		1		-	-
571286	4	ALUM MTN	ALUM MTN2	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-		2		-	-
571287	5	ALUM MTN	ALUM MTN2	1	1	4242	Myrtaceae	Lophostemon	confertus			Lophostemon confertus	-	-		1		-	-
571288	21	ALUM MTN	ALUM MTN2	1	1	4774	Poaceae	Aristida	warburgii			Aristida warburgii	-	-		1		-	-
571289	17	ALUM MTN	ALUM MTN2	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-		1		-	-
571290	14	ALUM MTN	ALUM MTN2	1	1	5703	Rubiaceae	Pomax	umbellata			Pomax umbellata	-	-		1		-	-
571291	27	ALUM MTN	ALUM MTN2	1	1	5860	Santalaceae	Exocarpos	cupressiformis			Exocarpos cupressiformis	-	-		1		-	-
571292	13	ALUM MTN	ALUM MTN2	1	1	6281	Vitaceae	Cayratia	clematidea			Cayratia clematidea	-	-		2		-	-
571293	26	ALUM MTN	ALUM MTN2	1	1	6285	Vitaceae	Cissus	opaca			Cissus opaca	-	-		1		-	-
571294	15	ALUM MTN	ALUM MTN2	1	1	6304	Lomandraceae	Lomandra	glauca			Lomandra glauca	-	-		3		-	-
571295	18	ALUM MTN	ALUM MTN2	1	1	6311	Lomandraceae	Lomandra	multiflora	50ubs.	Multiflora	Lomandra multiflora	-	-		1		-	-

												subsp. multiflora						
571296	28	ALUM MTN	ALUM MTN2	1	1	8018	Dryopteridaceae	Lastreopsis	microsora	51ubs.	Microsora	Lastreopsis microsora subsp. microsora	-	-	1	-	-
571297	25	ALUM MTN	ALUM MTN2	1	1	8163	Polypodiaceae	Pyrrosia	rupestris			Pyrrosia rupestris	-	-	1	-	-
571298	22	ALUM MTN	ALUM MTN2	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 51ubs51drical var. major	-	-	2	-	-
571299	2	ALUM MTN	ALUM MTN2	1	1	8599	Myrtaceae	Eucalyptus	carnea			Eucalyptus carnea	-	-	2	-	-
571300	9	ALUM MTN	ALUM MTN2	1	1	8801	Rutaceae	Correa	reflexa	var.	reflexa	Correa reflexa var. reflexa	-	-	2	-	-
571301	1	ALUM MTN	ALUM MTN2	1	1	9177	Myrtaceae	Leptospermum	polyanthum			Leptospermum polyanthum	-	-	1	-	-
571302	20	ALUM MTN	ALUM MTN2	1	1	CHEI	Adiantaceae	Cheilanthes	spp.			Cheilanthes spp.	-	-	1	-	-
571303	19	ALUM MTN	ALUM MTN2	1	1	CLEM	Ranunculaceae	Clematis	spp.			Clematis spp.	-	-	1	-	-
571304	73	ALUM MTN	ALUM SLO1	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	1	-	-
571305	57	ALUM MTN	ALUM SLO1	1	1	1740	Bignoniaceae	Pandorea	pandorana			Pandorea pandorana	-	-	1	-	-
571306	43	ALUM MTN	ALUM SLO1	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	4	-	-
571307	52	ALUM MTN	ALUM SLO1	1	1	2527	Dilleniaceae	Hibbertia	aspera			Hibbertia aspera	-	-	3	-	-
571308	65	ALUM MTN	ALUM SLO1	1	1	2548	Dilleniaceae	Hibbertia	scandens			Hibbertia scandens	-	-	2	-	-
571309	67	ALUM MTN	ALUM SLO1	1	1	2574	Elaeocarpaceae	Elaeocarpus	reticulatus			Elaeocarpus reticulatus	-	-	1	-	-
571310	59	ALUM MTN	ALUM SLO1	1	1	2898	Fabaceae (Faboideae)	Kennedia	rubicunda			Kennedia rubicunda	-	-	1	-	-
571311	54	ALUM MTN	ALUM SLO1	1	1	2951	Fabaceae (Faboideae)	Podolobium	ilicifolium			Podolobium ilicifolium	-	-	2	-	-
571312	70	ALUM MTN	ALUM SLO1	1	1	3002	Fabaceae (Faboideae)	Pultenaea	linophylla			Pultenaea linophylla	-	-	2	-	-
571313	58	ALUM MTN	ALUM SLO1	1	1	3188	Goodeniaceae	Goodenia	hederacea			Goodenia hederacea	-	-	1	-	-
571314	72	ALUM MTN	ALUM SLO1	1	1	3303	Iridaceae	Patersonia	sericea			Patersonia sericea	-	-	1	-	-

571315	77	ALUM MTN	ALUM SLO1	1	1	3469	Lauraceae	Cassytha	pubescens			Cassytha pubescens	-	-	1		-	-
571316	47	ALUM MTN	ALUM SLO1	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	2		-	-
571317	41	ALUM MTN	ALUM SLO1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571318	39	ALUM MTN	ALUM SLO1	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	2		-	-
571319	40	ALUM MTN	ALUM SLO1	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571320	61	ALUM MTN	ALUM SLO1	1	1	4318	Oleaceae	Notelaea	longifolia			Notelaea longifolia	-	-	2		-	-
571321	53	ALUM MTN	ALUM SLO1	1	1	4321	Oleaceae	Notelaea	ovata			Notelaea ovata	-	-	3		-	-
571322	66	ALUM MTN	ALUM SLO1	1	1	4353	Orchidaceae	Acianthus	fornicatus			Acianthus fornicatus	-	-	3		-	-
571323	64	ALUM MTN	ALUM SLO1	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	2		-	-
571324	48	ALUM MTN	ALUM SLO1	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	3		-	-
571325	56	ALUM MTN	ALUM SLO1	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	3		-	-
571326	74	ALUM MTN	ALUM SLO1	1	1	5409	Proteaceae	Hakea	dactyloides			Hakea dactyloides	-	-	1		-	-
571327	60	ALUM MTN	ALUM SLO1	1	1	5445	Proteaceae	Lomatia	silaifolia			Lomatia silaifolia	-	-	1		-	-
571328	62	ALUM MTN	ALUM SLO1	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	2		-	-
571329	44	ALUM MTN	ALUM SLO1	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	3		-	-
571330	42	ALUM MTN	ALUM SLO1	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	7		-	-
571331	69	ALUM MTN	ALUM SLO1	1	1	6214	Tremandraceae	Tetratheca	thymifolia			Tetratheca thymifolia	-	-	2		-	-
571332	46	ALUM MTN	ALUM SLO1	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	2		-	-
571333	71	ALUM MTN	ALUM SLO1	1	1	6311	Lomandraceae	Lomandra	multiflora	52ubs.	Multiflora	Lomandra multiflora subsp. multiflora	-	-	1		-	-
571334	68	ALUM MTN	ALUM SLO1	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	1		-	-
571335	76	ALUM MTN	ALUM SLO1	1	1	6402	Cyperaceae	Lepidosperma	laterale			Lepidosperma laterale	-	-	1		-	-
571336	45	ALUM MTN	ALUM SLO1	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	3		-	-

571337	51	ALUM MTN	ALUM SLO1	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	2		-	-
571338	63	ALUM MTN	ALUM SLO1	1	1	7709	Lomandraceae	Lomandra	confertifolia	53subs.	Pallida	Lomandra confertifolia subsp. pallida	-	-	1		-	-
571339	50	ALUM MTN	ALUM SLO1	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-	2		-	-
571340	55	ALUM MTN	ALUM SLO1	1	1	8216	Euphorbiaceae	Phyllanthus	hirtellus			Phyllanthus hirtellus	-	-	3		-	-
571341	49	ALUM MTN	ALUM SLO1	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 53ubs53drical var. major	-	-	3		-	-
571342	75	ALUM MTN	ALUM SLO1	1	1	9309	Xanthorrhoeaceae	Xanthorrhoea	latifolia	53subs.	Latifolia	Xanthorrhoea latifolia subsp. latifolia	-	-	1		-	-
571343	27	ALUM MTN	BULF1	1	1	1162	Apiaceae	Xanthosia	pilosa			Xanthosia pilosa	-	-	3		-	-
571344	21	ALUM MTN	BULF1	1	1	1163	Apiaceae	Xanthosia	tridentata			Xanthosia tridentata	-	-	3		-	-
571345	10	ALUM MTN	BULF1	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	1		-	-
571346	15	ALUM MTN	BULF1	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571347	34	ALUM MTN	BULF1	1	1	2465	Cyperaceae	Lepidosperma	filiforme			Lepidosperma filiforme	-	-	1		-	-
571348	22	ALUM MTN	BULF1	1	1	2527	Dilleniaceae	Hibbertia	aspera			Hibbertia aspera	-	-	2		-	-
571349	28	ALUM MTN	BULF1	1	1	2528	Dilleniaceae	Hibbertia	bracteata			Hibbertia bracteata	-	-	2		-	-
571350	18	ALUM MTN	BULF1	1	1	2605	Epacridaceae	Epacris	pulchella			Epacris pulchella	-	-	1		-	-
571351	23	ALUM MTN	BULF1	1	1	2958	Fabaceae (Faboideae)	Phyllota	phylicoides			Phyllota phylicoides	-	-	1		-	-
571352	7	ALUM MTN	BULF1	1	1	3004	Fabaceae (Faboideae)	Pultenaea	myrtoides			Pultenaea myrtoides	-	-	4		-	-
571353	17	ALUM MTN	BULF1	1	1	3023	Fabaceae (Faboideae)	Pultenaea	villosa			Pultenaea villosa	-	-	1		-	-
571354	19	ALUM MTN	BULF1	1	1	3172	Goodeniaceae	Dampiera	purpurea			Dampiera purpurea	-	-	2		-	-
571355	29	ALUM MTN	BULF1	1	1	3816	Fabaceae (Mimosoi	Acacia	longifolia			Acacia longifolia	-	-	2		-	-

							deae)											
571356	9	ALUM MTN	BULF1	1	1	3834	Fabaceae (Mimosoideae)	Acacia	myrtifolia			Acacia myrtifolia	-	-	3	-	-
571357	8	ALUM MTN	BULF1	1	1	3885	Fabaceae (Mimosoideae)	Acacia	terminalis			Acacia terminalis	-	-	3	-	-
571358	32	ALUM MTN	BULF1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1	-	-
571359	25	ALUM MTN	BULF1	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	1	-	-
571360	2	ALUM MTN	BULF1	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2	-	-
571361	16	ALUM MTN	BULF1	1	1	4261	Myrtaceae	Melaleuca	sieberi			Melaleuca sieberi	-	-	1	-	-
571362	12	ALUM MTN	BULF1	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	3	-	-
571363	20	ALUM MTN	BULF1	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2	-	-
571364	30	ALUM MTN	BULF1	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	2	-	-
571365	4	ALUM MTN	BULF1	1	1	5462	Proteaceae	Persoonia	levis			Persoonia levis	-	-	1	-	-
571366	6	ALUM MTN	BULF1	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	3	-	-
571367	14	ALUM MTN	BULF1	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	2	-	-
571368	11	ALUM MTN	BULF1	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	3	-	-
571369	33	ALUM MTN	BULF1	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2	-	-
571370	24	ALUM MTN	BULF1	1	1	6700	Phormiaceae	Dianella	caerulea	var.	caerulea	Dianella caerulea var. caerulea	-	-	1	-	-
571371	5	ALUM MTN	BULF1	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	54ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	6	-	-
571372	31	ALUM MTN	BULF1	1	1	8216	Euphorbiaceae	Phyllanthus	hirtellus			Phyllanthus hirtellus	-	-	2	-	-
571373	1	ALUM MTN	BULF1	1	1	8694	Myrtaceae	Eucalyptus	resinifera	54ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	1	-	-

571374	13	ALUM MTN	BULF1	1	1	9309	Xanthorrhoeaceae	Xanthorrhoea	latifolia	55subs.	Latifolia	Xanthorrhoea latifolia subsp. latifolia	-	-	2		-	-
571375	3	ALUM MTN	BULF1	1	1	9687	Myrtaceae	Corymbia	gummifera			Corymbia gummifera	-	-	1		-	-
571376	26	ALUM MTN	BULF1	1	1	AMYE	Loranthaceae	Amyema	spp.			Amyema spp.	-	-	1		-	-
571377	14	ALUM MTN	BULF2	1	1	1162	Apiaceae	Xanthosia	pilosa			Xanthosia pilosa	-	-	2		-	-
571378	35	ALUM MTN	BULF2	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	1		-	-
571379	10	ALUM MTN	BULF2	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	1		-	-
571380	36	ALUM MTN	BULF2	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	1		-	-
571381	24	ALUM MTN	BULF2	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571382	23	ALUM MTN	BULF2	1	1	2527	Dilleniaceae	Hibbertia	aspera			Hibbertia aspera	-	-	2		-	-
571383	22	ALUM MTN	BULF2	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	55subs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	3		-	-
571384	28	ALUM MTN	BULF2	1	1	2605	Epacridaceae	Epacris	pulchella			Epacris pulchella	-	-	1		-	-
571385	34	ALUM MTN	BULF2	1	1	2649	Epacridaceae	Monotoca	scoparia			Monotoca scoparia	-	-	2		-	-
571386	13	ALUM MTN	BULF2	1	1	3188	Goodeniaceae	Goodenia	hederacea			Goodenia hederacea	-	-	1		-	-
571387	26	ALUM MTN	BULF2	1	1	3248	Haloragaceae	Gonocarpus	teucrioides			Gonocarpus teucrioides	-	-	2		-	-
571388	29	ALUM MTN	BULF2	1	1	3303	Iridaceae	Patersonia	sericea			Patersonia sericea	-	-	1		-	-
571389	33	ALUM MTN	BULF2	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	1		-	-
571390	7	ALUM MTN	BULF2	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	5		-	-
571391	21	ALUM MTN	BULF2	1	1	3834	Fabaceae (Mimosoideae)	Acacia	myrtifolia			Acacia myrtifolia	-	-	3		-	-
571392	25	ALUM MTN	BULF2	1	1	3893	Fabaceae (Mimosoideae)	Acacia	ulicifolia			Acacia ulicifolia	-	-	2		-	-

571393	4	ALUM MTN	BULF2	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	2		-	-
571394	3	ALUM MTN	BULF2	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	1		-	-
571395	2	ALUM MTN	BULF2	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571396	15	ALUM MTN	BULF2	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	2		-	-
571397	17	ALUM MTN	BULF2	1	1	4748	Poaceae	Andropogon	virginicus			Andropogon virginicus	-	-	1		-	-
571398	12	ALUM MTN	BULF2	1	1	4774	Poaceae	Aristida	warburgii			Aristida warburgii	-	-	1		-	-
571399	16	ALUM MTN	BULF2	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2		-	-
571400	5	ALUM MTN	BULF2	1	1	5462	Proteaceae	Persoonia	levis			Persoonia levis	-	-	2		-	-
571401	37	ALUM MTN	BULF2	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	1		-	-
571402	8	ALUM MTN	BULF2	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	4		-	-
571403	18	ALUM MTN	BULF2	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	3		-	-
571404	39	ALUM MTN	BULF2	1	1	6182	Thymelaeaceae	Pimelea	linifolia			Pimelea linifolia	-	-	1		-	-
571405	20	ALUM MTN	BULF2	1	1	6214	Tremandraceae	Tetratheca	thymifolia			Tetratheca thymifolia	-	-	2		-	-
571406	32	ALUM MTN	BULF2	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	1		-	-
571407	19	ALUM MTN	BULF2	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	2		-	-
571408	9	ALUM MTN	BULF2	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	3		-	-
571409	38	ALUM MTN	BULF2	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	1		-	-
571410	6	ALUM MTN	BULF2	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	56ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	6		-	-
571411	30	ALUM MTN	BULF2	1	1	8216	Euphorbiaceae	Phyllanthus	hirtellus			Phyllanthus hirtellus	-	-	2		-	-
571412	1	ALUM MTN	BULF2	1	1	8694	Myrtaceae	Eucalyptus	resinifera	56ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	1		-	-
571413	27	ALUM MTN	BULF2	1	1	8956	Cyperaceae	Ptilothrix	deusta			Ptilothrix deusta	-	-	3		-	-

571414	11	ALUM MTN	BULF2	1	1	9175	Sterculiaceae	Lasiopetalum	ferrugineum	var.	cordatum	Lasiopetalum ferrugineum var. cordatum	-	-	1		-	-
571415	31	ALUM MTN	BULF2	1	1	9309	Xanthorrhoeaceae	Xanthorrhoea	latifolia	57ubs.	Latifolia	Xanthorrhoea latifolia subsp. latifolia	-	-	1		-	-
571416	13	ALUM MTN	BULF3	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	2		-	-
571417	5	ALUM MTN	BULF3	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	1		-	-
571418	14	ALUM MTN	BULF3	1	1	2475	Cyperaceae	Lepidosperma	urophorum			Lepidosperma urophorum	-	-	1		-	-
571419	15	ALUM MTN	BULF3	1	1	2556	Droseraceae	Drosera	auriculata			Drosera auriculata	-	-	1		-	-
571420	9	ALUM MTN	BULF3	1	1	2599	Epacridaceae	Epacris	microphylla			Epacris microphylla	-	-	3		-	-
571421	22	ALUM MTN	BULF3	1	1	2868	Fabaceae (Faboideae)	Gompholobium	pinnatum			Gompholobium pinnatum	-	-	2		-	-
571422	8	ALUM MTN	BULF3	1	1	3004	Fabaceae (Faboideae)	Pultenaea	myrtoides			Pultenaea myrtoides	-	-	3		-	-
571423	25	ALUM MTN	BULF3	1	1	3236	Haemodoraceae	Haemodorum	planifolium			Haemodorum planifolium	-	-	1		-	-
571424	17	ALUM MTN	BULF3	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	4		-	-
571425	18	ALUM MTN	BULF3	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	3		-	-
571426	16	ALUM MTN	BULF3	1	1	3893	Fabaceae (Mimosoideae)	Acacia	ulicifolia			Acacia ulicifolia	-	-	1		-	-
571427	4	ALUM MTN	BULF3	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	2		-	-
571428	1	ALUM MTN	BULF3	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	1		-	-
571429	3	ALUM MTN	BULF3	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571430	2	ALUM MTN	BULF3	1	1	4171	Myrtaceae	Eucalyptus	robusta			Eucalyptus robusta	-	-	2		-	-
571431	6	ALUM MTN	BULF3	1	1	4261	Myrtaceae	Melaleuca	sieberi			Melaleuca sieberi	-	-	1		-	-
571432	10	ALUM MTN	BULF3	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	3		-	-

571433	11	ALUM MTN	BULF3	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	2		-	-
571434	12	ALUM MTN	BULF3	1	1	5751	Rutaceae	Boronia	polygalifolia			Boronia polygalifolia	-	-	3		-	-
571435	28	ALUM MTN	BULF3	1	1	6182	Thymelaeaceae	Pimelea	linifolia			Pimelea linifolia	-	-	1		-	-
571436	29	ALUM MTN	BULF3	1	1	6266	Violaceae	Hybanthus	monopetalus			Hybanthus monopetalus	-	-	1		-	-
571437	27	ALUM MTN	BULF3	1	1	6304	Lomandraceae	Lomandra	glauca			Lomandra glauca	-	-	1		-	-
571438	26	ALUM MTN	BULF3	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	1		-	-
571439	23	ALUM MTN	BULF3	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2		-	-
571440	24	ALUM MTN	BULF3	1	1	7057	Goodeniaceae	Goodenia	paniculata			Goodenia paniculata	-	-	2		-	-
571441	20	ALUM MTN	BULF3	1	1	7245	Myrtaceae	Leptospermum	polygalifolium			Leptospermum polygalifolium	-	-	2		-	-
571442	21	ALUM MTN	BULF3	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	2		-	-
571443	7	ALUM MTN	BULF3	1	1	8956	Cyperaceae	Ptilothrix	deusta			Ptilothrix deusta	-	-	7		-	-
571444	19	ALUM MTN	BULF3	1	1	GAHN	Cyperaceae	Gahnia	spp.			Gahnia spp.	-	-	2		-	-
571445	24	ALUM MTN	BULST 2EEC	1	1	1128	Apiaceae	Hydrocotyle	laxiflora			Hydrocotyle laxiflora	-	-	1		-	-
571446	12	ALUM MTN	BULST 2EEC	1	1	2231	Convolvulaceae	Polymeria	calycina			Polymeria calycina	-	-	2		-	-
571447	17	ALUM MTN	BULST 2EEC	1	1	2299	Cyperaceae	Baumea	juncea			Baumea juncea	-	-	2		-	-
571448	22	ALUM MTN	BULST 2EEC	1	1	2302	Cyperaceae	Baumea	rubiginosa			Baumea rubiginosa	-	-	2		-	-
571449	9	ALUM MTN	BULST 2EEC	1	1	2465	Cyperaceae	Lepidosperma	filiforme			Lepidosperma filiforme	-	-	5		-	-
571450	10	ALUM MTN	BULST 2EEC	1	1	2664	Epacridaceae	Woollsia	pungens			Woollsia pungens	-	-	2		-	-
571451	19	ALUM MTN	BULST 2EEC	1	1	2938	Fabaceae (Faboideae)	Mirbelia	rubiifolia			Mirbelia rubiifolia	-	-	1		-	-
571452	11	ALUM MTN	BULST 2EEC	1	1	3004	Fabaceae (Faboideae)	Pultenaea	myrtoides			Pultenaea myrtoides	-	-	2		-	-
571453	23	ALUM MTN	BULST 2EEC	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	1		-	-

571454	5	ALUM MTN	BULST 2EEC	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	2	-	-
571455	4	ALUM MTN	BULST 2EEC	1	1	4015	Myrtaceae	Callistemon	salignus			Callistemon salignus	-	-	3	-	-
571456	2	ALUM MTN	BULST 2EEC	1	1	4258	Myrtaceae	Melaleuca	nodosa			Melaleuca nodosa	-	-	4	-	-
571457	3	ALUM MTN	BULST 2EEC	1	1	4261	Myrtaceae	Melaleuca	sieberi			Melaleuca sieberi	-	-	3	-	-
571458	21	ALUM MTN	BULST 2EEC	1	1	4266	Myrtaceae	Melaleuca	thymifolia			Melaleuca thymifolia	-	-	2	-	-
571459	13	ALUM MTN	BULST 2EEC	1	1	4419	Orchidaceae	Cymbidium	suave			Cymbidium suave	-	-	1	-	-
571460	7	ALUM MTN	BULST 2EEC	1	1	4749	Poaceae	Anisopogon	avenaceus			Anisopogon avenaceus	-	-	2	-	-
571461	8	ALUM MTN	BULST 2EEC	1	1	4946	Poaceae	Entolasia	marginata			Entolasia marginata	-	-	6	-	-
571462	20	ALUM MTN	BULST 2EEC	1	1	5121	Poaceae	Poa	annua			Poa annua	-	-	1	-	-
571463	16	ALUM MTN	BULST 2EEC	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2	-	-
571464	14	ALUM MTN	BULST 2EEC	1	1	6700	Phormiaceae	Dianella	caerulea	var.	caerulea	Dianella caerulea var. caerulea	-	-	2	-	-
571465	18	ALUM MTN	BULST 2EEC	1	1	7355	Anthericaceae	Tricoryne	elatior			Tricoryne elatior	-	-	2	-	-
571466	6	ALUM MTN	BULST 2EEC	1	1	8199	Myrtaceae	Leptospermum	polygalifolium	59ubs.	Cismontanum	Leptospermum polygalifolium subsp. cismontanum	-	-	2	-	-
571467	15	ALUM MTN	BULST 2EEC	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 59ubs59drical var. major	-	-	1	-	-
571468	1	ALUM MTN	BULST 2EEC	1	1	8694	Myrtaceae	Eucalyptus	resinifera	59ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	3	-	-
571469	6	ALUM MTN	BULST 2HS	1	1	11817	Cyperaceae	Gahnia	sieberi			Gahnia sieberi	-	-	6	-	-
571470	9	ALUM MTN	BULST 2HS	1	1	2302	Cyperaceae	Baumea	rubiginosa			Baumea rubiginosa	-	-	3	-	-
571471	14	ALUM MTN	BULST 2HS	1	1	2471	Cyperaceae	Lepidosperma	neesii			Lepidosperma neesii	-	-	3	-	-
571472	18	ALUM MTN	BULST 2HS	1	1	2559	Droseraceae	Drosera	peltata			Drosera peltata	-	-	1	-	-

571473	17	ALUM MTN	BULST 2HS	1	1	3528	Blandfordiaceae	Blandfordia	grandiflora			Blandfordia grandiflora	-	-	1		-	-
571474	12	ALUM MTN	BULST 2HS	1	1	3769	Fabaceae (Mimosoideae)	Acacia	elongata			Acacia elongata	-	-	1		-	-
571475	3	ALUM MTN	BULST 2HS	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	2		-	-
571476	4	ALUM MTN	BULST 2HS	1	1	4010	Myrtaceae	Callistemon	pachyphyllus			Callistemon pachyphyllus	-	-	5		-	-
571477	1	ALUM MTN	BULST 2HS	1	1	4171	Myrtaceae	Eucalyptus	robusta			Eucalyptus robusta	-	-	3		-	-
571478	13	ALUM MTN	BULST 2HS	1	1	4221	Myrtaceae	Leptospermum	juniperinum			Leptospermum juniperinum	-	-	1		-	-
571479	11	ALUM MTN	BULST 2HS	1	1	4419	Orchidaceae	Cymbidium	suave			Cymbidium suave	-	-	1		-	-
571480	5	ALUM MTN	BULST 2HS	1	1	5347	Proteaceae	Banksia	robur			Banksia robur	-	-	4		-	-
571481	7	ALUM MTN	BULST 2HS	1	1	8057	Blechnaceae	Blechnum	indicum			Blechnum indicum	-	-	4		-	-
571482	10	ALUM MTN	BULST 2HS	1	1	8093	Gleicheniaceae	Gleichenia	rupestris			Gleichenia rupestris	-	-	4		-	-
571483	8	ALUM MTN	BULST 2HS	1	1	8199	Myrtaceae	Leptospermum	polygalifolium	60ubs.	Cismontanum	Leptospermum polygalifolium subsp. cismontanum	-	-	2		-	-
571484	2	ALUM MTN	BULST 2HS	1	1	8694	Myrtaceae	Eucalyptus	resinifera	60ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	1		-	-
571485	16	ALUM MTN	BULST 2HS	1	1	CASY	Lauraceae	Cassytha	spp.			Cassytha spp.	-	-	1		-	-
571486	15	ALUM MTN	BULST 2HS	1	1	XYRI	Xyridaceae	Xyris	spp.			Xyris spp.	-	-	1		-	-
571487	20	ALUM MTN	BULST 2SL1	1	1	1185	Apocynaceae	Parsonsia	straminea			Parsonsia straminea	-	-	1		-	-
571488	3	ALUM MTN	BULST 2SL1	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	3		-	-
571489	10	ALUM MTN	BULST 2SL1	1	1	2441	Cyperaceae	Gahnia	radula			Gahnia radula	-	-	6		-	-
571490	13	ALUM MTN	BULST 2SL1	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	60ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	3		-	-

571491	18	ALUM MTN	BULST 2SL1	1	1	2664	Epacridaceae	Woollsia	pungens			Woollsia pungens	-	-	3		-	-
571492	19	ALUM MTN	BULST 2SL1	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	2		-	-
571493	11	ALUM MTN	BULST 2SL1	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	2		-	-
571494	8	ALUM MTN	BULST 2SL1	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	3		-	-
571495	7	ALUM MTN	BULST 2SL1	1	1	3893	Fabaceae (Mimosoideae)	Acacia	ulicifolia			Acacia ulicifolia	-	-	2		-	-
571496	2	ALUM MTN	BULST 2SL1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571497	4	ALUM MTN	BULST 2SL1	1	1	4015	Myrtaceae	Callistemon	salignus			Callistemon salignus	-	-	3		-	-
571498	25	ALUM MTN	BULST 2SL1	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571499	5	ALUM MTN	BULST 2SL1	1	1	4258	Myrtaceae	Melaleuca	nodosa			Melaleuca nodosa	-	-	3		-	-
571500	6	ALUM MTN	BULST 2SL1	1	1	4261	Myrtaceae	Melaleuca	sieberi			Melaleuca sieberi	-	-	3		-	-
571501	17	ALUM MTN	BULST 2SL1	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	2		-	-
571502	14	ALUM MTN	BULST 2SL1	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	5		-	-
571503	21	ALUM MTN	BULST 2SL1	1	1	5066	Poaceae	Panicum	simile			Panicum simile	-	-	1		-	-
571504	16	ALUM MTN	BULST 2SL1	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	2		-	-
571505	23	ALUM MTN	BULST 2SL1	1	1	5751	Rutaceae	Boronia	polygalifolia			Boronia polygalifolia	-	-	1		-	-
571506	12	ALUM MTN	BULST 2SL1	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	2		-	-
571507	15	ALUM MTN	BULST 2SL1	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2		-	-
571508	24	ALUM MTN	BULST 2SL1	1	1	7355	Anthericaceae	Tricoryne	elatior			Tricoryne elatior	-	-	1		-	-
571509	9	ALUM MTN	BULST 2SL1	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	61ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	4		-	-
571510	1	ALUM MTN	BULST 2SL1	1	1	8694	Myrtaceae	Eucalyptus	resinifera	61ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	7		-	-

571511	22	ALUM MTN	BULST 2SL1	1	1	8755	Goodeniaceae	Goodenia	heterophylla	62ubs.	Eglandulosa	Goodenia heterophylla subsp. eglandulosa	-	-	1	-	-
571512	12	ALUM MTN	BULST 2SL2	1	1	1162	Apiaceae	Xanthosia	pilosa			Xanthosia pilosa	-	-	1	-	-
571513	17	ALUM MTN	BULST 2SL2	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	2	-	-
571514	3	ALUM MTN	BULST 2SL2	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	2	-	-
571515	24	ALUM MTN	BULST 2SL2	1	1	2664	Epacridaceae	Woollsia	pungens			Woollsia pungens	-	-	1	-	-
571516	15	ALUM MTN	BULST 2SL2	1	1	3014	Fabaceae (Faboideae)	Pultenaea	retusa			Pultenaea retusa	-	-	3	-	-
571517	16	ALUM MTN	BULST 2SL2	1	1	3023	Fabaceae (Faboideae)	Pultenaea	villosa			Pultenaea villosa	-	-	2	-	-
571518	25	ALUM MTN	BULST 2SL2	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	1	-	-
571519	9	ALUM MTN	BULST 2SL2	1	1	3301	Iridaceae	Patersonia	glabrata			Patersonia glabrata	-	-	3	-	-
571520	19	ALUM MTN	BULST 2SL2	1	1	3533	Colchicaceae	Burchardia	umbellata			Burchardia umbellata	-	-	1	-	-
571521	22	ALUM MTN	BULST 2SL2	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	1	-	-
571522	8	ALUM MTN	BULST 2SL2	1	1	3574	Anthericaceae	Thysanotus	tuberosus			Thysanotus tuberosus	-	-	3	-	-
571523	18	ALUM MTN	BULST 2SL2	1	1	3834	Fabaceae (Mimosoideae)	Acacia	myrtifolia			Acacia myrtifolia	-	-	3	-	-
571524	2	ALUM MTN	BULST 2SL2	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1	-	-
571525	1	ALUM MTN	BULST 2SL2	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	3	-	-
571526	14	ALUM MTN	BULST 2SL2	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1	-	-
571527	23	ALUM MTN	BULST 2SL2	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2	-	-
571528	4	ALUM MTN	BULST 2SL2	1	1	5345	Proteaceae	Banksia	oblongifolia			Banksia oblongifolia	-	-	3	-	-
571529	27	ALUM MTN	BULST 2SL2	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	1	-	-
571530	6	ALUM MTN	BULST 2SL2	1	1	5409	Proteaceae	Hakea	dactyloides			Hakea dactyloides	-	-	3	-	-

571531	5	ALUM MTN	BULST 2SL2	1	1	5462	Proteaceae	Persoonia	levis			Persoonia levis	-	-	2		-	-
571532	7	ALUM MTN	BULST 2SL2	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	2		-	-
571533	20	ALUM MTN	BULST 2SL2	1	1	5751	Rutaceae	Boronia	polygalifolia			Boronia polygalifolia	-	-	1		-	-
571534	10	ALUM MTN	BULST 2SL2	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	2		-	-
571535	11	ALUM MTN	BULST 2SL2	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2		-	-
571536	26	ALUM MTN	BULST 2SL2	1	1	7057	Goodeniaceae	Goodenia	paniculata			Goodenia paniculata	-	-	2		-	-
571537	21	ALUM MTN	BULST 2SL2	1	1	8755	Goodeniaceae	Goodenia	heterophylla	63ubs.	Eglandulosa	Goodenia heterophylla subsp. eglandulosa	-	-	1		-	-
571538	13	ALUM MTN	BULST 2SL2	1	1	8771	Xanthorrhoeaceae	Xanthorrhoea	fulva			Xanthorrhoea fulva	-	-	2		-	-
571539	12	ALUM MTN	BULST 2SL3	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	2		-	-
571540	20	ALUM MTN	BULST 2SL3	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-	1		-	-
571541	7	ALUM MTN	BULST 2SL3	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	63ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	3		-	-
571542	17	ALUM MTN	BULST 2SL3	1	1	2664	Epacridaceae	Woollsia	pungens			Woollsia pungens	-	-	1		-	-
571543	11	ALUM MTN	BULST 2SL3	1	1	3014	Fabaceae (Faboideae)	Pultenaea	retusa			Pultenaea retusa	-	-	1		-	-
571544	19	ALUM MTN	BULST 2SL3	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	1		-	-
571545	13	ALUM MTN	BULST 2SL3	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	1		-	-
571546	2	ALUM MTN	BULST 2SL3	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	2		-	-
571547	3	ALUM MTN	BULST 2SL3	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	1		-	-
571548	1	ALUM MTN	BULST 2SL3	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	3		-	-
571549	8	ALUM MTN	BULST 2SL3	1	1	4230	Myrtaceae	Leptospermum	myrtifolium			Leptospermum myrtifolium	-	-	2		-	-

571550	16	ALUM MTN	BULST 2SL3	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1		-	-
571551	18	ALUM MTN	BULST 2SL3	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2		-	-
571552	25	ALUM MTN	BULST 2SL3	1	1	5121	Poaceae	Poa	annua			Poa annua	-	-	1		-	-
571553	9	ALUM MTN	BULST 2SL3	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	2		-	-
571554	15	ALUM MTN	BULST 2SL3	1	1	5409	Proteaceae	Hakea	dactyloides			Hakea dactyloides	-	-	2		-	-
571555	21	ALUM MTN	BULST 2SL3	1	1	5462	Proteaceae	Persoonia	levis			Persoonia levis	-	-	1		-	-
571556	5	ALUM MTN	BULST 2SL3	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	3		-	-
571557	23	ALUM MTN	BULST 2SL3	1	1	5751	Rutaceae	Boronia	polygalifolia			Boronia polygalifolia	-	-	1		-	-
571558	4	ALUM MTN	BULST 2SL3	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	7		-	-
571559	24	ALUM MTN	BULST 2SL3	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571560	10	ALUM MTN	BULST 2SL3	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2		-	-
571561	22	ALUM MTN	BULST 2SL3	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	1		-	-
571562	6	ALUM MTN	BULST 2SL3	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	64ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	5		-	-
571563	14	ALUM MTN	BULST 2SL3	1	1	8770	Xanthorrhoeaceae	Xanthorrhoea	latifolia			Xanthorrhoea latifolia	-	-	2		-	-
571564	11	ALUM MTN	BULST 2SL4	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	2		-	-
571565	24	ALUM MTN	BULST 2SL4	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	1		-	-
571566	8	ALUM MTN	BULST 2SL4	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	2		-	-
571567	14	ALUM MTN	BULST 2SL4	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	64ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	2		-	-
571568	16	ALUM MTN	BULST 2SL4	1	1	2664	Epacridaceae	Woollsia	pungens			Woollsia pungens	-	-	2		-	-

571569	9	ALUM MTN	BULST 2SL4	1	1	3014	Fabaceae (Faboideae)	Pultenaea	retusa			Pultenaea retusa	-	-	2		-	-
571570	7	ALUM MTN	BULST 2SL4	1	1	3023	Fabaceae (Faboideae)	Pultenaea	villosa			Pultenaea villosa	-	-	3		-	-
571571	19	ALUM MTN	BULST 2SL4	1	1	3172	Goodeniaceae	Dampiera	purpurea			Dampiera purpurea	-	-	1		-	-
571572	21	ALUM MTN	BULST 2SL4	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	1		-	-
571573	13	ALUM MTN	BULST 2SL4	1	1	3301	Iridaceae	Patersonia	glabrata			Patersonia glabrata	-	-	1		-	-
571574	26	ALUM MTN	BULST 2SL4	1	1	3467	Lauraceae	Cassytha	glabella			Cassytha glabella	-	-	1		-	-
571575	27	ALUM MTN	BULST 2SL4	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	2		-	-
571576	2	ALUM MTN	BULST 2SL4	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	2		-	-
571577	1	ALUM MTN	BULST 2SL4	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	3		-	-
571578	3	ALUM MTN	BULST 2SL4	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	3		-	-
571579	29	ALUM MTN	BULST 2SL4	1	1	4321	Oleaceae	Notelaea	ovata			Notelaea ovata	-	-	1		-	-
571580	18	ALUM MTN	BULST 2SL4	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2		-	-
571581	15	ALUM MTN	BULST 2SL4	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2		-	-
571582	5	ALUM MTN	BULST 2SL4	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	3		-	-
571583	4	ALUM MTN	BULST 2SL4	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	3		-	-
571584	12	ALUM MTN	BULST 2SL4	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	2		-	-
571585	17	ALUM MTN	BULST 2SL4	1	1	6402	Cyperaceae	Lepidosperma	laterale			Lepidosperma laterale	-	-	2		-	-
571586	23	ALUM MTN	BULST 2SL4	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571587	30	ALUM MTN	BULST 2SL4	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	1		-	-
571588	20	ALUM MTN	BULST 2SL4	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	1		-	-
571589	28	ALUM MTN	BULST 2SL4	1	1	8379	Cyperaceae	Lepidosperma	elatius			Lepidosperma elatius	-	-	1		-	-

571590	25	ALUM MTN	BULST 2SL4	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 66ubs66drical var. major	-	-	1		-	-
571591	22	ALUM MTN	BULST 2SL4	1	1	8755	Goodeniaceae	Goodenia	heterophylla	66ubs.	Eglandulosa	Goodenia heterophylla subsp. eglandulosa	-	-	1		-	-
571592	10	ALUM MTN	BULST 2SL4	1	1	8956	Cyperaceae	Ptilothrix	deusta			Ptilothrix deusta	-	-	3		-	-
571593	33	ALUM MTN	BULST 2SL5	1	1	1010	Acanthaceae	Pseuderanthemum	variabile			Pseuderanthemum variabile	-	-	2		-	-
571594	34	ALUM MTN	BULST 2SL5	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	1		-	-
571595	6	ALUM MTN	BULST 2SL5	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-	2		-	-
571596	17	ALUM MTN	BULST 2SL5	1	1	2431	Cyperaceae	Gahnia	aspera			Gahnia aspera	-	-	1		-	-
571597	36	ALUM MTN	BULST 2SL5	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-	1		-	-
571598	18	ALUM MTN	BULST 2SL5	1	1	2441	Cyperaceae	Gahnia	radula			Gahnia radula	-	-	2		-	-
571599	11	ALUM MTN	BULST 2SL5	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	66ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	2		-	-
571600	24	ALUM MTN	BULST 2SL5	1	1	2695	Euphorbiaceae	Breynia	oblongifolia			Breynia oblongifolia	-	-	1		-	-
571601	8	ALUM MTN	BULST 2SL5	1	1	2827	Fabaceae (Faboideae)	Daviesia	ulicifolia			Daviesia ulicifolia	-	-	1		-	-
571602	26	ALUM MTN	BULST 2SL5	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	2		-	-
571603	25	ALUM MTN	BULST 2SL5	1	1	2860	Fabaceae (Faboideae)	Glycine	clandestina			Glycine clandestina	-	-	1		-	-
571604	29	ALUM MTN	BULST 2SL5	1	1	3002	Fabaceae (Faboideae)	Pultenaea	linophylla			Pultenaea linophylla	-	-	2		-	-
571605	7	ALUM MTN	BULST 2SL5	1	1	3023	Fabaceae (Faboideae)	Pultenaea	villosa			Pultenaea villosa	-	-	3		-	-
571606	22	ALUM MTN	BULST 2SL5	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	2		-	-
571607	20	ALUM MTN	BULST 2SL5	1	1	3467	Lauraceae	Cassytha	glabella			Cassytha glabella	-	-	2		-	-

571608	2	ALUM MTN	BULST 2SL5	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571609	31	ALUM MTN	BULST 2SL5	1	1	4087	Myrtaceae	Eucalyptus	eugenioides			Eucalyptus eugenioides	-	-	1		-	-
571610	5	ALUM MTN	BULST 2SL5	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	1		-	-
571611	3	ALUM MTN	BULST 2SL5	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	1		-	-
571612	1	ALUM MTN	BULST 2SL5	1	1	4162	Myrtaceae	Eucalyptus	propinqua			Eucalyptus propinqua	-	-	1		-	-
571613	32	ALUM MTN	BULST 2SL5	1	1	4321	Oleaceae	Notelaea	ovata			Notelaea ovata	-	-	2		-	-
571614	14	ALUM MTN	BULST 2SL5	1	1	4624	Oxalidaceae	Oxalis	radicosa			Oxalis radicosa	-	-	2		-	-
571615	23	ALUM MTN	BULST 2SL5	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1		-	-
571616	19	ALUM MTN	BULST 2SL5	1	1	4748	Poaceae	Andropogon	virginicus			Andropogon virginicus	-	-	1		-	-
571617	12	ALUM MTN	BULST 2SL5	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	3		-	-
571618	38	ALUM MTN	BULST 2SL5	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-	1		-	-
571619	28	ALUM MTN	BULST 2SL5	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2		-	-
571620	9	ALUM MTN	BULST 2SL5	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	1		-	-
571621	13	ALUM MTN	BULST 2SL5	1	1	5751	Rutaceae	Boronia	polygalifolia			Boronia polygalifolia	-	-	1		-	-
571622	16	ALUM MTN	BULST 2SL5	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	1		-	-
571623	21	ALUM MTN	BULST 2SL5	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	3		-	-
571624	30	ALUM MTN	BULST 2SL5	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571625	15	ALUM MTN	BULST 2SL5	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	1		-	-
571626	10	ALUM MTN	BULST 2SL5	1	1	7709	Lomandraceae	Lomandra	confertifolia	67ubs.	Pallida	Lomandra confertifolia subsp. pallida	-	-	2		-	-
571627	37	ALUM MTN	BULST 2SL5	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-	1		-	-
571628	35	ALUM MTN	BULST 2SL5	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 67ubs67drical var. major	-	-	1		-	-
571629	4	ALUM MTN	BULST 2SL5	1	1	8694	Myrtaceae	Eucalyptus	resinifera	67ubs.	Hemilampra	Eucalyptus resinifera	-	-	2		-	-

												subsp. hemilampra							
571630	27	ALUM MTN	BULST 2SL5	1	1	8755	Goodeniaceae	Goodenia	heterophylla	68ubs.	Eglandulosa	Goodenia heterophylla subsp. eglandulosa	-	-	2	-	-		
571631	8	ALUM MTN	BULST 2SL6	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-	1	-	-		
571632	11	ALUM MTN	BULST 2SL6	1	1	3004	Fabaceae (Faboideae)	Pultenaea	myrtoides			Pultenaea myrtoides	-	-	3	-	-		
571633	6	ALUM MTN	BULST 2SL6	1	1	3023	Fabaceae (Faboideae)	Pultenaea	villosa			Pultenaea villosa	-	-	3	-	-		
571634	13	ALUM MTN	BULST 2SL6	1	1	3188	Goodeniaceae	Goodenia	hederacea			Goodenia hederacea	-	-	2	-	-		
571635	16	ALUM MTN	BULST 2SL6	1	1	3247	Haloragaceae	Gonocarpus	tetragynus			Gonocarpus tetragynus	-	-	2	-	-		
571636	19	ALUM MTN	BULST 2SL6	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	1	-	-		
571637	4	ALUM MTN	BULST 2SL6	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	3	-	-		
571638	2	ALUM MTN	BULST 2SL6	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1	-	-		
571639	5	ALUM MTN	BULST 2SL6	1	1	4015	Myrtaceae	Callistemon	salignus			Callistemon salignus	-	-	3	-	-		
571640	3	ALUM MTN	BULST 2SL6	1	1	4261	Myrtaceae	Melaleuca	sieberi			Melaleuca sieberi	-	-	2	-	-		
571641	14	ALUM MTN	BULST 2SL6	1	1	4266	Myrtaceae	Melaleuca	thymifolia			Melaleuca thymifolia	-	-	2	-	-		
571642	21	ALUM MTN	BULST 2SL6	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	5	-	-		
571643	20	ALUM MTN	BULST 2SL6	1	1	5066	Poaceae	Panicum	simile			Panicum simile	-	-	1	-	-		
571644	15	ALUM MTN	BULST 2SL6	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	3	-	-		
571645	18	ALUM MTN	BULST 2SL6	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	1	-	-		
571646	10	ALUM MTN	BULST 2SL6	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	2	-	-		
571647	22	ALUM MTN	BULST 2SL6	1	1	7057	Goodeniaceae	Goodenia	paniculata			Goodenia paniculata	-	-	1	-	-		
571648	17	ALUM MTN	BULST 2SL6	1	1	7355	Anthericaceae	Tricoryne	elatior			Tricoryne elatior	-	-	1	-	-		
571649	7	ALUM MTN	BULST 2SL6	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	68ubs.	Polygalifolium	Leptospermum	-	-	4	-	-		

												polygalifolium subsp. polygalifolium						
571650	12	ALUM MTN	BULST 2SL6	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 69ubs69drical var. major	-	-	1		-	-
571651	1	ALUM MTN	BULST 2SL6	1	1	8694	Myrtaceae	Eucalyptus	resinifera	69ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	2		-	-
571652	9	ALUM MTN	BULST 2SL6	1	1	8956	Cyperaceae	Ptilothrix	deusta			Ptilothrix deusta	-	-	7		-	-
571653	5	ALUM MTN	BULST 2SU1	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	1		-	-
571654	9	ALUM MTN	BULST 2SU1	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	3		-	-
571655	11	ALUM MTN	BULST 2SU1	1	1	2542	Dilleniaceae	Hibbertia	obtusifolia			Hibbertia obtusifolia	-	-	2		-	-
571656	17	ALUM MTN	BULST 2SU1	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	3		-	-
571657	16	ALUM MTN	BULST 2SU1	1	1	3393	Lamiaceae	Plectranthus	argentatus			Plectranthus argentatus	-	-	2		-	-
571658	6	ALUM MTN	BULST 2SU1	1	1	3771	Fabaceae (Mimosoideae)	Acacia	falcata			Acacia falcata	-	-	2		-	-
571659	1	ALUM MTN	BULST 2SU1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571660	2	ALUM MTN	BULST 2SU1	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	2		-	-
571661	3	ALUM MTN	BULST 2SU1	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	2		-	-
571662	13	ALUM MTN	BULST 2SU1	1	1	4435	Orchidaceae	Dendrobium	teretifolium			Dendrobium teretifolium	-	-	1		-	-
571663	12	ALUM MTN	BULST 2SU1	1	1	6022	Smilacaceae	Smilax	glyciphylla			Smilax glyciphylla	-	-	1		-	-
571664	7	ALUM MTN	BULST 2SU1	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	3		-	-
571665	15	ALUM MTN	BULST 2SU1	1	1	6632	Davalliaceae	Davallia	solida	var.	pyxidata	Davallia solida var. pyxidata	-	-	1		-	-
571666	14	ALUM MTN	BULST 2SU1	1	1	8163	Polypodiaceae	Pyrrosia	rupestris			Pyrrosia rupestris	-	-	1		-	-
571667	10	ALUM MTN	BULST 2SU1	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	3		-	-
571668	8	ALUM MTN	BULST 2SU1	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 69ubs69drical var. major	-	-	1		-	-

571669	4	ALUM MTN	BULST 2SU1	1	1	8843	Xanthorrhoeaceae	Xanthorrhoea	malacophylla			Xanthorrhoea malacophylla	-	-	2		-	-
571670	4	ALUM MTN	BULST 2SU2	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571671	9	ALUM MTN	BULST 2SU2	1	1	2266	Cunoniaceae	Aphanopetalum	resinosum			Aphanopetalum resinosum	-	-	4		-	-
571672	13	ALUM MTN	BULST 2SU2	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	1		-	-
571673	17	ALUM MTN	BULST 2SU2	1	1	2542	Dilleniaceae	Hibbertia	obtusifolia			Hibbertia obtusifolia	-	-	1		-	-
571674	14	ALUM MTN	BULST 2SU2	1	1	2827	Fabaceae (Faboideae)	Daviesia	ulicifolia			Daviesia ulicifolia	-	-	1		-	-
571675	16	ALUM MTN	BULST 2SU2	1	1	2951	Fabaceae (Faboideae)	Podolobium	ilicifolium			Podolobium ilicifolium	-	-	1		-	-
571676	5	ALUM MTN	BULST 2SU2	1	1	3771	Fabaceae (Mimosoideae)	Acacia	falcata			Acacia falcata	-	-	4		-	-
571677	8	ALUM MTN	BULST 2SU2	1	1	3965	Myrsinaceae	Myrsine	variabilis			Myrsine variabilis	-	-	3		-	-
571678	3	ALUM MTN	BULST 2SU2	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571679	1	ALUM MTN	BULST 2SU2	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	1		-	-
571680	2	ALUM MTN	BULST 2SU2	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	1		-	-
571681	7	ALUM MTN	BULST 2SU2	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-	2		-	-
571682	11	ALUM MTN	BULST 2SU2	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	2		-	-
571683	19	ALUM MTN	BULST 2SU2	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	1		-	-
571684	15	ALUM MTN	BULST 2SU2	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	1		-	-
571685	12	ALUM MTN	BULST 2SU2	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	2		-	-
571686	18	ALUM MTN	BULST 2SU2	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	1		-	-
571687	6	ALUM MTN	BULST 2SU2	1	1	7709	Lomandraceae	Lomandra	confertifolia	70ubs.	Pallida	Lomandra confertifolia subsp. pallida	-	-	4		-	-
571688	10	ALUM MTN	BULST 2SU2	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 70ubs70drical var. major	-	-	1		-	-

571689	17	ALUM MTN	BULST 2US1	1	1	1010	Acanthaceae	Pseuderanthemum	variabile			Pseuderanthemum variabile	-	-		2		-	-
571690	19	ALUM MTN	BULST 2US1	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-		2		-	-
571691	4	ALUM MTN	BULST 2US1	1	1	2012	Casuarinaceae	Allocasuarina	littoralis			Allocasuarina littoralis	-	-		3		-	-
571692	29	ALUM MTN	BULST 2US1	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-		1		-	-
571693	35	ALUM MTN	BULST 2US1	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	71ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-		2		-	-
571694	13	ALUM MTN	BULST 2US1	1	1	2548	Dilleniaceae	Hibbertia	scandens			Hibbertia scandens	-	-		2		-	-
571695	27	ALUM MTN	BULST 2US1	1	1	2695	Euphorbiaceae	Breynia	oblongifolia			Breynia oblongifolia	-	-		1		-	-
571696	11	ALUM MTN	BULST 2US1	1	1	2834	Fabaceae (Faboideae)	Desmodium	brachypodum			Desmodium brachypodum	-	-		3		-	-
571697	39	ALUM MTN	BULST 2US1	1	1	2860	Fabaceae (Faboideae)	Glycine	clandestina			Glycine clandestina	-	-		1		-	-
571698	25	ALUM MTN	BULST 2US1	1	1	2873	Fabaceae (Faboideae)	Hardenbergia	violacea			Hardenbergia violacea	-	-		1		-	-
571699	6	ALUM MTN	BULST 2US1	1	1	2951	Fabaceae (Faboideae)	Podolobium	ilicifolium			Podolobium ilicifolium	-	-		2		-	-
571700	37	ALUM MTN	BULST 2US1	1	1	3190	Goodeniaceae	Goodenia	heterophylla			Goodenia heterophylla	-	-		1		-	-
571701	38	ALUM MTN	BULST 2US1	1	1	3777	Fabaceae (Mimosoideae)	Acacia	floribunda			Acacia floribunda	-	-		2		-	-
571702	22	ALUM MTN	BULST 2US1	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-		1		-	-
571703	2	ALUM MTN	BULST 2US1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-		2		-	-
571704	1	ALUM MTN	BULST 2US1	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-		3		-	-
571705	3	ALUM MTN	BULST 2US1	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-		2		-	-
571706	28	ALUM MTN	BULST 2US1	1	1	4321	Oleaceae	Notelaea	ovata			Notelaea ovata	-	-		1		-	-
571707	12	ALUM MTN	BULST 2US1	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-		2		-	-

571708	33	ALUM MTN	BULST 2US1	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	1		-	-
571709	36	ALUM MTN	BULST 2US1	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2		-	-
571710	18	ALUM MTN	BULST 2US1	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	2		-	-
571711	24	ALUM MTN	BULST 2US1	1	1	5642	Rosaceae	Rubus	parvifolius			Rubus parvifolius	-	-	2		-	-
571712	14	ALUM MTN	BULST 2US1	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	2		-	-
571713	10	ALUM MTN	BULST 2US1	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	2		-	-
571714	8	ALUM MTN	BULST 2US1	1	1	6022	Smilacaceae	Smilax	glyciphylla			Smilax glyciphylla	-	-	2		-	-
571715	32	ALUM MTN	BULST 2US1	1	1	6248	Verbenaceae	Lantana	camara			Lantana camara	-	-	1		-	-
571716	34	ALUM MTN	BULST 2US1	1	1	6270	Violaceae	Viola	betonicifolia			Viola betonicifolia	-	-	1		-	-
571717	5	ALUM MTN	BULST 2US1	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	2		-	-
571718	26	ALUM MTN	BULST 2US1	1	1	6402	Cyperaceae	Lepidosperma	laterale			Lepidosperma laterale	-	-	1		-	-
571719	9	ALUM MTN	BULST 2US1	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571720	20	ALUM MTN	BULST 2US1	1	1	6446	Dioscoreaceae	Dioscorea	transversa			Dioscorea transversa	-	-	1		-	-
571721	31	ALUM MTN	BULST 2US1	1	1	6700	Phormiaceae	Dianella	caerulea	var.	caerulea	Dianella caerulea var. caerulea	-	-	1		-	-
571722	30	ALUM MTN	BULST 2US1	1	1	7709	Lomandraceae	Lomandra	confertifolia	72ubs.	Pallida	Lomandra confertifolia subsp. pallida	-	-	2		-	-
571723	7	ALUM MTN	BULST 2US1	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	7		-	-
571724	16	ALUM MTN	BULST 2US1	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 72ubs72drical var. major	-	-	1		-	-
571725	19	ALUM MTN	BULST 2US2	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	1		-	-
571726	5	ALUM MTN	BULST 2US2	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571727	7	ALUM MTN	BULST 2US2	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	3		-	-
571728	20	ALUM MTN	BULST 2US2	1	1	2548	Dilleniaceae	Hibbertia	scandens			Hibbertia scandens	-	-	1		-	-
571729	28	ALUM MTN	BULST 2US2	1	1	2860	Fabaceae (Faboidea	Glycine	clandestina			Glycine clandestina	-	-	1		-	-

							e)											
571730	11	ALUM MTN	BULST 2US2	1	1	2873	Fabaceae (Faboidea e)	Hardenbergia	violacea			Hardenbergia violacea	-	-	2	-	-	
571731	14	ALUM MTN	BULST 2US2	1	1	2898	Fabaceae (Faboidea e)	Kennedia	rubicunda			Kennedia rubicunda	-	-	3	-	-	
571732	16	ALUM MTN	BULST 2US2	1	1	2951	Fabaceae (Faboidea e)	Podolobium	ilicifolium			Podolobium ilicifolium	-	-	1	-	-	
571733	23	ALUM MTN	BULST 2US2	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	1	-	-	
571734	2	ALUM MTN	BULST 2US2	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	2	-	-	
571735	1	ALUM MTN	BULST 2US2	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	3	-	-	
571736	4	ALUM MTN	BULST 2US2	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	1	-	-	
571737	3	ALUM MTN	BULST 2US2	1	1	4162	Myrtaceae	Eucalyptus	propinqua			Eucalyptus propinqua	-	-	1	-	-	
571738	18	ALUM MTN	BULST 2US2	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1	-	-	
571739	15	ALUM MTN	BULST 2US2	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2	-	-	
571740	27	ALUM MTN	BULST 2US2	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	1	-	-	
571741	13	ALUM MTN	BULST 2US2	1	1	5642	Rosaceae	Rubus	parvifolius			Rubus parvifolius	-	-	3	-	-	
571742	26	ALUM MTN	BULST 2US2	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	2	-	-	
571743	9	ALUM MTN	BULST 2US2	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	2	-	-	
571744	24	ALUM MTN	BULST 2US2	1	1	6248	Verbenaceae	Lantana	camara			Lantana camara	-	-	1	-	-	
571745	22	ALUM MTN	BULST 2US2	1	1	6281	Vitaceae	Cayratia	clematidea			Cayratia clematidea	-	-	1	-	-	
571746	10	ALUM MTN	BULST 2US2	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1	-	-	
571747	17	ALUM MTN	BULST 2US2	1	1	7433	Asteraceae	Vernonia	cinerea			Vernonia cinerea	-	-	1	-	-	
571748	25	ALUM MTN	BULST 2US2	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-	1	-	-	
571749	6	ALUM MTN	BULST 2US2	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	7	-	-	
571750	8	ALUM MTN	BULST 2US2	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 73ubs73drical	-	-	2	-	-	

												var. major						
571751	12	ALUM MTN	BULST 2US2	1	1	8788	Asteraceae	Hypochaeris	radicata			Hypochaeris radicata	-	-	1	-	-	
571752	29	ALUM MTN	BULST 2US2	1	1	ACAC	Fabaceae (Mimosoideae)	Acacia	spp.			Acacia spp.	-	-	1	-	-	
571753	21	ALUM MTN	BULST 2US2	1	1	DESM	Fabaceae (Faboideae)	Desmodium	spp.			Desmodium spp.	-	-	1	-	-	
571754	9	ALUM MTN	BULST 2US3	1	1	1244	Asclepiadaceae	Tylophora	paniculata			Tylophora paniculata	-	-	2	-	-	
571755	3	ALUM MTN	BULST 2US3	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2	-	-	
571756	10	ALUM MTN	BULST 2US3	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	3	-	-	
571757	13	ALUM MTN	BULST 2US3	1	1	2548	Dilleniaceae	Hibbertia	scandens			Hibbertia scandens	-	-	1	-	-	
571758	27	ALUM MTN	BULST 2US3	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	3	-	-	
571759	16	ALUM MTN	BULST 2US3	1	1	2873	Fabaceae (Faboideae)	Hardenbergia	violacea			Hardenbergia violacea	-	-	2	-	-	
571760	15	ALUM MTN	BULST 2US3	1	1	2898	Fabaceae (Faboideae)	Kennedia	rubicunda			Kennedia rubicunda	-	-	2	-	-	
571761	20	ALUM MTN	BULST 2US3	1	1	3301	Iridaceae	Patersonia	glabrata			Patersonia glabrata	-	-	1	-	-	
571762	23	ALUM MTN	BULST 2US3	1	1	3683	Meliaceae	Synoum	glandulosum	74ubs.	Glandulosum	Synoum glandulosum subsp. glandulosum	-	-	1	-	-	
571763	17	ALUM MTN	BULST 2US3	1	1	3777	Fabaceae (Mimosoideae)	Acacia	floribunda			Acacia floribunda	-	-	1	-	-	
571764	21	ALUM MTN	BULST 2US3	1	1	3965	Myrsinaceae	Myrsine	variabilis			Myrsine variabilis	-	-	1	-	-	
571765	2	ALUM MTN	BULST 2US3	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1	-	-	
571766	1	ALUM MTN	BULST 2US3	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	1	-	-	
571767	24	ALUM MTN	BULST 2US3	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	1	-	-	
571768	26	ALUM MTN	BULST 2US3	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	1	-	-	

571769	19	ALUM MTN	BULST 2US3	1	1	5638	Rosaceae	Rubus	molluccanus	var.	trilobus	Rubus molluccanus var. trilobus	-	-	1		-	-
571770	11	ALUM MTN	BULST 2US3	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	2		-	-
571771	14	ALUM MTN	BULST 2US3	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	2		-	-
571772	22	ALUM MTN	BULST 2US3	1	1	6022	Smilacaceae	Smilax	glyciphylla			Smilax glyciphylla	-	-	1		-	-
571773	12	ALUM MTN	BULST 2US3	1	1	6281	Vitaceae	Cayratia	clematidea			Cayratia clematidea	-	-	1		-	-
571774	6	ALUM MTN	BULST 2US3	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	2		-	-
571775	18	ALUM MTN	BULST 2US3	1	1	6700	Phormiaceae	Dianella	caerulea	var.	caerulea	Dianella caerulea var. caerulea	-	-	1		-	-
571776	7	ALUM MTN	BULST 2US3	1	1	8052	Blechnaceae	Blechnum	cartilagineum			Blechnum cartilagineum	-	-	2		-	-
571777	5	ALUM MTN	BULST 2US3	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	7		-	-
571778	8	ALUM MTN	BULST 2US3	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 75ubs75drical var. major	-	-	2		-	-
571779	4	ALUM MTN	BULST 2US3	1	1	8843	Xanthorrhoeaceae	Xanthorrhoea	malacophylla			Xanthorrhoea malacophylla	-	-	2		-	-
571780	25	ALUM MTN	BULST 2US3	1	1	SENE	Asteraceae	Senecio	spp.			Senecio spp.	-	-	1		-	-
571781	23	ALUM MTN	BULST 2US4	1	1	1126	Apiaceae	Hydrocotyle	geraniifolia			Hydrocotyle geraniifolia	-	-	2		-	-
571782	28	ALUM MTN	BULST 2US4	1	1	1157	Apiaceae	Trachymene	procumbens			Trachymene procumbens	-	-	1		-	-
571783	29	ALUM MTN	BULST 2US4	1	1	1227	Asclepiadaceae	Gomphocarpus	fruticosus			Gomphocarpus fruticosus	-	-	1		-	-
571784	17	ALUM MTN	BULST 2US4	1	1	1255	Asteraceae	Ageratina	adenophora			Ageratina adenophora	-	-	3		-	-
571785	30	ALUM MTN	BULST 2US4	1	1	1925	Lobeliaceae	Pratia	purpurascens			Pratia purpurascens	-	-	1		-	-
571786	3	ALUM MTN	BULST 2US4	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	3		-	-
571787	19	ALUM MTN	BULST 2US4	1	1	2209	Commelinaceae	Commelina	cyanea			Commelina cyanea	-	-	1		-	-
571788	9	ALUM MTN	BULST 2US4	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	3		-	-
571789	31	ALUM MTN	BULST 2US4	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	3		-	-

571790	11	ALUM MTN	BULST 2US4	1	1	2873	Fabaceae (Faboideae)	Hardenbergia	violacea			Hardenbergia violacea	-	-	1	-	-
571791	21	ALUM MTN	BULST 2US4	1	1	3397	Lamiaceae	Plectranthus	parviflorus			Plectranthus parviflorus	-	-	2	-	-
571792	24	ALUM MTN	BULST 2US4	1	1	3540	Phormiaceae	Dianella	caerulea			Dianella caerulea	-	-	1	-	-
571793	2	ALUM MTN	BULST 2US4	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	3	-	-
571794	1	ALUM MTN	BULST 2US4	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	2	-	-
571795	12	ALUM MTN	BULST 2US4	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	1	-	-
571796	20	ALUM MTN	BULST 2US4	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-	2	-	-
571797	26	ALUM MTN	BULST 2US4	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	1	-	-
571798	22	ALUM MTN	BULST 2US4	1	1	5638	Rosaceae	Rubus	molluccanus	var.	trilobus	Rubus molluccanus var. trilobus	-	-	1	-	-
571799	13	ALUM MTN	BULST 2US4	1	1	5642	Rosaceae	Rubus	parvifolius			Rubus parvifolius	-	-	2	-	-
571800	7	ALUM MTN	BULST 2US4	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	3	-	-
571801	15	ALUM MTN	BULST 2US4	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	2	-	-
571802	16	ALUM MTN	BULST 2US4	1	1	6058	Solanaceae	Physalis	peruviana			Physalis peruviana	-	-	1	-	-
571803	10	ALUM MTN	BULST 2US4	1	1	6248	Verbenaceae	Lantana	camara			Lantana camara	-	-	2	-	-
571804	25	ALUM MTN	BULST 2US4	1	1	6281	Vitaceae	Cayratia	clematidea			Cayratia clematidea	-	-	1	-	-
571805	5	ALUM MTN	BULST 2US4	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	4	-	-
571806	18	ALUM MTN	BULST 2US4	1	1	6446	Dioscoreaceae	Dioscorea	transversa			Dioscorea transversa	-	-	1	-	-
571807	27	ALUM MTN	BULST 2US4	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-	1	-	-
571808	8	ALUM MTN	BULST 2US4	1	1	8064	Blechnaceae	Doodia	aspera			Doodia aspera	-	-	3	-	-
571809	6	ALUM MTN	BULST 2US4	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	5	-	-
571810	14	ALUM MTN	BULST 2US4	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 76ubs76drical var. major	-	-	2	-	-

571811	4	ALUM MTN	BULST 2US4	1	1	8843	Xanthorrhoeaceae	Xanthorrhoea	malacophylla			Xanthorrhoea malacophylla	-	-	2		-	-
571812	8	ALUM MTN	BULST 2US5	1	1	1010	Acanthaceae	Pseuderanthemum	variabile			Pseuderanthemum variabile	-	-	2		-	-
571813	24	ALUM MTN	BULST 2US5	1	1	1244	Asclepiadaceae	Tylophora	paniculata			Tylophora paniculata	-	-	2		-	-
571814	21	ALUM MTN	BULST 2US5	1	1	1667	Asteraceae	Senecio	linearifolius			Senecio linearifolius	-	-	1		-	-
571815	4	ALUM MTN	BULST 2US5	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571816	19	ALUM MTN	BULST 2US5	1	1	2206	Commelinaceae	Aneilema	acuminatum			Aneilema acuminatum	-	-	2		-	-
571817	15	ALUM MTN	BULST 2US5	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	2		-	-
571818	29	ALUM MTN	BULST 2US5	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	1		-	-
571819	13	ALUM MTN	BULST 2US5	1	1	2898	Fabaceae (Faboideae)	Kennedia	rubicunda			Kennedia rubicunda	-	-	1		-	-
571820	25	ALUM MTN	BULST 2US5	1	1	3393	Lamiaceae	Plectranthus	argentatus			Plectranthus argentatus	-	-	2		-	-
571821	2	ALUM MTN	BULST 2US5	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	1		-	-
571822	3	ALUM MTN	BULST 2US5	1	1	4155	Myrtaceae	Eucalyptus	pilularis			Eucalyptus pilularis	-	-	1		-	-
571823	1	ALUM MTN	BULST 2US5	1	1	4177	Myrtaceae	Eucalyptus	saligna			Eucalyptus saligna	-	-	1		-	-
571824	6	ALUM MTN	BULST 2US5	1	1	4642	Passifloraceae	Passiflora	cinnabarina			Passiflora cinnabarina	-	-	2		-	-
571825	26	ALUM MTN	BULST 2US5	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-	2		-	-
571826	18	ALUM MTN	BULST 2US5	1	1	5638	Rosaceae	Rubus	molluccanus	var.	trilobus	Rubus molluccanus var. trilobus	-	-	1		-	-
571827	7	ALUM MTN	BULST 2US5	1	1	5642	Rosaceae	Rubus	parvifolius			Rubus parvifolius	-	-	3		-	-
571828	17	ALUM MTN	BULST 2US5	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	2		-	-
571829	11	ALUM MTN	BULST 2US5	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	2		-	-
571830	20	ALUM MTN	BULST 2US5	1	1	6248	Verbenaceae	Lantana	camara			Lantana camara	-	-	1		-	-
571831	16	ALUM MTN	BULST 2US5	1	1	6281	Vitaceae	Cayratia	clematidea			Cayratia clematidea	-	-	2		-	-
571832	10	ALUM MTN	BULST 2US5	1	1	6285	Vitaceae	Cissus	opaca			Cissus opaca	-	-	2		-	-

571833	14	ALUM MTN	BULST 2US5	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	1		-	-
571834	22	ALUM MTN	BULST 2US5	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571835	9	ALUM MTN	BULST 2US5	1	1	6446	Dioscoreaceae	Dioscorea	transversa			Dioscorea transversa	-	-	3		-	-
571836	23	ALUM MTN	BULST 2US5	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-	1		-	-
571837	27	ALUM MTN	BULST 2US5	1	1	8052	Blechnaceae	Blechnum	cartilagineum			Blechnum cartilagineum	-	-	1		-	-
571838	5	ALUM MTN	BULST 2US5	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-	7		-	-
571839	28	ALUM MTN	BULST 2US5	1	1	8428	Menispermaceae	Stephania	japonica	var.	discolor	Stephania japonica var. discolor	-	-	1		-	-
571840	12	ALUM MTN	BULST 2US5	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 78ubs78drical var. major	-	-	2		-	-
571841	13	ALUM MTN	BULST 2US6	1	1	1010	Acanthaceae	Pseuderanthemum	variabile			Pseuderanthemum variabile	-	-	2		-	-
571842	14	ALUM MTN	BULST 2US6	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-	2		-	-
571843	30	ALUM MTN	BULST 2US6	1	1	1925	Lobeliaceae	Pratia	purpurascens			Pratia purpurascens	-	-	1		-	-
571844	4	ALUM MTN	BULST 2US6	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	2		-	-
571845	26	ALUM MTN	BULST 2US6	1	1	2532	Dilleniaceae	Hibbertia	dentata			Hibbertia dentata	-	-	1		-	-
571846	18	ALUM MTN	BULST 2US6	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	78ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	2		-	-
571847	15	ALUM MTN	BULST 2US6	1	1	2548	Dilleniaceae	Hibbertia	scandens			Hibbertia scandens	-	-	3		-	-
571848	29	ALUM MTN	BULST 2US6	1	1	2695	Euphorbiaceae	Breynia	oblongifolia			Breynia oblongifolia	-	-	1		-	-
571849	32	ALUM MTN	BULST 2US6	1	1	2840	Fabaceae (Faboideae)	Desmodium	varians			Desmodium varians	-	-	2		-	-
571850	9	ALUM MTN	BULST 2US6	1	1	2898	Fabaceae (Faboideae)	Kennedia	rubicunda			Kennedia rubicunda	-	-	2		-	-
571851	7	ALUM MTN	BULST 2US6	1	1	3777	Fabaceae (Mimosoideae)	Acacia	floribunda			Acacia floribunda	-	-	3		-	-
571852	1	ALUM MTN	BULST 2US6	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	1		-	-

571853	2	ALUM MTN	BULST 2US6	1	1	4162	Myrtaceae	Eucalyptus	propinqua			Eucalyptus propinqua	-	-		2		-	-
571854	20	ALUM MTN	BULST 2US6	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-		1		-	-
571855	8	ALUM MTN	BULST 2US6	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-		3		-	-
571856	19	ALUM MTN	BULST 2US6	1	1	5044	Poaceae	Oplismenus	aemulus			Oplismenus aemulus	-	-		2		-	-
571857	17	ALUM MTN	BULST 2US6	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-		2		-	-
571858	10	ALUM MTN	BULST 2US6	1	1	5642	Rosaceae	Rubus	parvifolius			Rubus parvifolius	-	-		2		-	-
571859	5	ALUM MTN	BULST 2US6	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-		6		-	-
571860	11	ALUM MTN	BULST 2US6	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-		1		-	-
571861	25	ALUM MTN	BULST 2US6	1	1	6022	Smilacaceae	Smilax	glyciphylla			Smilax glyciphylla	-	-		1		-	-
571862	23	ALUM MTN	BULST 2US6	1	1	6248	Verbenaceae	Lantana	camara			Lantana camara	-	-		2		-	-
571863	16	ALUM MTN	BULST 2US6	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-		2		-	-
571864	6	ALUM MTN	BULST 2US6	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-		3		-	-
571865	31	ALUM MTN	BULST 2US6	1	1	6816	Ulmaceae	Trema	tomentosa	var.	viridis	Trema 79ubs79dric var. viridis	-	-		1		-	-
571866	28	ALUM MTN	BULST 2US6	1	1	7337	Phormiaceae	Dianella	caerulea	var.	producta	Dianella caerulea var. producta	-	-		2		-	-
571867	22	ALUM MTN	BULST 2US6	1	1	7686	Rhamnaceae	Alphitonia	excelsa			Alphitonia excelsa	-	-		2		-	-
571868	24	ALUM MTN	BULST 2US6	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-		1		-	-
571869	21	ALUM MTN	BULST 2US6	1	1	8341	Dicksoniaceae	Calochlaena	dubia			Calochlaena dubia	-	-		3		-	-
571870	3	ALUM MTN	BULST 2US6	1	1	8355	Myrtaceae	Eucalyptus	fergusonii	79ubs.	Fergusonii	Eucalyptus fergusonii subsp. fergusonii	-	-		1		-	-
571871	27	ALUM MTN	BULST 2US6	1	1	8428	Menispermaceae	Stephania	japonica	var.	discolor	Stephania japonica var. discolor	-	-		1		-	-
571872	12	ALUM MTN	BULST 2US6	1	1	8511	Poaceae	Imperata	cylindrica	var.	major	Imperata 79ubs79drical var. major	-	-		2		-	-

571873	11	ALUM MTN	FRYSC K1	1	1	1185	Apocynaceae	Parsonsia	straminea			Parsonsia straminea	-	-	1		-	-
571874	28	ALUM MTN	FRYSC K1	1	1	1195	Araceae	Gymnostachys	anceps			Gymnostachys anceps	-	-	1		-	-
571875	15	ALUM MTN	FRYSC K1	1	1	1925	Lobeliaceae	Pratia	purpurascens			Pratia purpurascens	-	-	1		-	-
571876	9	ALUM MTN	FRYSC K1	1	1	2270	Cunoniaceae	Callicoma	serratifolia			Callicoma serratifolia	-	-	2		-	-
571877	8	ALUM MTN	FRYSC K1	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-	6		-	-
571878	24	ALUM MTN	FRYSC K1	1	1	3642	Malvaceae	Hibiscus	heterophyllus	80ubs.	Heterophyllus	Hibiscus heterophyllus subsp. heterophyllus	-	-	1		-	-
571879	5	ALUM MTN	FRYSC K1	1	1	3968	Myrtaceae	Acmena	smithii			Acmena smithii	-	-	3		-	-
571880	1	ALUM MTN	FRYSC K1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571881	6	ALUM MTN	FRYSC K1	1	1	4015	Myrtaceae	Callistemon	salignus			Callistemon salignus	-	-	3		-	-
571882	3	ALUM MTN	FRYSC K1	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-	2		-	-
571883	4	ALUM MTN	FRYSC K1	1	1	4257	Myrtaceae	Melaleuca	linariifolia			Melaleuca linariifolia	-	-	1		-	-
571884	23	ALUM MTN	FRYSC K1	1	1	4318	Oleaceae	Notelaea	longifolia			Notelaea longifolia	-	-	1		-	-
571885	17	ALUM MTN	FRYSC K1	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1		-	-
571886	18	ALUM MTN	FRYSC K1	1	1	4673	Pittosporaceae	Bursaria	longisepala			Bursaria longisepala	-	-	1		-	-
571887	21	ALUM MTN	FRYSC K1	1	1	4683	Pittosporaceae	Pittosporum	revolutum			Pittosporum revolutum	-	-	2		-	-
571888	22	ALUM MTN	FRYSC K1	1	1	4685	Pittosporaceae	Pittosporum	undulatum			Pittosporum undulatum	-	-	1		-	-
571889	14	ALUM MTN	FRYSC K1	1	1	4946	Poaceae	Entolasia	marginata			Entolasia marginata	-	-	2		-	-
571890	13	ALUM MTN	FRYSC K1	1	1	5911	Sapindaceae	Dodonaea	triquetra			Dodonaea triquetra	-	-	1		-	-
571891	27	ALUM MTN	FRYSC K1	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	1		-	-
571892	7	ALUM MTN	FRYSC K1	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	5		-	-
571893	19	ALUM MTN	FRYSC K1	1	1	6403	Dennstaedtiaceae	Pteridium	esculentum			Pteridium esculentum	-	-	1		-	-
571894	26	ALUM MTN	FRYSC K1	1	1	6446	Dioscoreaceae	Dioscorea	transversa			Dioscorea transversa	-	-	1		-	-

571895	2	ALUM MTN	FRYSC K1	1	1	6688	Myrtaceae	Syncarpia	glomulifera			Syncarpia glomulifera	-	-		2		-	-
571896	20	ALUM MTN	FRYSC K1	1	1	6860	Rubiaceae	Morinda	jasminoides			Morinda jasminoides	-	-		2		-	-
571897	25	ALUM MTN	FRYSC K1	1	1	7592	Smilacaceae	Smilax	australis			Smilax australis	-	-		1		-	-
571898	12	ALUM MTN	FRYSC K1	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-		1		-	-
571899	16	ALUM MTN	FRYSC K1	1	1	7997	Adiantaceae	Adiantum	aethiopicum			Adiantum aethiopicum	-	-		2		-	-
571900	10	ALUM MTN	FRYSC K1	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	81ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-		3		-	-
571901	28	ALUM MTN	FRYSC K2	1	1	1195	Araceae	Gymnostachys	anceps			Gymnostachys anceps	-	-		2		-	-
571902	22	ALUM MTN	FRYSC K2	1	1	1211	Araliaceae	Polyscias	sambucifolia			Polyscias sambucifolia	-	-		1		-	-
571903	33	ALUM MTN	FRYSC K2	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-		1		-	-
571904	29	ALUM MTN	FRYSC K2	1	1	2035	Celastraceae	Maytenus	silvestris			Maytenus silvestris	-	-		2		-	-
571905	7	ALUM MTN	FRYSC K2	1	1	2270	Cunoniaceae	Callicoma	serratifolia			Callicoma serratifolia	-	-		3		-	-
571906	11	ALUM MTN	FRYSC K2	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-		5		-	-
571907	12	ALUM MTN	FRYSC K2	1	1	2470	Cyperaceae	Lepidosperma	longitudinale			Lepidosperma longitudinale	-	-		3		-	-
571908	37	ALUM MTN	FRYSC K2	1	1	2695	Euphorbiaceae	Breynia	oblongifolia			Breynia oblongifolia	-	-		1		-	-
571909	18	ALUM MTN	FRYSC K2	1	1	3300	Iridaceae	Patersonia	fragilis			Patersonia fragilis	-	-		1		-	-
571910	24	ALUM MTN	FRYSC K2	1	1	3642	Malvaceae	Hibiscus	heterophyllus	81ubs.	Heterophyllus	Hibiscus heterophyllus subsp. heterophyllus	-	-		2		-	-
571911	6	ALUM MTN	FRYSC K2	1	1	3968	Myrtaceae	Acmena	smithii			Acmena smithii	-	-		5		-	-
571912	4	ALUM MTN	FRYSC K2	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-		2		-	-
571913	9	ALUM MTN	FRYSC K2	1	1	4015	Myrtaceae	Callistemon	salignus			Callistemon salignus	-	-		2		-	-
571914	5	ALUM MTN	FRYSC K2	1	1	4128	Myrtaceae	Eucalyptus	microcorys			Eucalyptus microcorys	-	-		1		-	-
571915	8	ALUM MTN	FRYSC K2	1	1	4257	Myrtaceae	Melaleuca	linariifolia			Melaleuca linariifolia	-	-		2		-	-

571916	25	ALUM MTN	FRYSC K2	1	1	4318	Oleaceae	Notelaea	longifolia			Notelaea longifolia	-	-	2		-	-
571917	35	ALUM MTN	FRYSC K2	1	1	4673	Pittosporaceae	Bursaria	longisepala			Bursaria longisepala	-	-	1		-	-
571918	36	ALUM MTN	FRYSC K2	1	1	4683	Pittosporaceae	Pittosporum	revolutum			Pittosporum revolutum	-	-	1		-	-
571919	19	ALUM MTN	FRYSC K2	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	3		-	-
571920	26	ALUM MTN	FRYSC K2	1	1	6015	Luzuriagaceae	Eustrephus	latifolius			Eustrephus latifolius	-	-	1		-	-
571921	21	ALUM MTN	FRYSC K2	1	1	6016	Luzuriagaceae	Geitonoplesium	cymosum			Geitonoplesium cymosum	-	-	1		-	-
571922	17	ALUM MTN	FRYSC K2	1	1	6022	Smilacaceae	Smilax	glyciphylla			Smilax glyciphylla	-	-	2		-	-
571923	10	ALUM MTN	FRYSC K2	1	1	6308	Lomandraceae	Lomandra	longifolia			Lomandra longifolia	-	-	6		-	-
571924	20	ALUM MTN	FRYSC K2	1	1	6401	Lindsaeaceae	Lindsaea	microphylla			Lindsaea microphylla	-	-	1		-	-
571925	27	ALUM MTN	FRYSC K2	1	1	6446	Dioscoreaceae	Dioscorea	transversa			Dioscorea transversa	-	-	2		-	-
571926	38	ALUM MTN	FRYSC K2	1	1	6472	Fabaceae (Mimosoideae)	Acacia	irrorata	82ubs.	Irrorata	Acacia irrorata subsp. irrorata	-	-	1		-	-
571927	2	ALUM MTN	FRYSC K2	1	1	6688	Myrtaceae	Syncarpia	glomulifera			Syncarpia glomulifera	-	-	2		-	-
571928	16	ALUM MTN	FRYSC K2	1	1	6860	Rubiaceae	Morinda	jasminoides			Morinda jasminoides	-	-	3		-	-
571929	30	ALUM MTN	FRYSC K2	1	1	7201	Myrtaceae	Syzygium	oleosum			Syzygium oleosum	-	-	1		-	-
571930	23	ALUM MTN	FRYSC K2	1	1	7479	Moraceae	Ficus	coronata			Ficus coronata	-	-	2		-	-
571931	32	ALUM MTN	FRYSC K2	1	1	7592	Smilacaceae	Smilax	australis			Smilax australis	-	-	2		-	-
571932	1	ALUM MTN	FRYSC K2	1	1	7635	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571933	14	ALUM MTN	FRYSC K2	1	1	7866	Euphorbiaceae	Glochidion	ferdinandi			Glochidion ferdinandi	-	-	1		-	-
571934	13	ALUM MTN	FRYSC K2	1	1	7997	Adiantaceae	Adiantum	aethiopicum			Adiantum aethiopicum	-	-	2		-	-
571935	15	ALUM MTN	FRYSC K2	1	1	8052	Blechnaceae	Blechnum	cartilagineum			Blechnum cartilagineum	-	-	1		-	-
571936	34	ALUM MTN	FRYSC K2	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	82ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	1		-	-

571937	3	ALUM MTN	FRYSC K2	1	1	8694	Myrtaceae	Eucalyptus	resinifera	83ubs.	Hemilampra	Eucalyptus resinifera subsp. hemilampra	-	-	2		-	-
571938	39	ALUM MTN	FRYSC K2	1	1	9008	Sterculiaceae	Lasiopetalum	ferrugineum	var.	ferrugineum	Lasiopetalum ferrugineum var. ferrugineum	-	-	1		-	-
571939	31	ALUM MTN	FRYSC K2	1	1	CARE	Cyperaceae	Carex	spp.			Carex spp.	-	-	1		-	-
571940	11	ALUM MTN	RPBUL SL1	1	1	1162	Apiaceae	Xanthosia	pilosa			Xanthosia pilosa	-	-	2		-	-
571941	23	ALUM MTN	RPBUL SL1	1	1	11904	Fabaceae (Faboideae)	Dillwynia	retorta species complex			Dillwynia retorta species complex	-	-	1		-	-
571942	6	ALUM MTN	RPBUL SL1	1	1	2017	Casuarinaceae	Allocasuarina	torulosa			Allocasuarina torulosa	-	-	1		-	-
571943	25	ALUM MTN	RPBUL SL1	1	1	2432	Cyperaceae	Gahnia	clarkei			Gahnia clarkei	-	-	1		-	-
571944	24	ALUM MTN	RPBUL SL1	1	1	2535	Dilleniaceae	Hibbertia	empetrifolia	83ubs.	Empetrifolia	Hibbertia empetrifolia subsp. empetrifolia	-	-	2		-	-
571945	31	ALUM MTN	RPBUL SL1	1	1	2605	Epacridaceae	Epacris	pulchella			Epacris pulchella	-	-	1		-	-
571946	10	ALUM MTN	RPBUL SL1	1	1	3004	Fabaceae (Faboideae)	Pultenaea	myrtoides			Pultenaea myrtoides	-	-	3		-	-
571947	32	ALUM MTN	RPBUL SL1	1	1	3014	Fabaceae (Faboideae)	Pultenaea	retusa			Pultenaea retusa	-	-	2		-	-
571948	16	ALUM MTN	RPBUL SL1	1	1	3172	Goodeniaceae	Dampiera	purpurea			Dampiera purpurea	-	-	1		-	-
571949	26	ALUM MTN	RPBUL SL1	1	1	3188	Goodeniaceae	Goodenia	hederacea			Goodenia hederacea	-	-	1		-	-
571950	15	ALUM MTN	RPBUL SL1	1	1	3816	Fabaceae (Mimosoideae)	Acacia	longifolia			Acacia longifolia	-	-	2		-	-
571951	1	ALUM MTN	RPBUL SL1	1	1	3970	Myrtaceae	Angophora	costata			Angophora costata	-	-	1		-	-
571952	2	ALUM MTN	RPBUL SL1	1	1	4156	Myrtaceae	Eucalyptus	piperita			Eucalyptus piperita	-	-	2		-	-
571953	27	ALUM MTN	RPBUL SL1	1	1	4171	Myrtaceae	Eucalyptus	robusta			Eucalyptus robusta	-	-	1		-	-
571954	28	ALUM MTN	RPBUL SL1	1	1	4671	Pittosporaceae	Billardiera	scandens			Billardiera scandens	-	-	1		-	-

571955	12	ALUM MTN	RPBUL SL1	1	1	4947	Poaceae	Entolasia	stricta			Entolasia stricta	-	-	2		-	-
571956	19	ALUM MTN	RPBUL SL1	1	1	5219	Poaceae	Themeda	australis			Themeda australis	-	-	2		-	-
571957	29	ALUM MTN	RPBUL SL1	1	1	5345	Proteaceae	Banksia	oblongifolia			Banksia oblongifolia	-	-	1		-	-
571958	7	ALUM MTN	RPBUL SL1	1	1	5349	Proteaceae	Banksia	spinulosa			Banksia spinulosa	-	-	3		-	-
571959	4	ALUM MTN	RPBUL SL1	1	1	5462	Proteaceae	Persoonia	levis			Persoonia levis	-	-	2		-	-
571960	5	ALUM MTN	RPBUL SL1	1	1	5463	Proteaceae	Persoonia	linearis			Persoonia linearis	-	-	1		-	-
571961	9	ALUM MTN	RPBUL SL1	1	1	5750	Rutaceae	Boronia	pinnata			Boronia pinnata	-	-	3		-	-
571962	20	ALUM MTN	RPBUL SL1	1	1	6312	Lomandraceae	Lomandra	obliqua			Lomandra obliqua	-	-	2		-	-
571963	30	ALUM MTN	RPBUL SL1	1	1	6318	Xanthorrhoeaceae	Xanthorrhoea	macronema			Xanthorrhoea macronema	-	-	1		-	-
571964	14	ALUM MTN	RPBUL SL1	1	1	6406	Lindsaeaceae	Lindsaea	linearis			Lindsaea linearis	-	-	2		-	-
571965	8	ALUM MTN	RPBUL SL1	1	1	8197	Myrtaceae	Leptospermum	polygalifolium	84ubs.	Polygalifolium	Leptospermum polygalifolium subsp. polygalifolium	-	-	5		-	-
571966	18	ALUM MTN	RPBUL SL1	1	1	8216	Euphorbiaceae	Phyllanthus	hirtellus			Phyllanthus hirtellus	-	-	2		-	-
571967	13	ALUM MTN	RPBUL SL1	1	1	8956	Cyperaceae	Ptilothrix	deusta			Ptilothrix deusta	-	-	3		-	-
571968	22	ALUM MTN	RPBUL SL1	1	1	9309	Xanthorrhoeaceae	Xanthorrhoea	latifolia	84ubs.	Latifolia	Xanthorrhoea latifolia subsp. latifolia	-	-	2		-	-
571969	3	ALUM MTN	RPBUL SL1	1	1	9687	Myrtaceae	Corymbia	gummifera			Corymbia gummifera	-	-	1		-	-
571970	17	ALUM MTN	RPBUL SL1	1	1	CASY	Lauraceae	Cassytha	spp.			Cassytha spp.	-	-	1		-	-
571971	21	ALUM MTN	RPBUL SL1	1	1	GOMP	Fabaceae (Faboideae)	Gompholobium	spp.			Gompholobium spp.	-	-	1		-	-

APPENDIX 11 – SUMMARY TABLE OF TARGETED SEARCHES FOR THREATENED PLANT SPECIES

Month/Year	Stage	Species	Habitats targeted using random traverses, targeted niche surveys and quadrat surveys
June 2007	1	Botanical survey quadrats	Coastal plains, tributaries including Frys Creek
		Syzygium paniculatum	Frys Creek
		Angophora inopina	Coastal plain, tributaries including Frys Creek
		Asperula asthenes	Frys Creek, tributaries
		Melaleuca biconvexa	Coastal plain, tributaries including Frys Creek
		Corybas sp.aff. acontiflorus	Coastal plain, tributaries and Frys Creek (not yet listed as a threatened species)
		Callistemon linearifolius	Frys Creek
July 2007	1	*Rhizanthella slateri*	Special trip to Alum Mountain to view location of orchid site.
August 2007	1 & 2	*Cryptostylis hunteriana*	Coastal plain and slopes
		Rhizanthella slateri	Coastal plain and slopes
		Tetratheca juncea	Coastal plain and slopes
		Corybas sp. aff. Acontiflorus	Tall forest gullies and slopes (not yet listed as a threatened species)
		Syzygium paniculatum	Frys Creek
		Melaleuca biconvexa	Frys Creek and coastal plain
		Angophora inopina	Coastal plain and slopes
		Asperula asthenes	Frys Creek
		Callistemon linearifolius	Frys Creek
August 2007 (2nd trip)	1 & 2	*Cryptostylis hunteriana*	Coastal plain and slopes
		Tetratheca juncea	Coastal plain and slopes
		Corybas sp. aff. Acontiflorus	Tall forest gullies and slopes (not yet listed as a threatened species)
		Syzygium paniculatum	Frys Creek
		Melaleuca biconvexa	Frys Creek and coastal plain
		Angophora inopina	Coastal plain and slopes

		Asperula asthenes	Frys Creek
		Callistemon linearifolius	Frys Creek
October 2007	1 & 2	Botanical survey quadrats	Slopes and summit of Alum Mountain
		Syzygium paniculatum	Frys Creek and coastal plain
		Rhizanthella slateri	Coastal plain and slopes
		Tetratheca juncea	Frys Creek and coastal plain
		Melaleuca biconvexa	Frys Creek and Swamp Sclerophyll Forest
		Angophora inopina	Coastal Plain, Swamp Sclerophyll Forest and slopes
		Asperula asthenes	Frys Creek and Swamp Sclerophyll Forest
		Crypostylis hunteriana	Coastal plain, Swamp Sclerophyll Forest and slopes
		Callistemon linearifolius	Frys Creek
		Callistemon acuminatus	Summit of Alum Mountain
		Callistemon comboynensis	Summit of Alum Mountain
VEGETATION ON STAGE 1 WAS CLEARED			
December 2008	2	*Syzygium paniculatum*	Frys Creek and Myall River as far as Warranulla
		Asperula asthenes	Frys Creek
		Cryptostylis hunteriana	Frys Creek and slopes
		Melaleuca biconvexa	Frys Creek
		Angophora inopina	Slopes
		Callistemon linearifolius	Frys Creek
PROJECT STOPPED DUE TO GLOBAL FINANCIAL SITUATION			
December 2009	2	*Syzygium paniculatum*	Frys Creek
		Asperula asthenes	Frys Creek and Swamp Sclerophyll Forest
		Cryptostylis hunteriana	All habitats
		Melaleuca biconvexa	Frys Creek and Swamp Scleropyll Forest
		Angophora inopina	Slopes
		Callistemon linearifolius	Frys Creek
February 2010	1 & 2	GPS vegetation mapping survey	All habitats
		Crypostylis hunteriana	All habitats

		Syzygium paniculatum	Frys Creek
		Melaleuca biconvexa	Frys Creek and Swamp Scerophyll Forest
		Angophora inopina	All habitats
		Asperula asthenes	Frys Creek
		Callistemon linearifolius	Frys Creek
July 2010 (1st trip)	1 & 2	*Corybas dowlingii*	Tall forest gullies and slopes & Frys Creek
		Syzygium paniculatum	Frys Creek
		Melaleuca biconvexa	Frys Creek & Swamp Sclerophyll Forest
		Angophora inopina	All habitats except Alum Mountain
		Asperula asthenes	Frys Creek
		Callistemon linearifolius	Frys Creek
July 2010 (2ND trip)	1 & 2	*Corybas dowlingii*	Northern gullies & slopes
July 28th 2010 (3RD trip)	1 & 2	*Tetratheca juncea*	Coastal Plain
August 9th 2010	1 & 2	*Diuris pedunculata,* *Corybas dowlingii* *Cryptostylis hunteriana* *Tetratheca juncea*	Moist grassy area near yabbie ponds. Northern slopes including upper rocky scree slopes and regenerating areas of coastal plain.
August 12 th & 13 th 2010	1 & 2	*Diuris pedunculata,* *Corybas dowlingii* *Cryptostylis hunteriana* *Tetratheca juncea*	Moist grassy area near yabbie ponds. Northern slopes including cliff faces. Coastal plain and Frys Creek.
October 19 th & 20th 2010	1 & 2	*Diuris pedunculata,* *Cryptostylis hunteriana* *Tetratheca juncea* *Rhizanthella slateri* *Galium australe*	Coastal plain & slopes including northern drainage lines

APPENDIX 12 - SCHEDULE 13 LISTED SPECIES

SPECIES	SCHEDULE 13	RECORDED ON SITE
PART 1		
Adiantum spp.	Group 1, 2	#
Archontophoenix cunninghamiana	Group 1,2	
Baeckea linifolia	Group 1,2	
Baeckea virgata	Group 1,2	
Banksia spinulosa	Group 1,2	
Cassinia aureonitens	Group 1,2	
Caustis spp.	Group 1,2	
Cordyline stricta	Group 1,2	
Crowea exaltata	Group 1,2	
Crowea saligna	Group 1,2	
Davalia pyxidata	Group 1,2	# (summit of Alum Mountain)
Dodonaea lobulata	Group 1,2	
Erisremon spp.	Group 1,2	
Gahnia sieberiana	Group 1,2	
Isopogon spp.	Group 1,2	
Kunzea ambigua	Group 1,2	
Kunzea capitata	Group 1,2	
Leptospermum lanigerum	Group 1,2	
Leptospermum rotundifolium	Group 1,2	
Livistona australis	Group 1,2	
Persoonia spp.	Group 1,2	#
Petrophile spp.	Group 1,2	
Phebalium squamulosum	Group 1,2	
Philotheca spp.	Group 1,2	
Ptilotus obovatus	Group 1,2	
Pycnosorus spp.	Group 1,2	
Restio tetraphyllus	Group 1,2	
Sprengelia incarnata	Group 1,2	
Sticherus flabellatus	Group 1,2	
Swainsonia Formosa	Group 1,2	
Tmesipteris spp.	Group 1,2	
Xanthorrhoea spp.	Group 1,2	#
Xylomelum spp.	Group 1,2	
Zamiaceae	Group 1,2	
Actinotus spp.	Group 3	#
Boronia spp.	Group 3	#
Doryanthes excelsa	Group 3	
Eristemon australiasius	Group 3	
Lycopodium spp.	Group 3	
Persoonia pinifolia	Group 3	
Philotheca obovalis	Group 3	
Blanfordia spp.	Group 4	#
Doryanthes excelsa	Group 4	

Xanthorrhoea spp.	Group 4	#
Boronia deanei	Group 5	
Boronia umbellata	Group 5	
Craspedia spp.	Group 5	
Dicranopteris linearis	Group 5	
Doryanthes palmeri	Group 5	
Grevillea longifolia	Group 5	
Isopogon fletcheri	Group 5	
Leptospermum spectabile	Group 5	
Macrozamia johnsonii	Group 5	
Macrozamia pauli-guiliemi ssp. flexuosa	Group 5	
Persoonia spp.	Group 5	#
Phebalium bifidum	Group 5	
Phebalium glandulosum ssp. eglandulosum	Group 5	
Philotheca ericifolia	Group 5	
Philotheca obovatifolia	Group 5	
Telopea spp.	Group 5	
PART 2		
Ceratopetaum gummiferum	Group 1	
Isopogon spp.	Group 1	
Swainsona formosa	Group 1	
Telopea aspera	Group 2	
Telopea mongaensis	Group 2	
Telopea oreades	Group 2	
Telopea speciosissima	Group 2	
Wollemia nobilis	Group 2	
Arecaceae	Group 3	
Asplenium australasicum	Group 3	
Asplenium falcatum	Group 3	
Cyathea spp.	Group 3	
Dicksonia spp.	Group 3	
Orchidaceae	Group 3	#
Platycerium	Group 3	
Spagnum spp	Group 3	# (group 2 vegetation)
Todea Barbara	Group 3	
Xanthorrhoea spp.	Group 3	#
Casuarina cunninghamiana	Group 4	
Pandanus spp.	Group 4	

APPENDIX 13 – KOALA HABITAT ASSESSMENT

	Stand Importance Value (%) of canopy trees based on relative density within each vegetation group (SEPP 44 CLASSIFICATION)				
	GROUP 2/1	**GROUP 2/2**	**GROUP 3**	**GROUP 4**	**GROUP 5**
No of quadrats	7	2	15	16	3
Tree Species					
Allocasuarina littoralis			3.95		
Angophora costata	17.30		23.16	24.77	
Corymbia gummifera			0.57		
Eucalyptus carnea					
Eucalyptus eugenioides			22.50	8.57	
Eucalyptus fergusonii subsp. fergusonii				0.95	
Eucalyptus microcorys			1.13	42.85	30.76
Eucalyptus pilularis			1.69	15.24	
Eucalyptus piperita			29.39	0.95	7.7
Eucalyptus propinqua			0.56	4.77	
Eucalyptus resinifera subsp. hemilampra	75.00	10	16.38		
Eucalyptus robusta	3.85	90			15.38
Eucalyyptus saligna				0.95	
Lophostemon confertus					
Syncarpia glomulifera	3.85		0.57	0.95	46.16
TOTAL	100	100	100	100	100

CORE KOALA HABITAT

	Stand Importance Value (%) of canopy trees based on relative density within each vegetation group (Phillips, 2000)				
	GROUP 2/1	**GROUP 2/2**	**GROUP 3**	**GROUP 4**	**GROUP 5**
No of quadrats	7	2	15	16	3
Tree Species					
Allocasuarina littoralis			3.95		
Angophora costata	17.30		23.16	24.77	
Corymbia gummifera			0.57		
Eucalyptus carnea					
Eucalyptus eugenioides			22.50	8.57	
Eucalyptus fergusonii subsp. fergusonii				0.95	
Eucalyptus microcorys			1.13	42.85	30.76
Eucalyptus pilularis			1.69	15.24	
Eucalyptus piperita			29.39	0.95	7.7
Eucalyptus propinqua			0.56	4.77	
Eucalyptus resinifera subsp. hemilampra	75.00	10	16.38		
Eucalyptus robusta	3.85	90			15.38
Eucalyyptus saligna				0.95	
Lophostemon confertus					
Syncarpia glomulifera	3.85		0.57	0.95	46.16
TOTAL	100	100	100	100	100

Primary Habitat (capable of supporting 1-2 koalas)

Secondary Habitat Class A (capable of supporting between 6-48 koalas)

Secondary Habitat Class B (capable of supporting perhaps one koala)

	Stand Importance Value (%) of canopy trees based on relative density within each vegetation group (Callaghan *unpublished*)				
	GROUP 2/1	**GROUP 2/2**	**GROUP 3**	**GROUP 4**	**GROUP 5**
No of quadrats	7	2	15	16	3
Tree Species					
Allocasuarina littoralis			3.95		
Angophora costata	17.30		23.16	24.77	
Corymbia gummifera			0.57		
Eucalyptus carnea					
Eucalyptus eugenioides			22.50	8.57	
Eucalyptus fergusonii subsp. fergusonii				0.95	
Eucalyptus microcorys			1.13	42.85	30.76
Eucalyptus pilularis			1.69	15.24	
Eucalyptus piperita			29.39	0.95	7.7
Eucalyptus propinqua			0.56	4.77	
Eucalyptus resinifera subsp. hemilampra	75.00	10	16.38		
Eucalyptus robusta	3.85	90			15.38
Eucalyyptus saligna				0.95	
Lophostemon confertus					
Syncarpia glomulifera	3.85		0.57	0.95	46.16
TOTAL	100	100	100	100	100

Primary Habitat

Secondary habitat Class A

	Stand Importance Value (%) of canopy trees based on relative density within each vegetation group (Callaghan *et al,* 2011)				
	GROUP 2/1	**GROUP 2/2**	**GROUP 3**	**GROUP 4**	**GROUP 5**
No of quadrats	7	2	15	16	3
Tree Species					
Allocasuarina littoralis			3.95		
Angophora costata	17.30		23.16	24.77	
Corymbia gummifera			0.57		
Eucalyptus carnea					
Eucalyptus eugenioides			22.50	8.57	
Eucalyptus fergusonii subsp. fergusonii				0.95	
Eucalyptus microcorys			1.13	42.85	30.76
Eucalyptus pilularis			1.69	15.24	
Eucalyptus piperita			29.39	0.95	7.7
Eucalyptus propinqua			0.56	4.77	
Eucalyptus resinifera subsp. hemilampra	75.00	10	16.38		
Eucalyptus robusta	3.85	90			15.38
Eucalyyptus saligna				0.95	
Lophostemon confertus					
Syncarpia glomulifera	3.85		0.57	0.95	46.16
TOTAL	100	100	100	100	100

Highest ranked koala use

Key Eucalypt Species

Quadrat sites for each vegetation group for measuring SIV%				
GROUP 2/1	**GROUP 2/2**	**GROUP 3**	**GROUP 4**	**GROUP 5**
Group 2/1 Site 1	Group 2/2 Site 1	Group 3 Site 1	Group 4 Site 1	Group 1 Site1
Group 2/1 Site 2	BUL ST2 HS	Group 3 Site 2	Group 4 Site 2	Group 1 Site2
Group 2/1 Site 3		Group 3 Site 3	Group 4 Site 3	Group 1 Site3
Group 2/1 Site 4		Group 3 Site 4	Group 4 Site 4	
Group 2/1 Site 5		Group 3 Site 5	Group 4 Site 5	
Group 2/1 Site 6		Group 3 Site 6	Group 4 Site 6	
BUL ST2 EEC		Group 3 Site 7	Group 4 Site 7	
		Group 3 Site 8	Group Site 8	
		Group 3 Site 9	BUL ST2 SL4	
		Group 3 Site 10	BUL ST2 SU1	
		BUL ST2 SL1	BUL ST2 SU2	
		BUL ST2 SL2	BUL ST2 US 1	
		BUL ST2 SL3	BUL ST2 US2	
		BULST2 SL5	BUL ST2 US3	
		BULST2 SL6	BUL ST2 US5	
			BULST2 US6	

APPENDIX 14 - HABITAT ASSESSMENT SHEETS

Group 2/1 Vegetation *MELALEUCA FOREST WITH EMERGENTS IN AREAS OF IMPEDED DRAINAGE*

HABITAT ASSESSMENT

CO-ORDINATES..... SITE NO... Group 2/1 Site 1

(43)
3600

ATTRIBUTE	REMARKS
TREE DBH	500, 1000, 250, 300, 200, 250, 300, 500, 300
DEAD TREES	0
FALLEN TIMBER/LOGS	1%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Rock marked undulations - soaks
FRUIT/NECTAR PLANTS	Many melaleuca trees
FAUNAL REFUGES	Dense Gahnia radula cover

CO-ORDINATES..... SITE NO... Group 2/1 Site 2

2750

ATTRIBUTE	REMARKS
TREE DBH	250, 300, 200, 300, 600, 400, 400, 300
DEAD TREES	Nil
FALLEN TIMBER/LOGS	3%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Many melaleucas
FAUNAL REFUGES	Dense grass cover

CO-ORDINATES..... SITE NO... Group 2/1 Site 3

350
2600

ATTRIBUTE	REMARKS
TREE DBH	200, 200, 400, 350, 300, 350, 200, 250
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Many melaleucas
FAUNAL REFUGES	Dense sedge cover

HABITAT ASSESSMENT

CO-ORDINATES..... SITE NO. Group 2/1 Site 4

2250

ATTRIBUTE	REMARKS
TREE DBH	400, 300, 300, 200, 250, 800
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Many melaleucas
FAUNAL REFUGES	Dense ridge cover

CO-ORDINATES..... SITE NO. Group 2/1 Site 5

525D.

ATTRIBUTE	REMARKS
TREE DBH	1400, 250, 800, 900, 650, 400, 850,
DEAD TREES	1
FALLEN TIMBER/LOGS	20%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Many melaleucas
FAUNAL REFUGES	Dense ridge cover / Big old trees

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

HABITAT ASSESSMENT

CO-ORDINATES..... SITE NO... Group 2/1 site 6

2050

ATTRIBUTE	REMARKS
TREE DBH	1200, 200, 200, 450,
DEAD TREES	1
FALLEN TIMBER/LOGS	10%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Yes saturated soils
FRUIT/NECTAR PLANTS	Eucalyptus robusta
FAUNAL REFUGES	Dense sedge cover

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

Group 2/2 Vegetation *UPLAND OPEN SCRUB WITH EMERGENTS OF SWAMP MAHOGANY IN AREAS OF PERMANENT HIGH WATER TABLES*

HABITAT ASSESSMENT

CO-ORDINATES... 427472E 6446623N **SITE NO**... Group 2/2 site 1

ATTRIBUTE	REMARKS
TREE DBH	300, 300, 400, 300, 400, 300, 500,
DEAD TREES	1
FALLEN TIMBER/LOGS	1%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Saturated gley soils with above ground water
FRUIT/NECTAR PLANTS	Banksia robur Callistemon pachyphyllus Eucalyptus robusta
FAUNAL REFUGES	Dense sedge cover, pocked marked undulations

2500 (T)

CO-ORDINATES..... **SITE NO**.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

CO-ORDINATES..... **SITE NO**.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

Group 3 Vegetation *WOODLAND/FOREST ON ALUM MOUNTAIN VOLCANICS OVER LOWER COASTAL SLOPES AND PLAINS*

Coastal Plain 8th July 2010

HABITAT ASSESSMENT

CO-ORDINATES 427575E 6415827N **SITE NO.** Group 3 Site 1

(14)
3380

ATTRIBUTE	REMARKS
TREE DBH	300, 750, 600, 650, 1000
DEAD TREES	1
FALLEN TIMBER/LOGS	30%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Callistemon acuminatus ~~acuminatus~~ salignus
FAUNAL REFUGES	Dense undergrowth

CO-ORDINATES 427347E 6415878 **SITE NO.** Group 3 Site 2

1500
4500

ATTRIBUTE	REMARKS
TREE DBH	1250, 1500, 700, 450, 600
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil Banksia spinulosa, Banksia oblongifolia
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	Tree hollows

CO-ORDINATES 427429E 6415600N **SITE NO.** Group 3 Site 3

2950

ATTRIBUTE	REMARKS
TREE DBH	900, 200, 600, 250, 1500, 200
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Banksia spinulosa
FAUNAL REFUGES	Tree hollows

HABITAT ASSESSMENT

CO-ORDINATES..427..... SITE NO..Group 3 Site 4

ATTRIBUTE	REMARKS
TREE DBH	700, 300, 600, 200, 200
DEAD TREES	Nil
FALLEN TIMBER/LOGS	2%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Banksia spinulosa Melaleuca spp
FAUNAL REFUGES	Nil

2600

CO-ORDINATES..427436E6415400N SITE NO..Group 3 Site 5

ATTRIBUTE	REMARKS
TREE DBH	300, 1100, 300, 700, 800,
DEAD TREES	Nil
FALLEN TIMBER/LOGS	10%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Soaks along with standing wate
FRUIT/NECTAR PLANTS	Many melaleucas
FAUNAL REFUGES	Dense ridge cover dense grass cove

3200

CO-ORDINATES..427358E6415279 SITE NO..Group 3 site 6

ATTRIBUTE	REMARKS
TREE DBH	300, 600, 400, 200, 150, 250, 630, 500, 700
DEAD TREES	1
FALLEN TIMBER/LOGS	2%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Many Banksia spinulosa
FAUNAL REFUGES	Tree hollows

350

4300

HABITAT ASSESSMENT

CO-ORDINATES... 427 393E 6415 193 SITE NO... Group 3 Site 7

ATTRIBUTE	REMARKS
TREE DBH	350, 300, 300, 1100, 400, 450, 250 3150
DEAD TREES	Nil
FALLEN TIMBER/LOGS	4%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Some soaks
FRUIT/NECTAR PLANTS	Nil
FAUNAL REFUGES	Tree hollows

CO-ORDINATES.. 427388E 6415072 SITE NO... Group 3 site 8

ATTRIBUTE	REMARKS
TREE DBH	350, 250, 200, 300, 400, 350, 300, 250, 350, 200, 400, 250, 400, 500, 350, 5050
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Banksia oblongifolia Banksia spinulosa
FAUNAL REFUGES	Nil

CO-ORDINATES... 427334 6414868N SITE NO... Group 3 site 9

ATTRIBUTE	REMARKS
TREE DBH	300, 400, 200, 400, 300, 200, 300, 500, 250, 200, 250, 3300
DEAD TREES	
FALLEN TIMBER/LOGS	2%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Nil
FAUNAL REFUGES	Tree hollow

HABITAT ASSESSMENT

CO-ORDINATES 427010E 6415010N SITE NO. Group 3 Site 10

1850

ATTRIBUTE	REMARKS
TREE DBH	300, 300, 350, 400, 500
DEAD TREES	Nil 5%
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Nil
FAUNAL REFUGES	Nil

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

Group 4 Vegetation ***WOODLAND/TALL FOREST ON UPPER SLOPES OF ALUM MOUNTAIN VOLCANICS***

HABITAT ASSESSMENT

CO-ORDINATES 426714E 6411830N SITE NO. Group 4 site 1

1550

ATTRIBUTE	REMARKS
TREE DBH	600, 300, 300, 350
DEAD TREES	Nil
FALLEN TIMBER/LOGS	10%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Nil
FAUNAL REFUGES	Some logs with hollows

CO-ORDINATES 426788E, 6414688 SITE NO. Group 4 site 2

1800

ATTRIBUTE	REMARKS
TREE DBH	600, 700, 500
DEAD TREES	Nil
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Yes rocky debris
CAVES	No
WET AREAS/WATERBODIES	No
FRUIT/NECTAR PLANTS	No.
FAUNAL REFUGES	Rocks for reptiles

CO-ORDINATES 426943E 6414520N SITE NO. Group 4 site 3

2200

ATTRIBUTE	REMARKS
TREE DBH	600, 4000, 600, 600
DEAD TREES	1
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Rock debris
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Vines Eustrephus latifolius
FAUNAL REFUGES	Rocks : hollow logs

HABITAT ASSESSMENT

CO-ORDINATES 427139E 6414161N SITE NO. Group 4 site 4

(40)
1850

ATTRIBUTE	REMARKS
TREE DBH	1000, 650, 200
DEAD TREES	Nil
FALLEN TIMBER/LOGS	2
ROCK OUTCROPS	Some minor outcrops
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Nil
FAUNAL REFUGES	Rocky debris

CO-ORDINATES..... SITE NO. Group 4 site 5

1350

ATTRIBUTE	REMARKS
TREE DBH	200, 200, 650, 300
DEAD TREES	Nil
FALLEN TIMBER/LOGS	20%
ROCK OUTCROPS	Rock debris
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Some allocasuarinas
FAUNAL REFUGES	Rocks for reptiles

CO-ORDINATES 427491E 6413907N SITE NO. Group 4 site 6

2700

ATTRIBUTE	REMARKS
TREE DBH	300, 500, 500, 300, 300, 400, 400
DEAD TREES	1
FALLEN TIMBER/LOGS	2%
ROCK OUTCROPS	Rocky debris
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Some allocasuarina
FAUNAL REFUGES	Rock for reptiles

HABITAT ASSESSMENT

CO-ORDINATES 427402E 6413[redacted]N SITE NO. Group 4 site 7

ATTRIBUTE	REMARKS
TREE DBH	400, 300, 700, 300, 300, 300, 450, 300
DEAD TREES	1
FALLEN TIMBER/LOGS	5%
ROCK OUTCROPS	Rocky debris
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	Some Acacias and allocasuarinas
FAUNAL REFUGES	Rocks for reptiles

3050

CO-ORDINATES 427359E 6444416N (adjust slightly for position) SITE NO. Group 4 site 8

ATTRIBUTE	REMARKS
TREE DBH	300, 200, 300, 200, 250, 250, 450,
DEAD TREES	Nil
FALLEN TIMBER/LOGS	6%
ROCK OUTCROPS	Rock debris
CAVES	Nil
WET AREAS/WATERBODIES	Nil
FRUIT/NECTAR PLANTS	a few Allocasuarinas
FAUNAL REFUGES	Rocks for reptiles.

1950

CO-ORDINATES..... SITE NO.....

ATTRIBUTE	REMARKS
TREE DBH	
DEAD TREES	
FALLEN TIMBER/LOGS	
ROCK OUTCROPS	
CAVES	
WET AREAS/WATERBODIES	
FRUIT/NECTAR PLANTS	
FAUNAL REFUGES	

Group 5 Vegetation ***RIPARIAN TALL FOREST ON ALLUVIUM ALONG FRYS CREEK***

HABITAT ASSESSMENT

CO-ORDINATES 427499E 6414996 SITE NO. Group 5 site 1

(13)
700

ATTRIBUTE	REMARKS
TREE DBH	300, 400
DEAD TREES	1
FALLEN TIMBER/LOGS	40%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Frys Creek
FRUIT/NECTAR PLANTS	Acmena smithii
FAUNAL REFUGES	Dense ridge cover

CO-ORDINATES 427 448E 6415167N SITE NO. Group 5 site 2

1550

ATTRIBUTE	REMARKS
TREE DBH	300, 300, 300, 400, 250,
DEAD TREES	Nil
FALLEN TIMBER/LOGS	8%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Frys Creek
FRUIT/NECTAR PLANTS	Acmena smithii, Melaleuca sp. Callistemon ~~acuminatus~~ salignus
FAUNAL REFUGES	Dense ridge cover

CO-ORDINATES 427428E 6415763 SITE NO. Group 5 site 3

2350

ATTRIBUTE	REMARKS
TREE DBH	700, 350, 300, 300, 400, 300,
DEAD TREES	0
FALLEN TIMBER/LOGS	20%
ROCK OUTCROPS	Nil
CAVES	Nil
WET AREAS/WATERBODIES	Frys Creek
FRUIT/NECTAR PLANTS	~~Acmena smithii Melaleuca spp.~~ Callistemon ~~acuminatus~~ salignus
FAUNAL REFUGES	Dense ridge cover; hollow logs

APPENDIX 15 - SQUIRREL GLIDER HABITAT ASSESSMENT SHEETS

Group 2/1 Vegetation *MELALEUCA FOREST WITH EMERGENTS IN AREAS OF IMPEDED DRAINAGE*

Squirrel Glider Assessment

GROUP EEC AREA (HA)

CO-ORDINATES..... SITE NO. Group 2/1 Site 1

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera	9	3	Nil	8m, 3.5
Angoph Dist.	1			
M. nodosa	High			
M. sieberi	medium			
Acacia spp.	3			
B. spinulosa	Low			
B. oblongifolia	3			
Dead Trees	Nil			

CO-ORDINATES..... SITE NO. Group 2/1 Site 2

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera	8	3	Nil	1L, 3m
Angoph costata	1			
M. nodosa	high			
M. sieberi	Nil			
Acacia spp.	Low			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees	Nil			

CO-ORDINATES..... SITE NO. Group 2/1 Site 3

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus resinifera	5	4	Nil	8m
Angoph costata	4			(M. sieberi)
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees	Nil			

GROUP EEC AREA (HA)

CO-ORDINATES.....SITE NO.....Group 2/1 site 4

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera	5	1		1.6
Angoph costata	1	1	Nil	
M. nodosa	High			
M. sieberi	Low			
Acacia spp.	Low			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees	Nil			

CO-ORDINATES.....SITE NO.....Group 2/1 Site 5

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera	6	6	Nil	2.M, 3.L
Angophy costata	1			
M. nodosa	high			
M. sieberi	Low			
Acacia spp.	low			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees				

CO-ORDINATES.....SITE NO.....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus resinifera				
M. nodosa				
M. sieberi				
Acacia spp.				
B. spinulosa				
B. oblongifolia				
Dead Trees				

CO-ORDINATES.....SITE NO. Group 2/1 site 6

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollowed
Eucalyptus ~~robusta~~ robusta	2	2		2 x m
Eucalyptus sp. gum	2		Nil	
M. nodosa	Low			
M. sieberi				
Acacia spp.	Low			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees allocasuarina	Nil			

Group 2/2 Vegetation *UPLAND OPEN SCRUB WITH EMERGENTS OF SWAMP MAHOGANY IN AREAS OF PERMANENT HIGH WATER TABLES*

GROUP 2/2- EUCALYPTUS ROBUSTA (2.22 HA)

CO-ORDINATES.................................SITE NO. group 2/2 site 1

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) hollows
callist. pachyphyl	high			
Eucalyptus robusta	7	3	1	1 x m
Acacia spp.	nil			
Angophora costata				
Banksis robur	high			
Dead Trees	Nil few			

in flower

some flowers

nil sito.

CO-ORDINATES.................................SITE NO.....................................

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus robusta				
Acacia spp.				
Angophora costata				
Banksis robur				
Dead Trees				

CO-ORDINATES.................................SITE NO.....................................

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus robusta				
Acacia spp.				
Angophora costata				
Banksis robur				
Dead Trees				

CO-ORDINATES.................................SITE NO.....................................

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus robusta				
Acacia spp.				
Angophora costata				
Banksis robur				
Dead Trees				

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 Site 1

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus [illegible]	4	4	Nil	1 x L
Eucalyptus piperita				2 x S
Corymbia gummifera				
Eucalyptus eugenioides				
Angophora costata				
Melaleuca nodosa	low			
Melaleuca sieberi	low			
Acacia spp.	Medium			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	1			

Syncarpia glomulifera

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 2

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Allocasuarina sp	low			
Eucalyptus piperita	4	5	Nil	8M, 1 x L
Corymbia gummifera				
Eucalyptus eugenioides				
Angophora costata	1			
Melaleuca nodosa	Nil			
Melaleuca sieberi	low			
Acacia spp.	high			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	high			

Xanthorrhoea

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 3

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
~~Eucalyptus [illegible]~~	4			1 x L
Eucalyptus piperita				
Corymbia gummifera				
Eucalyptus eugenioides				
Angophora costata	2			
Melaleuca nodosa	Nil			
Melaleuca sieberi	low			
Acacia spp.	high			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	Nil			

Xanthorrhoea sp medium

Allocasuarina ~~high~~ Nil.

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 4

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Euc. resinif	2			Hollows
Eucalyptus piperita	1	2		
Corymbia gummifera			Nil	Nil
Eucalyptus eugenioides				
Angophora costata	2			
Melaleuca nodosa	Nil			
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	Nil			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group3 site 5

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
E. resinifera	3			5 x 6m
Eucalyptus piperita				1 x 5
Corymbia gummifera				
Eucalyptus eugenioides		3	Nil	
Angophora costata	2			
Melaleuca nodosa	Nil			
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	Nil			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 6

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus piperita	4			Hollows 4 x m
Corymbia gummifera				
Eucalyptus eugenioides	1	7	Nil	
Angophora costata	3			
Melaleuca nodosa	Nil			
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	Nil			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 7

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
E. resinifera	3			
Eucalyptus piperita	1			
Corymbia gummifera				Nil
Eucalyptus eugenioides				
Angophora costata	3			
Melaleuca nodosa	~~###~~ medium	~~###~~	Nil	
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	Nil			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 8.

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus piperita	II			
Corymbia gummifera				Nil
Eucalyptus eugenioides	1			
Angophora costata		1	Nil	
Melaleuca nodosa	} low			
Melaleuca sieberi	Nil			
Acacia spp.	high			
Banksia spinulosa	high			
Banksia oblongifolia	Nil			
Dead Trees	Nil			
Xanthorrhoea				
allocasuarina				

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....**SITE NO**.....Group 3 site 9

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus piperita				
Corymbia gummifera				1XM
Eucalyptus eugenioides				
Angophora costata	3			
Melaleuca nodosa	Nil	3	Nil	
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees	1			
Xanthorrhoea	high			
allocasuarina	low			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....SITE NO.. Group 3 site 10

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus piperita				
Corymbia gummifera				
Eucalyptus eugenioides	3			Nil.
Angophora costata	2	3	Nil	
Melaleuca nodosa	Nil			
Melaleuca sieberi	Nil			
Acacia spp.	Nil			
Banksia spinulosa	Nil			
Banksia oblongifolia	Nil			
Dead Trees				
Pallid Hollow	Nil			

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....SITE NO.....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus piperita				
Corymbia gummifera				
Eucalyptus eugenioides				
Angophora costata				
Melaleuca nodosa				
Melaleuca sieberi				
Acacia spp.				
Banksia spinulosa				
Banksia oblongifolia				
Dead Trees				

GROUP 3- SYDNEY RED GUM/STRINGYBARK/RED BLOODWOOD (94.20 HA)

CO-ORDINATES.....SITE NO.....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus piperita				
Corymbia gummifera				
Eucalyptus eugenioides				
Angophora costata				
Melaleuca nodosa				
Melaleuca sieberi				
Acacia spp.				
Banksia spinulosa				
Banksia oblongifolia				
Dead Trees				

Group 4 Vegetation ***WOODLAND/TALL FOREST ON UPPER SLOPES OF ALUM MOUNTAIN VOLCANICS***

GROUP EEC AREA (HA)

CO-ORDINATES.....SITE NO....group 4 site 1....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera				
Eucaly prop	3	2	Nil	Nil
Eucalyp maid	1			
M. nodosa	Nil			
M. sieberi				
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia				
Dead Trees	Nil			

CO-ORDINATES.....SITE NO....group 4 site 2....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera				
Eucaly prop	1	3	Nil	Nil
Eucalypt pulv-S	2			
M. nodosa	Nil			
M. sieberi				
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia				
Dead Trees	Nil			

CO-ORDINATES.....SITE NO....group 4 site 3....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera	2			
E. cosiata	1	4	0	Nil
E. pulverus				
M. nodosa	Nil			
M. sieberi				
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia				
Dead Trees	Nil			

Xanthorrhoea new

GROUP EEC AREA (HA)

CO-ORDINATES.....SITE NO.....group 4 site 4

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera				
Eucalyp microc	1	2	Nil	Nil
Eucalyp micro	2			
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.				
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees				
allocasuarina sp	high			

CO-ORDINATES.....SITE NO.....group5 site 5

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera				
Eucalyp microc	3	2	Nil	Nil
Angophora cost	1			
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia				
Dead Trees				
allocasuarina	low			

CO-ORDINATES.....SITE NO.....group 5 site 6

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Angophora costata	1			
~~*Eucalyptus resinifera*~~				
Eucalyptus microc	2	4	Nil	Nil
Eucalypt sp	1			
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees	Nil			

GROUP EEC AREA (HA)

CO-ORDINATES.....SITE NO.....Groups 4 site 7

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus ~~resinifera~~ microcorys	5			
Eucalyptus spp.	1	3	Nil	Nil
Eucalyptus robusta	1			
M. nodosa	Nil			
M. sieberi	Low			
Acacia spp.	Nil			
B. spinulosa				
B. oblongifolia	Nil			
Dead Trees	1			
Xanthorrhoea	Nil			

CO-ORDINATES.....SITE NO.....Groups site 8

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Hollows
Eucalyptus resinifera				
Eucalyptus spp.	5	1	Nil	Nil
Eucalyptus robusta	2			
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.	Nil			
B. spinulosa				
B. oblongifolia	Nil			
Dead Trees	Nil			
Xanthorrhoea	Nil			

CO-ORDINATES.....SITE NO.....

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m)
Eucalyptus resinifera				
M. nodosa				
M. sieberi				
Acacia spp.				
B. spinulosa				
B. oblongifolia				
Dead Trees				

Group 5 Vegetation ***RIPARIAN TALL FOREST ON ALLUVIUM ALONG FRYS CREEK***

GROUP EEC AREA (HA)

CO-ORDINATES.....SITE NO.....Group 5 site 1

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Willows
Eucalyptus resinifera				
Eucalyptus [illegible]	2	1	No.	1 x L
Lomatia silaifolia	high			
M. nodosa }	low			
M. sieberi }				
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees				

Callistemon salignus / acuminatus high

CO-ORDINATES.....SITE NO.....Group 5 site 2

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Willows
~~*Eucalyptus resinifera*~~ microcorys	4			
Syncarpia glomulifera				Nil
			Nil	
M. nodosa }	Medium			
M. sieberi }				
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees				

Callistemon acuminatus Medium

salignus

CO-ORDINATES.....SITE NO.....Group 5 site 3

Species	No of trees/quadrat	No of trees dbh 350-1590mm	Trees with >4 hollows/branch	Distances to nearest tree (<7.2m) Willows
~~*Eucalyptus resinifera*~~ piperita Bobinica				
Eucalyptus [illegible]	1	3	Nil	
Syncarpia glomulifera	6			Nil
M. nodosa	Nil			
M. sieberi	Nil			
Acacia spp.	Nil			
B. spinulosa	Nil			
B. oblongifolia	Nil			
Dead Trees	Nil			

APPENDIX 16 –SUITABLE OWL ROOST TREE DETAILS

Number	Species	Height (m)	DBH (m)	Hollow	Easting	Northing
1	Stag	18	2.5	1 x large & 3 x medium branch	427207	6414015
2	Stag	18	1.3		427255	6413989
3	Stag	6	0.7	Medium vertical	427318	6414001
4	Peppermint	18	1.0	5 x medium & 1 x large branch	427501	6414049
5	Stag	16	2.5	Large vertical	427381	6414165
6	*A. costata*	16	1.0	1 x medium to large branch	427498	6414528
7	Peppermint	18	1.0	3 x large trunk	427807	6414264
8	*A. costata*	18	1.3	Large vertical	427994	6413997
9	Stag	8	2.5	Large vertical	427909	6414311
10	*A. costata*	8	1.5	Large vertical	427958	6414353
11	Stag	15	2.0	Large vertical & 1 x trunk	427442	6415110
12	Peppermint	17	2.0	3 x large trunk	427601	6415570
13	Stag	17	0.8	1 x large trunk	427338	6414906
14	*A. costata*	15	0.6	1 x medium to large trunk	427493	6414805
15	*A. costata*	10	0.9	1 x medium trunk	427651	6414299
16	Stringybark	12	1.0		428093	6414792
17	*E. robusta*	8	0.7	Large vertical	427594	6414702
18					427598	6416045
19					427543	6416042
20					427538	6416038
21					427537	6416035
22					427515	6416066
23					427448	6415607
24					427408	6415548

APPENDIX 17 –KOALA HABITAT ASSESSMENT

Group 2/1 Vegetation *MELALEUCA FORREST WITH EMERGENTS IN AREAS OF IMPEDED DRAINAGE*

7th July 2010.

KOALA HABITAT SURVEY SHEET

CO-ORDINATES 427628E 6416070N SITE NO. Group 2/1 Site 1

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,	10	
C. gummifera					
E. camea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,2,1,1	30	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES 427487E 6416069N SITE NO. Group 2/1 Site 2

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	2%	
C. gummifera					
E. camea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1,1,1,1,1	40	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES 427515E 6416066N SITE NO Group 2/1 Site 3

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	10	
C. gummifera					
E. camea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1,1,1	50	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES 427 429E 6416 108N SITE NO. Group 2/1 Site 4

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,1,1,	10	
C. gummifera					
E. camea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1,1,1,1,	30	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO.....

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES. 427425E 6416 197N SITE NO. Group 2/1 Site 5

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	2	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1,1,	10	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group 2/1 Site 6

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P	2	20	
L. confertus					
S. glomulifera			2	10.	
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO.....

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

Group 2/2 Vegetation *UPLAND OPEN SCRUB WITH EMERGENTS OF SWAMP MAHOGANY IN AREAS OF PERMANENT HIGH WATER TABLES*

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....**SITE NO**...group 2/2 site 1

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P	1	30.	
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....**SITE NO**.....

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

Group 3 Vegetation *WOODLAND/FOREST ON ALUM MOUNTAIN VOLCANICS OVER LOWER COASTAL SLOPES AND PLAINS*

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 3 site 1

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	10	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1	40	
E. robusta	yes	P			
L. confertus					
S. glomulifera			1	5	
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 3 site 2

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	10	
C. gummifera					
E. carnea					
E. eugenioides		Sup	1	5	
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1,1,1	40	
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group3 site 4

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,	30	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1	5	
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,	30.	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group3 site 3

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1,1,1,1,	60	
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO..Group 3 site 5

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1	40	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1	30	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO..Group 3 site 6

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,1	10	
C. gummifera			1	5	
E. carnea					
E. eugenioides		Sup	1	5	
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1,1,1,1	40	
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1	5	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....**SITE NO.** Group 3 site 7

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,1,	10	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1	5	
E. propinqua		S			
E. resinifera subsp. hemilampra		S	1,1,1	30	
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....**SITE NO.** Group 3 site 8

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1,1,1,1,1,1,1,1,1,1,	50	
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

Group 4 Vegetation ***WOODLAND/TALL FOREST ON UPPER SLOPES OF ALUM MOUNTAIN VOLCANICS***

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 4 Site 1

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1	15	
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S	1,1,1,	40	
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 4 site 2

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1	15	
E. pilularis			1	30	
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group H Site 3

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1, 1,	40	
E. pilularis			1	10	
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group 4 site H

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1, 1,	20	
E. pilularis			1	20.	
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group 4 site 5

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1,1,1	40	
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO. Group 4 site 6

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1,1,	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1,1,	15	
E. pilularis			1,1,	10	
E. piperita ssp. piperita			1,1,	10	
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO... Group 4 site 8

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1,1	20	
E. pilularis			1,1,1,1,1	50	
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO.. Group 4 site 7

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata			1	5	
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1,1,1,1	40	
E. pilularis			1	5	
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera			1	5	
TOTAL					

Group 5 Vegetation ***RIPARIAN TALL FOREST ON ALLUVIUM ALONG FRYS CREEK***

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 5 site 1

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P	1,1,	10	
L. confertus					
S. glomulifera					
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO...Group 5 site 2

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P	1,1,1,1,	50	
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P	1	[illegible]	
L. confertus					
S. glomulifera			1	10	
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO....Lyaup5 site3

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita			1	15	
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera			1,1,1,1,	45-	
TOTAL					

KOALA HABITAT SURVEY SHEET

CO-ORDINATES.....SITE NO.....

List of overstorey trees on subject site	SEPP 44 listed	NSW KRP listed	No tree species in quadrat	% in quadrat (SEPP 44)	NSW KRP- P, S, Sup
A. costata					
C. gummifera					
E. carnea					
E. eugenioides		Sup			
E. fergusonii ssp fergusonii					
E. microcorys	yes	P			
E. pilularis					
E. piperita ssp. piperita					
E. propinqua		S			
E. resinifera subsp. hemilampra		S			
E. robusta	yes	P			
L. confertus					
S. glomulifera					
TOTAL					

APPENDIX 18 – VEGETATION COMMUNITY CONSERVATION STATUS SUMMARY SHEET

This Survey	Great Lakes Council equivalent	Forest Ecosystems classification (northern region)(Based on Matt Bell at this stage)	Benson & Hager (1994)	Griffiths et. al. (1994)	Somerville (2009)	Overall status
Stunted forest on Alum Mountain volcanics **Medium conservation**	Brushbox stunted forest/ woodland	Regionally rare **Regional conservation**	**Inadequately conserved over all of its range**	No equivalent	No equivalent	**Regional Conservation Significance**
Melaleuca forest with emergents in areas of impeded drainage **High conservation**	Red Mahogany/paperbark swamp sclerophyll forest and woodland	Regionally rare **Regional conservation** **Considered EEC**	**Poorly or not conserved.**	No equivalent	MU 180 Melaleuca nodosa forest **No conservation details available**	**State Conservation Significance**
Upland open scrub with emergents of Swamp Mahogany in areas of permanent high water tables **High conservation**	Swamp Mahogany wet heath low swamp sclerophyll forest and woodland	Regionally vulnerable **Regional conservation**	Not recognised at this scale	No equivalent	MU 171 *Leptospermum liversidgei*/ Crimson Bottlebrush wallum wet heath **No conservation details available**	**Regional Conservation Significance**
Woodland/forest on Alum Mountain volcanic over lower coastal slopes & plains **Medium conservation**	Red Mahogany/Sydney Peppermint/Red Bloodwood dry sclerophyll forest & woodland	Regionally rare or severely depleted **Regional conservation**	**Inadequately conserved over all of its range**	No equivalent	MU 89 Smooth-barked Apple/ Red Bloodwood/Brown Stringybark/ Wiry Panic heathy open forest or MU 34 Pink Bloodwood/Thin-leaved Stringybark/Grey Ironbark shrubby	**Regional Conservation Significance**

					grass forest on ranges **No conservation details available**	
Woodland tall forest on upper slopes of Alum Mountain volcanics **Medium conservation**	Tallowood/Blackbutt/ Sydney Peppermint wet to dry sclerophyll forest & woodland	Regionally rare **Regional conservation**	**Not or poorly conserved**	*E. microcorys* dry sclerophyll forest (MU 35081) 15.5ha conserved in Booti Booti NP	No equivalent	**Regional Conservation Significance**
Riparian tall forest on alluvium along Frys Creek **High conservation**	Smooth barked Apple/ Turpentine/Sydney Peppermint riparian tall forest	Severely depleted **Regional conservation**	Not recognised at this scale	No equivalent	MU 90 Smooth-barked Apple open forest on coastal lowlands **No conservation details available**	**Regional Conservation Significance**

APPENDIX 19- GRID CO-ORDINATES OF VEGETATION COMMUNITY BOUNDARIES

Veg comm	easting	northing
Group 5/	427456	6415818
Group 3	427428	6415799
	427423	6415786
	427416	6415773
	427411	6415763
	427419	6415747
	427425	6415729
	427440	6415712
	427463	6415687
	427475	6415704
	427478	6415704
	427490	6415700
	427501	6415617
	427506	6415669
	427520	6415656
	427503	6415648
	427504	6415637
	427509	6415625
	427539	6415630
	427550	6415631
	427575	6415618
	427596	6415630
	427610	6415637
	427625	6415623
	427616	6415602
	427617	6415595
	427619	6415583
	427629	6415571
	427657	6415587
	427667	6415588
	427677	6415588
	427671	6415601
	427679	6415623
	427674	6415644
	427673	6415666
	427653	6415672
	427644	6415677
	427634	6415657
	427626	6415651
	427610	6415652
	427600	6415648
	427581	6415647

	427562	6415645
	427544	6415656
	427535	6415661
	427520	6415677
	427524	6415705
	427526	6415714
	427519	6415728
	427513	6415731
	427501	6415731
	427503	6415720
	427487	6415717
	427484	6415718
	427482	6415720
	427460	6415726
	427450	6415732
	427443	6415753
	427436	6415769
	427456	6415779
Group 5/	427556	6415309
Group 3	427545	6415291
	427532	6415282
	427535	6415267
	427532	6415258
	427521	7415240
	427515	6415224
	427494	6415213
	427466	6415195
	427452	6415186
	427452	6415175
	427446	6415156
	427447	6415138
	427456	6415131
	427454	6415117
	427453	6415103
	427442	6415092
	427445	6415080
	427475	6415072
	427476	6415105
	427492	6415134
	427485	6415147
	427485	6415167
	427495	6415184
	427506	6415192
	427521	6415199
	427528	6415212

	427530	6415228
	427539	6415244
	427545	6415254
	427552	6415274
	427563	6415292
Group 5/	427463	6415037
Group 3	427475	6415051
	427486	6415044
	427504	6415029
	427516	6415015
	427515	6414996
	427517	6414979
	427521	6414971
	427531	6414959
	427520	6414946
	427509	6414971
	427500	6414982
	427499	6414999
	427493	6415025
	427478	6415037
	427461	6415044
	427454	6415051
EEC/GRP3	427754	6415992
Group 2/1-	427709	6416002
Group 3	427679	6416016
	427625	6416044
	427604	6416054
	427587	6416025
	427587	6415999
	427577	6415972
	427566	6415987
	427556	6416015
	427525	6416024
	427468	6416048
	427439	6416065
	427427	6416016
	427397	6416066
	427380	6416085
	427393	6416098
	427392	6416124
	427383	6416135
	427361	6416138
	427364	6416179
	427390	6416191

	427408	6416224
	427438	6416247
	427462	6416257
	427436	6416280
	427434	6416331
	427482	6416336
	427485	6416348
	427455	6416358
	427480	6416396
	427500	6416364
	427510	6416336
	427530	6416343
	427527	6416357
	427540	6416389
	427546	6416407
	427546	6416326
	427557	6416283
	427584	6416269
	427611	6416273
	427033	6416291
	427627	6416311
	427645	6416323
	427652	6416355
	427660	6416376
Group 2/2	427285	6414549
Group 3	427283	6414562
	427287	6414569
	427291	6414569
	427317	6414577
	427330	6414586
	427348	6414589
	427336	6414574
	427330	6414573
	427336	6414561
	427302	6414561
Group 2/2	427491	6414596
Group 4	427471	6414596
	427454	6414578
	427458	6414567
	427443	6414566
	427442	6414562
	427408	6414564
	427392	6414575
Group 2/2	427386	6414607

Group 3	427385	6414626
	427360	6416645
	427343	6414664
	427324	6414671
	427324	6414692
	427353	6414714
	427373	6414732
	427384	6414738
	427403	6414740
	427422	6414732
	427452	6414731
	427478	6414749
	427493	6414726
	427496	6414726
Group 3/	427392	6414575
Group 4	427388	6414575
	427361	6414545
	427343	6414560
	427266	6414542
	427222	6414540
	427224	6414555
	427236	6414586
	427224	6414603
	427218	6414616
	427203	6414636
	427229	6414650
	427209	6414707
	427173	6414740
	427146	6414760
	427111	6414759
	427076	6414768
	427007	6414759
	426973	6414771
	426937	6414771
	426937	6414794
	426920	6414809
	426920	6414809
	426926	6414816
	426879	6414834
	426807	6414867
	426777	6414875
	426754	6414901
	426773	6414956
	426737	6415016
	426674	6415042

	426629	6415059
	426632	6415079
	426620	6415096
	426583	6415122
	426583	6415137
	426572	6415140
Group 1/	426805	6414407
Group 4	426820	6414403
	426836	6414379
	426850	6414349
	426849	6414343
	426833	6414343
	426808	6414391
	426793	6414358
	426799	6414379
	426799	6414400

APPENDIX 20 – DETAILS OF *GALIUM AUSTRALE*

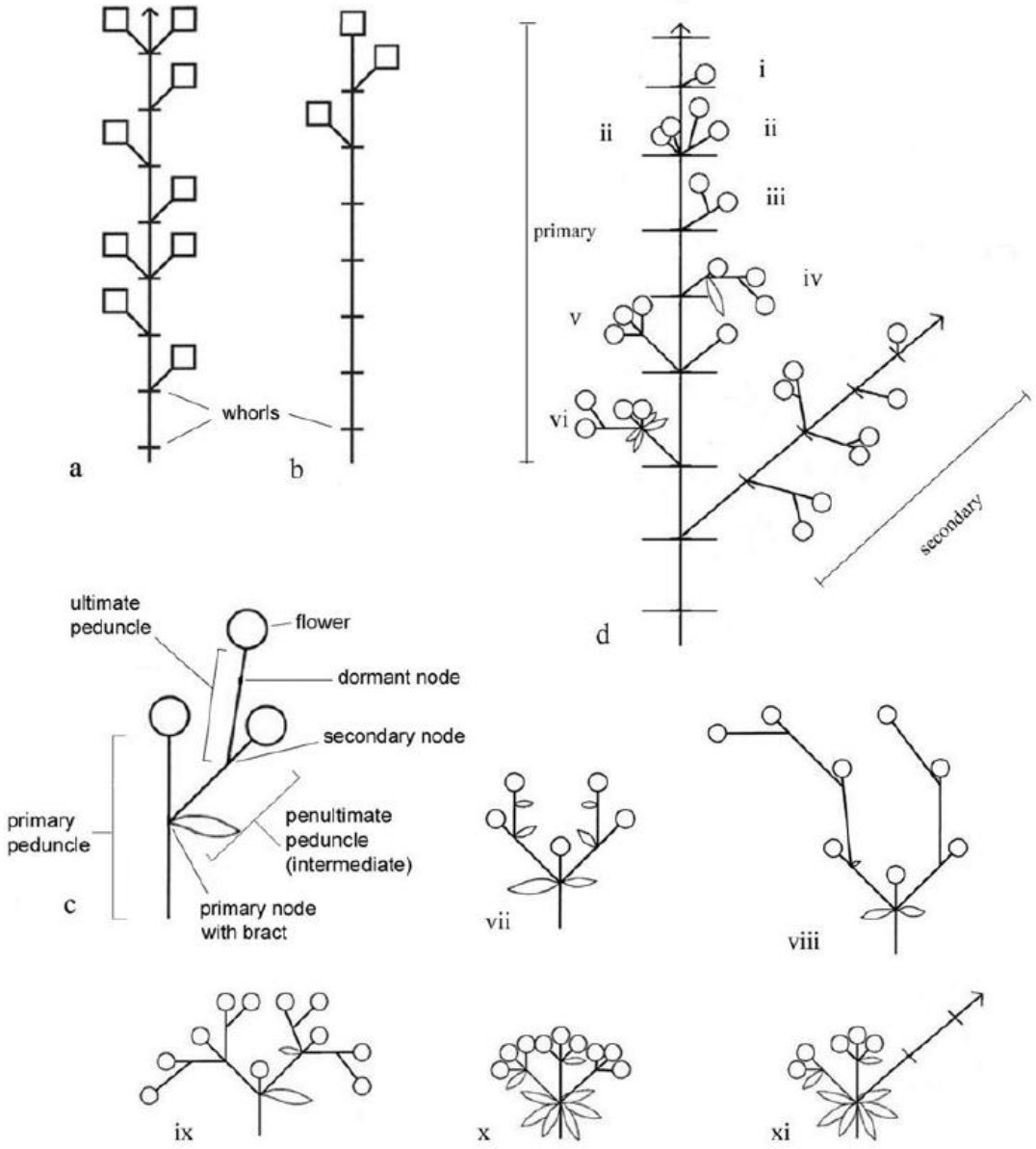


Figure 3. Inflorescences and cymes (schematic). a. Extended type, indeterminate. b. Soon terminating (each box represents a cyme). c. A complex cyme with monochasial branching in *Galium*, displaying cyme terminology. d. Stem bearing a primary and secondary inflorescence. Flowers represented by circles. Cyme variation (i–vi drawn in d.; vii–xi drawn separately): i. Solitary flower; ii. Simple, monochasial, with ultimate peduncle inserted in proximal half or at base (e.g. *G. leiocarpum*); iii. Simple monochasium with ultimate peduncle inserted distally; iv. Complex monochasium with bract at primary node subtending penultimate peduncle (e.g. common in *G. curvihirtum*); v. Simple dichasium (e.g. commonly seen in *G. ciliare* subsp. *ciliare* & *G. australe*); vi. Complex: dichasial then monochasial branching; whorl at first node; vii. Complex: bract at each node including at quiescent nodes on ultimate peduncle (e.g. *G. bulliformis*); viii. Extended monochasial branching (e.g. *G. migrans* subsp. *inversum*); ix. Two dichasial orders of branching (e.g. *G. polyanthum*); x. Whorl at first node, dichasial branching, corymbiform arrangement (typical of *Asperula*); xi. Similar to x. but a shoot growing on from terminal cyme (e.g. *A. pusilla*).

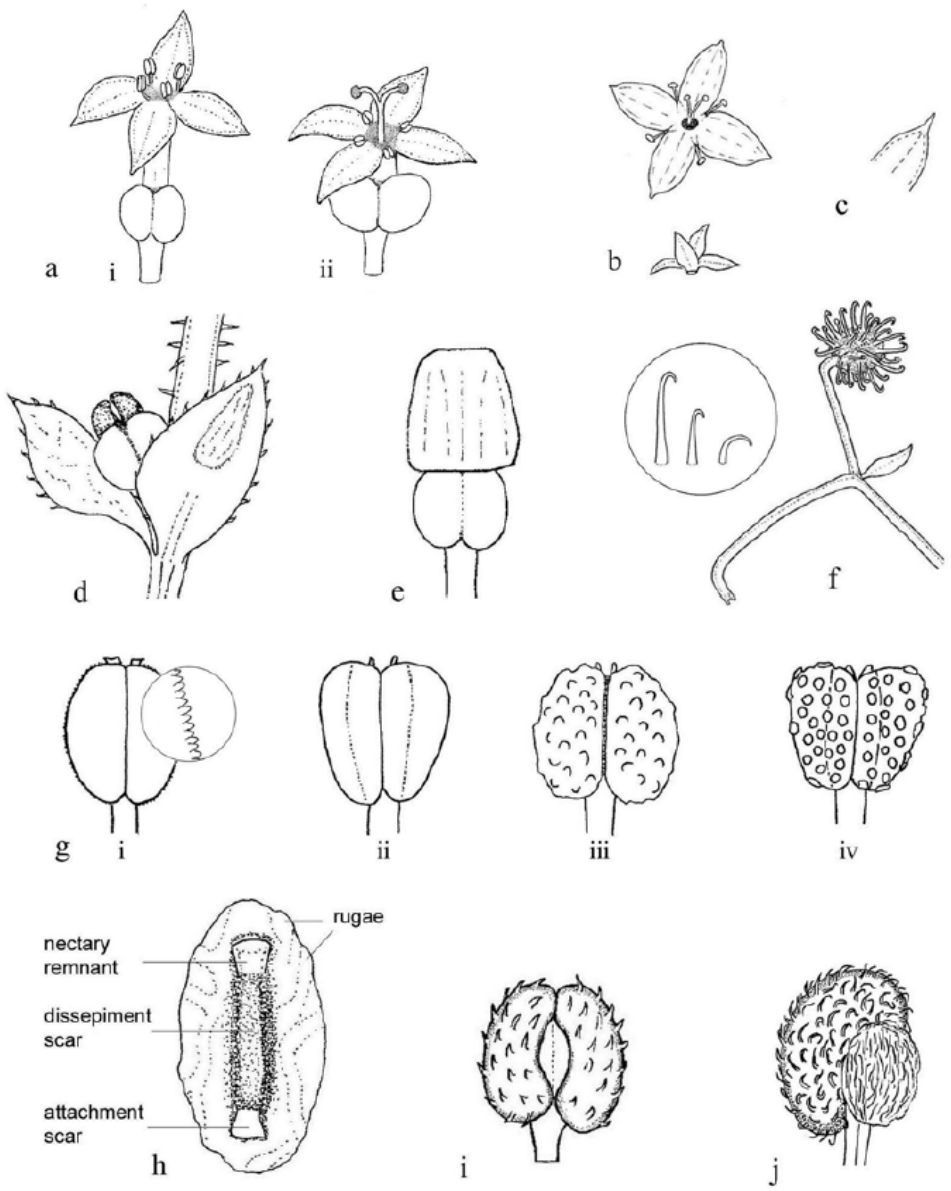


Figure 4. Flowers and fruit. a. Flowers in *Asperula* (face view of ovary): i. male flower; ii. female flower, showing a relatively broad ovary with a deep sinus as seen in *A. wimmerana*. b. Flower in *Galium* (view from above and side view of corolla). Note relatively small anthers and stigmata compared to *Asperula*. c. Apiculate corolla-lobe apex (*G. migrans*); d. Flower in axil of *G. microlobum*; corolla full-sized but unopened. e. Flower in late bud (*G. gaudichaudii* subsp. *gaudichaudii*; drawn from pressed specimen so corolla squashed over top of ovary). f. Portion of cyme of *Galium densum*; inset shows close-up of a mericarp hair of *G. densum* (l), and for comparison hairs of *G. australe* (middle) and *G. curvihirtum* (r). g. Ovary/developing fruit (face view): i. taller than broad & papillose (e.g. *G. migrans* subsp. *migrans*) including close-up of edge view of surface; ii. obovoid (e.g. *G. ciliare*); iii. pustular (*G. leptogonium*); iv. pustular (*G. roddii*). h. Mericarp, medial view (*G. compactum*). i. Pair of mericarps (*G. leiocarpum*). j. Mericarp with associated unfertilised carpel (*G. curvihirtum*).

Key to native species of *Galium*

Notes for key:

- identification will normally require magnification
- all measurements are based on herbarium specimens
- surface features of ovaries are generally best assessed when corolla has withered or fallen
- for terminology refer to notes above and figures 1–4 (pp. 41-44)

1	Fruit with spreading hairs regularly hooked at the very tip and extending 0.3 mm or more out from surface (hairs somewhat antrorse-appressed early in flowering) **2**
1:	Fruit glabrous or hairs not entirely as above **4**
2	Corolla ≥ 4 mm diam., with lobes hairy abaxially; erect corolla 1.8–3.0 mm long; mericarps 1.6–2.4 mm long; stems, leaves and peduncles densely hairy with fine spreading hairs generally > 0.5 mm long ..... ***4. G. albescens***
2:	Corolla < 4 mm diam., glabrous; erect corolla 0.7–1.5 mm long; mericarps 1.0–1.4 mm long; stems, leaves and peduncles with indumentum various, uncommonly both densely hairy and with hairs > 0.5 mm long **3**
3	Longest intermediate or ultimate peduncles in an inflorescence > 5 mm long, becoming curved to hooked c. 1 mm below summit post-flowering; inflorescences soon terminating; fruit with hairs ≥ 0.5 mm long ..... ***5. G. densum***
3:	Longest intermediate or ultimate peduncle in an inflorescence < 5 mm long, remaining straight; inflorescences mostly extended; fruit with hairs ≤ 0.5 mm long ..... ***3. G. australe***
4	Leaves, stipules and bracts lacking glandular cells; mericarps longitudinally rugose (leaves large and tending to spathulate with conspicuous petiole-like portions; far eastern forests) **5**
4:	Leaves, stipules and bracts in inflorescences developing glandular cells; mericarps not rugose or rugae reticulate **8**
5	Cymes much shorter than whorls ..... ***1. G. liratum***
5:	Cymes c. equal to or longer than whorls **6**
6	Leaves with l:w ratio > 3.5 (narrow-elliptic or oblanceolate, sometimes slightly spathulate); developing and mature fruit with a more or less smooth surface (New Zealand) ..... ***G. trilobum*** (see **1.**)
6:	Leaves with l:w ratio < 3.5 (narrowly to broadly spathulate); developing fruit bulliform **7**
7	Leaves to 20 mm long, broad-spathulate with apex mostly obtuse to rounded except for a minute acuminate point; cymes mostly > 4-flowered; fruit acutely bulliform ..... ***2. G. spathulatum***
7:	Leaves to 10 mm long, mostly narrow-spathulate with apex acuminate; cymes 1–4-flowered; fruit rounded bulliform (New Zealand) ..... ***G. sp.*** (see **1.**)
8	Stem-angles broader than faces (examine axis of primary inflorescences) **9**
8:	Stem-angles narrower than faces (examine axis of primary inflorescences) **12**
9	Longest ultimate peduncle < 2 mm long **10**
9:	Longest ultimate peduncle > 2 mm long **11**
10	Ovaries dull, smooth except for scattered pustules (south-eastern New South Wales) ..... ***8. G. roddii***
10:	Ovaries without pustules but with a glistening minutely papillose surface (South Australia and southern Victoria) ..... ***16. G. compactum***
11	Ovaries with hairs 0.3–0.6 mm long (Central Tablelands of New South Wales) ..... ***14. G. bungoniensis***
11:	Ovaries glabrous or with hairs 0.1–0.2 mm long (Flinders Ranges of South Australia) ..... ***15. G. migrans***
12	Whorls below primary inflorescences with stipules less than half length of leaves; corolla to 1.6 mm diam. ..... ***12a. G. binifolium*** subsp. ***binifolium***
12:	Whorls below primary inflorescences with stipules more than half length of leaves; corolla diameter various, up to 4 mm diam. **13**
13	Corolla c. 1 mm diam.; cymes mostly 4- or more-flowered and exceeding whorls; mericarps slightly bulliform, c. 1 mm diam.; bracts present at all cyme-nodes and often developed on ultimate peduncles (arid South Australia) ..... ***11. G. bulliformis***
13:	Corolla > 1 mm diam. or if not then not with the above combination of characters **14**

Galium trilobum Colenso has fruit of similar size to *G. liratum* but the surface is smooth or only minutely wrinkled at maturity. Its leaves are narrow-elliptic to oblanceolate or sometimes slightly narrow-spathulate unlike the markedly spathulate leaves of *G. liratum*, *G. spathulatum* and an unnamed New Zealand taxon. This last entity is similar to *G. liratum* in terms of its bulliform ovary/fruit surface and in the number of flowers per cyme but it has much longer primary peduncles. Specimens recorded of this entity are: Cape Palliser, Wellington (*D.Bowen 14787*, AD; dupl. in NZFRI Rotorua *n.v.*), Canterbury, (*Haast*, MEL), Cape Palliser lighthouse, Wairarapa, Wellington Land District (*P.J. de Lange 1789* MEL, dupl in CHR *n.v.*), and Worryline Stream, Mount Cook, (*A.M.Buchanan s.n.* HO).

Hybrids: A specimen from Bega, New South Wales (*S.J.Forbes 891* MEL) appears to be a hybrid: *G. liratum* × *G. binifolium* subsp. *binifolium*.

2. *Galium spathulatum* I.Thomps., *sp. nov.*

A G. lirato *N.A.Wakef. apicibus foliorum obtusioribus, cymis longioribus, floribus pluribus, ovario minute muriculato differt.*

Type: **QUEENSLAND**. West of Beta Creek, Eungella National Park, *A.R.Bean 4488*, 27 May 1992; holo: BRI.

Herbs, generally sparsely haired, with moderately coarse hairs to c. 0.5 mm long; rhizomes and rootstock not seen. *Stems* to c. 1 mm diam., with slender angles, with hairs retrorse; whorls 4-partite, with stipules slightly shorter than or similar to leaves throughout. *Leaves* spathulate, 6–25 mm long, 3–10 mm wide, with l:w ratio mostly 1.5–3, with petiole-like portion mostly 3–6 mm long; margin flat or narrowly recurved; apex rounded but also with a minute apiculation, without a terminal hair; adaxial surface with midrib variably distinct; abaxial surface with midrib distinct throughout length, lacking glandular cells. *Inflorescences* extended; cymes mostly 4–10-flowered, occasionally fewer, usually equal to or exceeding whorls when mature; primary peduncle 5–35 mm long, glabrous or hairy; secondary peduncles inserted strongly distally; bracts longer than the peduncle they subtend; ultimate peduncles inserted variably, 0.5–3 mm long, glabrous. *Flowers*: corolla 1.5–2 mm diam., with lobes c. 1 mm long, not apiculate, cream or white (uncertain), glabrous; ovary c. circular in face view, c. 0.2 mm long, glabrous. *Fruit*: fruit-set percentage low, with unfertilised ovaries enlarging to c. 0.7 mm long; developing fruit dull, acutely and coarsely papillose; mericarps reniform, 1.5–1.8 mm long, c. 1 mm wide, dark-brown to blackish, longitudinally rugose; dissepiment scar c. 0.8 mm long. (Fig. 2d-i)

Flowers autumn.

Selected specimens: **QUEENSLAND**. Swampy Ridge, west of Eungella National Park, *A.R.Bean 4461*, 24.v.1992 (BRI); Mt Aberdeen National Park, W of Bowen, *P.I.Forster 9969*, *M.C.Tucker & G.Kenning*, 29.v.1992 (BRI).

Distribution and habitat: Occurs in north-eastern Queensland near Bowen (Fig. 9). Grows on rainforest margins at altitudes between 900 and 1100 m.

Notes: Similar to *G. liratum* in having spathulate leaves that lack glandular cells. All collections of this species were made within a few days of each other and further collections are desirable to better characterise it. Only one of the three collections has flowering material and information from this is limited. It is unclear whether the corolla is bright white as in species of *Asperula* or more a dull cream as in *G. liratum*. The cyme architecture is unusual in consisting of a long primary peduncle with the remainder rather complexly branched with short peduncles, reminiscent of the branching pattern in *Asperula* sect. *Dioicae*. The scaly appearance of the mericarps is also distinctive for Australian *Galium*.

Etymology: The epithet refers to the shape of the leaves (from L: *spathulatus*, spatula-shaped).

3. *Galium australe* DC., *Prodr.* 4: 608 (1830)

Type: **VICTORIA**. Western Port, Bass Strait, *A.Lesson*, 1829; holo: G *n.v.*, *fide* D.J.McGillivray, *Telopea* 2: 360 (1983).

G. squalidum Hook.f, *in* W.J.Hooker, *London J. Bot.* 6: 462 bis (1847); *G. australe* var. *piloso-hispidum* Benth., *Fl. Austral.* 3: 447 (1867). Type: New Norfolk, *R.C.Gunn 1129*, 6 Nov. 1840; lecto: K, *fide* D.J.McGillivray *loc. cit.*, image seen MEL; iso: HO, NSW. Remaining syntypes: Glen Leith, *R.C.Gunn s.n.*, 14 Sept. 1840; syn: K; Lawrenny, *R.C.Gunn 1009*, Oct. 1840; syn: K.

Herbs, sparsely to somewhat densely indumented, with slender to somewhat coarse hairs to c. 0.5 mm long or scabrosities; rhizomes not seen. *Stems* to c. 1 mm diam., with angles slender to somewhat

broadened, with hairs and scabrosities spreading to retrorse; whorls 4-partite, with stipules mostly 2/3 or more of leaf length below inflorescences, decreasing upwards to be finally < 1/2 of leaf length or occasionally not developed. *Leaves* oblong-elliptic, elliptic, narrow-elliptic or narrow-ovate, 2–12 mm long, 1.5–5 mm wide, with l:w ratio mostly 2–6, with petiole-like portion 0.5–1.5 mm long; margin usually recurved or revolute, sometimes strongly so; apex acute, sometimes with a terminal hair; adaxial surface with midrib variably distinct; abaxial surface with midrib only conspicuous proximally, distal glandular cell patch small to moderate, proximal glandular cells variably present, sometimes conspicuous. *Inflorescences* mostly extended, rarely soon terminating; cymes 2–10-flowered, often 3-flowered, commonly exceeding whorls when mature; primary peduncle to 20 mm long, often hairy; intermediate and ultimate peduncles 0.5–5 mm long, with insertion position variable, glabrous or hairy; bracts c. equal to or more often shorter than peduncle, developed at most nodes. *Flowers*: corolla 1.5–3 mm diam., with lobes 0.7–1.3 mm long, not apiculate, cream or greenish-cream, occasionally tinged purplish-red abaxially, glabrous; ovary circular to slightly oblate in face view, c. 0.5 mm long, covered with antrorse-appressed, but later spreading, robust hairs 0.3–0.5 mm long, hooked, sometimes pigmented orangish to brown throughout or distally. *Fruit*: fruit-set percentage generally high; developing fruit dull, more or less smooth between hairs; mature peduncles stout, straight, mericarps reniform, 1.0–1.3 mm long, c. 0.8 mm wide, dark brown, reticulately rugose; hairs weakly tubercle-based; dissepiment scar c. 0.5 mm long.

Flowers spring–summer.

Selected specimens: **SOUTH AUSTRALIA**. Near Pink Bay, Kangaroo Island, *coll. unknown*, ?1847 (MEL); Limestone cliffs near Dry Creek, Glenelg river, *R.J.Bates 41837*, 3.i.1996 (AD); Honans Scrub, *R.J.Bates 26322*, 23.xi.1991 (AD). **NEW SOUTH WALES**. Nowra-Yalwal Rd, c. 11 km W of Nowra, *D.F.Blaxell 1350*, 21.iv.1974 (NSW); Mt Dromedary, *E.Reader*, Nov. 1894 (MEL); W side, Lake Windemere, ANBG annexe, *G.Singh & E.A.Geissler*, 24.iii.1981 (CANB). **VICTORIA**. Point Addis Coastal Reserve, c. 6 km ENE of Anglesea PO, *A.C.Beauglehole 63495*, 19.i.1979 (MEL, NSW); Queenscliff, *A.J.Tadgell*, Oct. 1904 (MEL); Sorrento Ocean Beach, *I.R.Thompson 1038*, 2.i.2008 (MEL); Shallow Inlet, NW of Wilsons Promontory, *P.C.Heyligers 93023*, 16.xi.1993 (CANB, MEL); Wilsons Promontory, *E.Chesterfield 2134*, 11.i.1989 (MEL); Wingan Inlet, *J.H.Willis & N.A.Wakefield*, 30.xii.1951 (MEL); Dunes, Betka River, *N.A.Wakefield 4802*, 31.xii.1952 (MEL). **TASMANIA**. Mt Killiekrankie, Flinders Island, *S.Harris 236*, Sept. 1980 (HO); South Patriarch Trig, Flinders Island, c. 20 km NE of Whitemark, *I.Crawford 1111*, 8.xii.1988 (BRI, HO, MEL); Hogans Island, Furneaux group, *J.S.Whinray 9317*, s.d. (AD, CANB, HO, MEL, NSW); Low Head, *W.M.Curtis*, 7.xii.1955 (HO); Deal Island, Kent Group. *J.S.Whinray 276*, 29.xii.1968 (HO); Croppies Point, *A.M.Buchanan 1649*, 22.xi.1983 (HO); Swansea, *A.Simson 2166*, Oct. 1881 (HO); Ouse River near Remarkable Rock, c. 8 km NE of Lake Echo, *A.M.Gray 521*, 14.xii.1980 (HO); Wilson Bight, *A.M.Buchanan 9472*, 14.i.1987 (HO); Fluted Cape, South Bruny Island, *A.M.Buchanan 8370* (HO); near Derwent River, *R.Brown*, 1804 (CANB).

Distribution and habitat: Occurs in southern New South Wales, southern Victoria, far south-eastern South Australia, and Tasmania (Fig. 9). Grows mostly on or near coasts, often in sandy soils, in shrubland and forest.

Notes: *Galium australe*, like *G. albescens* and *G. densum*, has hooked spreading hairs on ovary and fruit; they are shorter in *G. australe*. Also, compared to *G. densum*, *G. australe* has a less marked size difference between leaves and stipules, often firmer leaves with evenly revolute margins, extended inflorescences, and cymes with shorter and always straight peduncles. *Galium australe* has smaller flowers and fruit than *G. albescens* and the stem and leaf indumentum is not as dense and hairs not as long. Uncommonly for Australian *Galium*, in more complex cymes a third peduncle sometimes arises from the primary peduncle. This pattern is more typical of species in *Asperula* sect. *Dioicae*.

Specimens from Deal Island in Bass Strait, Tasmania (*J.S.Whinray 276* HO and *D.A.Reynolds 97* HO) are atypical in having inflorescences terminating after only 2 or 3 nodes.

Hybrids: The following collections appear to be hybrids: **1.** Clyde River, south-eastern Tasmania (*P.Collier 1649* HO): *G. australe* × *G. densum*. **2.** Hogan Island, Bass Strait (*N.P.Brothers 191 & 251* HO) and St Margaret Island, Victoria (*A.C.Beauglehole 62333* MEL): *G. australe* × *G. gaudichaudii*. **3.** Lower Glenelg River, far south-western Victoria and far south-eastern South Australia (e.g. *R.J.Bates 41316* AD): *G. australe* × *G. compactum*.

4. *Galium albescens* Hook.f., in W.J.Hooker, *London J. Bot.* 6: 462 bis (1847).

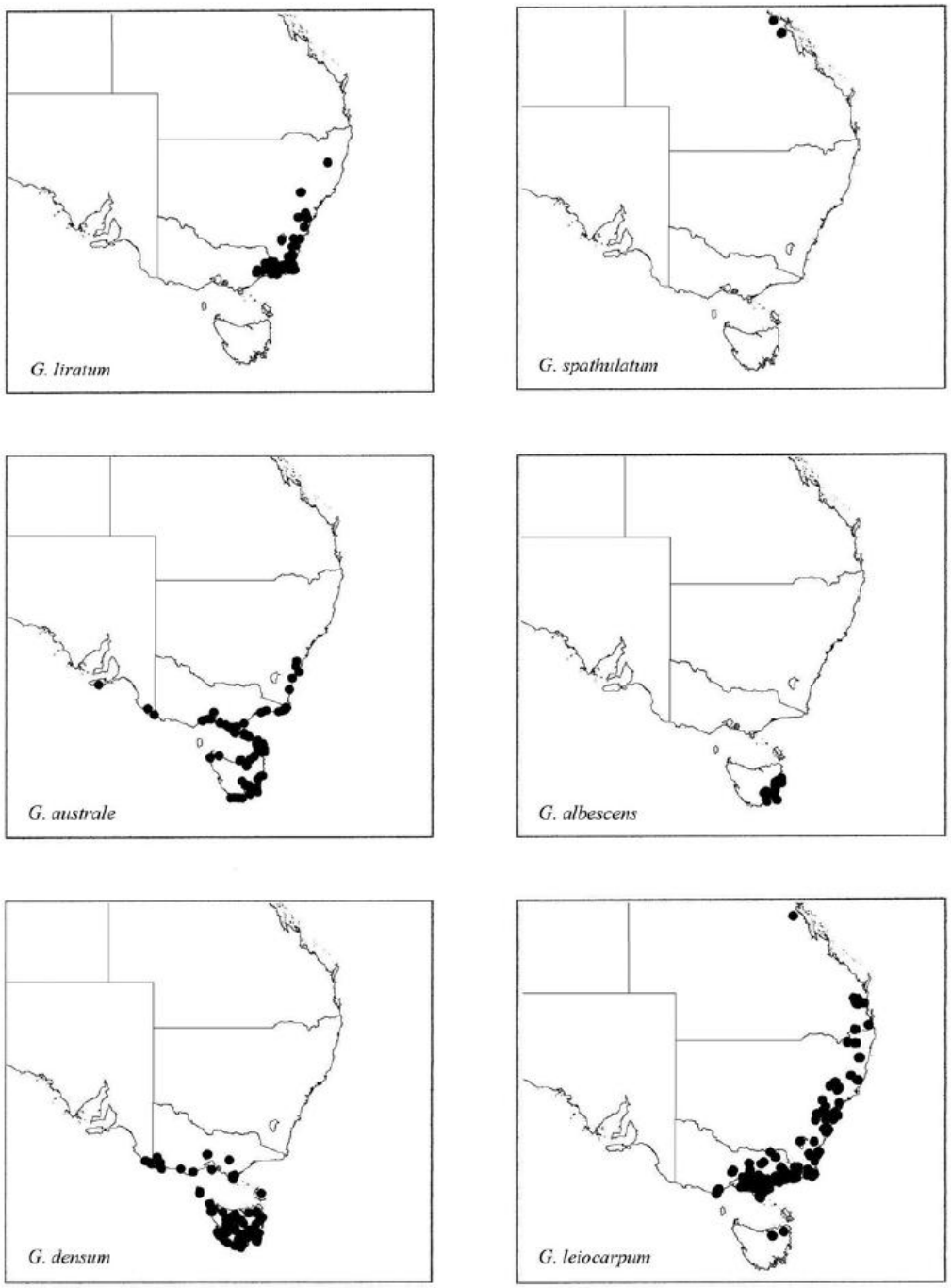


Figure 9. Distributions of *Galium liratum*, *G. spathulatum*, *G. australe*, *G. albescens*, *G. densum*, *G. leiocarpum*.

Asperula perpusilla Hook.f. is very similar to Australian *Asperula*. Several workers, e.g. Mueller (1875) and Airy Shaw and Turrell (1928) have also suggested over the years, quite reasonably in the view of the author, that Australian species of *Asperula* are perhaps closer to *Galium* than to *Asperula sensu stricto*. Airy Shaw and Turrell considered that Australian *Asperula* were at least worthy of separation from European *Asperula* and erected *Asperula* sect. *Dioicae* Airy Shaw & Turrill to accommodate them.

Australian taxonomic history

The taxonomic history of *Asperula* has been relatively straightforward. The earliest descriptions came from Joseph Hooker (1847) who described six species based on Tasmanian material: *Asperula subsimplex* Hook.f., *A. gunnii* Hook.f., *A. scoparia* Hook.f., *A. conferta* Hook.f., *A. pusilla* Hook.f., and *A. minima* Hook.f. Soon after, Mueller described *A. geminifolia* F.Muell. and *Galium geminifolium* F.Muell. (now *A. gemella* Airy Shaw & Turrill), while Miquel described *Rubia syrticola* Miq. (now *A. syrticola* (Miq.) Toelken). Bentham (1867), in *Flora Australiensis*, reduced *A. pusilla* to a variety of *A. gunnii*, described *A. conferta* var. *elongata*, and synonymised *R. syrticola* under *A. scoparia*. In 1875, Mueller proposed a remarkably conservative classification that incorporated all Australian forms with the exception of *A. geminifolia* under the one name, the illegitimate *Asperula oligantha* F.Muell.

In 1928 Airy Shaw and Turrill produced the first detailed revision of the genus and reversed Mueller's conservative approach. As well as resurrecting all of Hooker's species, they described seven new species: *A. ambleia* Airy Shaw & Turrill, *A. asthenes* Airy Shaw & Turrill, *A. cunninghamii* Airy Shaw & Turrill, *A. euryphylla* Airy Shaw & Turrill, *A. subulifolia* Airy Shaw & Turrill, *A. wimmerana* Airy Shaw & Turrill, and *A. lissocarpa* Airy Shaw & Turrill. In addition, *Galium geminifolium* was renamed as *A. gemella* and *A. conferta* var. *elongata* was elevated to species rank as *A. charophyton*. Eight infraspecific taxa were also described; however, with the exception of *A. euryphylla* var. *tetraphylla*, these names were not subsequently utilised by Australian workers. *Asperula lissocarpa* proved to be the same taxon as *Rubia syrticola* Miq., and was renamed in 1986 as *A. syrticola* (Miq.) Toelken.

The taxonomic history of *Galium* has been more complex. The first Australian species described were *G. gaudichaudii* DC. and *G. australe* DC. by Augustin de Candolle in 1840. Joseph Hooker contributed six species in 1847 based on Tasmanian material: *G. vagans* Hook.f., *G. ciliare* Hook.f., *G. densum* Hook.f., *G. squalidum* Hook.f., *G. albescens* Hook.f., and *G. curtum* Hook.f. In contrast to the species of *Asperula* he described in the same journal, all of which are now accepted, only one species of *Galium*, *G. ciliare*, became adopted through the 20th century and even it was sunk into synonymy for a period. *Galium curtum* and Mueller's *G. geminifolium* were transferred to *Asperula*. In the 1850s Miquel described *G. erythrorrhizum* F.Muell. ex Miq. and *G. axiflorum* F.Muell. ex Miq. Bentham (1867) in *Flora Australiensis* recognised five species, described two new varieties, *G. gaudichaudii* var. *glabrescens* Benth. and *G. gaudichaudii* var. *muriculatum* Benth., and reduced *G. squalidum* to varietal rank as *G. australe* var. *piloso-hispidum* Benth.

Mueller (1875), as he did for *Asperula*, proposed a highly conservative classification, and included all Australian native forms under the one name *G. umbrosum* G.Forst. ex Hook.f., a species described from New Zealand and illegitimately named. Although Mueller's classification was largely followed in subsequent years, *G. australe* was generally maintained as distinct, while Ewart (1931) maintained *G. gaudichaudii*. The next significant publication was by Wakefield (1955) who described two new species, *G. binifolium* N.A.Wakef. and *G. liratum* N.A.Wakef. Also in this paper, which was essentially based on Victorian material, the name *G. propinquum* A.Cunn. was introduced into Australian taxonomic literature to replace the illegitimate *G. umbrosum*. *Galium ciliare* was treated as a synonym of *G. propinquum* by Wakefield. The introduced species *G. divaricatum* Lam. enjoyed a period of recognition as a native taxon under the name *G. parisiense* var. *australe* Ewart & Jean White. In her treatment of Tasmania's Flora, Curtis (1966) resurrected *G. albescens*.

The first detailed revision of Australian *Galium* was undertaken by McGillivray in 1983, in which 11 species were recognised. The four new species were *G. terrae-reginae* Ehrend. & McGill., *G. compactum* Ehrend. &

APPENDIX 21- HABITAT ASSESSMENT GRID RAW DATA FOREST (FAUNA SURVEYS PTY LTD, 2011)

			Tree Size Class (cm) (30m radius)			Habitat Trees	Glider Food Trees <30m radius			Glider Food Plants <30m radius			Glossy Black		Parma Wallaby	Koala Food				
Grid	Easting GDA94	Northing GDA94	0 – 30 cm	30 – 60 cm	> 60 cm	<50m radius	Bloodwood	E. robusta	Acacia	B. spinulosa	B. oblongifolia	Xanthorrhoea	Allocasuarina	Fire	Grasses	E. robusta	E. microcorys	E. punctata	Brushbox	E. saligna
1	427549.23	6416253.11	>30	11	0	2	0	0	0	0	0	0	0	M	L	0	0	0	0	0
2	427563.33	6416345.89	>30	10	2	3	0	0	0	L	H	H	H	L	L	0	0	0	0	0
3	427648.92	6416254.71	>30	1	0	0	0	0	0	0	0	0	0	M	L	0	0	0	0	0
4	427648.32	6416155.28	>30	6	1	1	0	0	0	0	0	0	0	M	L	0	0	0	0	0
5	427550.81	6416150.80	>30	4	0	0	0	0	0	0	0	0	0	M	L	0	0	0	0	0
6	427546.47	6416048.44	>30	10	7	9	0	0	0	0	0	0	L	L	L	0	0	0	0	0
7	427553.26	6415954.37	>30	20	1	1	0	0	0	M	0	0	L	L	L	0	0	0	0	0
8	427552.63	6415857.93	>30	30	4	7	0	0	0	0	0	0	0	L	L	0	0	0	0	0
9	427551.98	6415752.72	>30	8	6	4	0	0	0	L	0	0	L	L	L	0	0	0	0	0
10	427552.14	6415652.61	>30	4	8	4	0	0	0	0	0	0	M	L	L	0	0	0	0	0
11	427451.70	6415651.00	>30	11	2	4	0	0	0	H	H	L	M	H	L	0	0	0	0	0
12	427553.73	6415549.52	>30	6	0	5	0	0	0	0	0	0	0	L	L	0	0	0	0	0
13	427447.36	6415548.64	>30	7	7	1	0	0	0	H	L	0	6	H	L	0	0	0	0	0
14	427347.67	6415547.81	>30	12	2	9	0	0	0	H	H	0	>30	H	L	0	0	0	0	0
15	427550.78	6415450.17	>30	12	5	5	0	0	0	M	0	0	25	M	L	0	0	0	0	0
16	427453.34	6415449.36	>30	30	4	7	0	0	0	0	0	0	0	M	L	0	0	0	0	0
17	427350.73	6415448.51	>30	20	7	7	0	0	0	H	H	0	M	H	L	0	0	0	0	0
18	427252.55	6415446.14	>30	30	9	3	0	0	0	L	L	L	L	H	L	0	0	0	0	0
19	427251.91	6415353.45	>30	3	5	6	0	0	0	H	H	L	3	H	L	0	0	0	0	0
20	427354.54	6415351.42	>30	4	4	4	0	0	0	M	H	0	8	H	L	0	0	0	0	0
21	427454.25	6415349.25	>30	10	2	4	0	0	0	0	0	0	0	H	L	0	0	0	0	0
22	427454.35	6415256.57	>30	14	5	4	0	0	0	0	0	0	0	H	L	0	0	0	0	0

Grid	Easting GDA94	Northing GDA94	Tree Size Class (cm) (30m radius)			Habitat Trees	Glider Food Trees <30m radius			Glider Food Plants <30m radius			Glossy Black	Fire	Parma Wallaby	Koala Food				
			0 – 30 cm	30 – 60 cm	> 60 cm	<50m radius	Bloodwood	E. robusta	Acacia	B. spinulosa	B. oblongifolia	Xanthorrhoea	Allocasuarina		Grasses	E. robusta	E. microcorys	E. punctata	Brushbox	E. saligna
23	427353.92	6415253.53	>30	20	6	4	0	0	0	H	0	0	0	H	L	0	0	0	0	0
24	427253.50	6415250.47	>30	10	6	3	0	0	0	0	L	H	5	H	L	0	0	0	0	0
25	427156.08	6415247.33	>30	2	0	0	0	0	0	0	0	L	0	H	L	0	0	0	0	0
26	427053.38	6415247.25	>30	1	5	1	0	0	0	0	0	0	0	L	L	0	0	0	0	0
27	426952.99	6415250.85	>30	22	3	2	0	0	0	0	0	0	0	H	L	0	0	0	0	0
28	427448.43	6415152.78	>30	16	6	6	2	0	4	0	0	L	0	H	L	0	0	0	0	0
29	427351.75	6415151.19	>30	21	6	10	10	0	0	H	0	0	0	H	L	0	0	0	0	0
30	427253.56	6415150.36	>30	20	10	11	3	0	5	10	0	H	3	H	L	0	0	0	0	0
31	427156.93	6415156.21	0	0	2	0	0	0	0	0	0	0	0	L	L	0	0	0	0	0
32	427052.00	6415151.57	0	2	2	1	0	0	0	0	0	0	0	H	L	0	0	0	0	0
33	427448.55	6415044.57	>30	10	1	0	0	0	0	M	L	0	0	H	L	0	0	0	0	0
34	427348.18	6415046.62	>30	12	1	0	0	0	0	H	H	L	L	H	L	0	0	0	0	0
35	427248.49	6415046.45	>30	2	0	0	0	0	0	0	0	0	0	L	L	0	0	0	0	0
36	427151.04	6415048.63	>30	3	0	0	0	0	0	0	0	0	0	H	L	0	0	0	0	0
37	427053.57	6415052.25	24	7	1	0	0	0	0	0	0	0	0	H	L	0	M	0	0	0
38	426956.14	6415050.65	21	10	0	2	0	0	0	0	0	1	4	H	L	0	M	0	0	0
39	426854.26	6415054.24	0	15	1	0	0	0	0	0	0	0	0	H	L	0	M	0	0	0
40	426753.82	6415052.62	4	10	1	0	0	0	0	0	0	0	4	M	L	0	M	0	0	0
41	426753.15	6414950.29	>30	>30	1	0	1	0	0	0	0	0	>30	H	L	0	H	H	0	0
42	426849.11	6414946.66	>30	>30	0	0	0	0	0	0	0	0	>30	H	L	0	2	0	0	0
43	426960.00	6414946.91	>30	18	2	1	0	0	0	0	0	13	H	H	L	0	1	0	0	0
44	427048.51	6414946.23	>30	6	1	1	0	0	0	0	0	0	L	H	L	0	0	0	0	0
45	427262.73	6414949.55	>30	2	0	0	0	0	0	0	0	0	L	L	L	0	0	0	0	0
46	427352.72	6414951.75	>30	11	2	1	0	0	0	10	10	H	H - <2m	H	L	0	0	0	0	0

Grid	Easting GDA94	Northing GDA94	Tree Size Class (cm) (30m radius)			Habitat Trees	Glider Food Trees <30m radius			Glider Food Plants <30m radius			Glossy Black	Fire	Parma Wallaby	Koala Food				
			0 – 30 cm	30 – 60 cm	> 60 cm	<50m radius	Bloodwood	E. robusta	Acacia	B. spinulosa	B. oblongifolia	Xanthorrhoea	Allocasuarina		Grasses	E. robusta	E. microcorys	E. punctata	Brushbox	E. saligna
47	427447.92	6414950.34	>30	6	0	0	0	0	0	>30	L	0	H - <2m	H	L	0	0	0	0	0
48	427453.22	6414852.60	>30	4	5	5	0	0	0	>30	L	H	0	H	L	0	0	0	0	0
49	427351.32	6414847.21	>30	6	0	2	0	0	0	L	L	H	H - <2m	H	L	0	0	0	0	0
50	427253.14	6414844.95	>30	2	0	0	0	0	0	0	0	0	L	L	L	0	0	0	0	0
51	427046.37	6414851.21	>30	7	3	0	0	0	0	0	0	0	H	H	L	0	0	0	0	0
52	426950.37	6414847.52	>30	16	1	1	0	0	0	0	0	L	H	H	L	0	1	3	0	0
53	426854.44	6414847.37	15	13	0	0	0	0	0	0	0	0	H	L	L	0	5	0	0	0
54	426751.08	6414847.96	>30	6	7	0	0	0	0	0	0	0	H	H	L	0	0	10	10	0
55	426749.72	6414750.16	>30	8	0	0	0	0	0	0	0	0	H	H	L	0	0	5	10	0
56	426853.09	6414748.81	>30	24	5	0	0	0	0	0	0	0	H	H	L	0	1	0	0	0
57	426950.52	6414749.63	12	2	7	1	0	0	0	0	0	0	H	H	L	0	1	0	0	0
58	427053.15	6414747.49	>30	2	0	0	0	0	0	0	0	0	H	H	L	0	2	0	0	0
59	427149.15	6414751.29	>30	6	4	0	0	0	0	0	0	H	H	H	L	0	0	0	0	0
60	427253.28	6414748.50	>30	12	2	2	0	>30	0	0	0	0	0	M	L	>30	0	0	0	0
61	427349.20	6414750.08	>30	10	2	2	0	2	0	L	0	L	0	H	L	2	0	0	0	0
62	427450.32	6414746.48	>30	6	3	3	0	10	0	0	0	0	0	H	L	10	0	0	0	0
63	427451.95	6414651.60	>30	7	0	2	0	>30	0	0	0	0	0	H	L	>30	0	0	0	0
64	427350.76	6414650.76	>30	2	0	2	0	>30	0	0	0	0	0	H	L	>30	0	0	0	0
65	427246.70	6414643.13	>30	5	0	2	0	0	0	H	0	0	L	H	L	0	3	0	0	0
66	427155.93	6414645.36	>30	6	1	0	0	0	0	L	0	0	M	H	L	0	0	0	0	0
67	427053.31	6414646.72	>30	16	1	2	1	0	0	0	0	0	H	H	L	0	3	0	0	0
68	426952.89	6414643.67	>30	6	2	0	0	0	0	0	0	0	H	H	L	0	4	0	0	0
69	426853.93	6414646.49	>30	15	2	0	0	0	0	0	0	0	H	H	L	0	1	0	0	0
70	426751.24	6414644.08	>30	6	0	0	0	0	0	0	0	0	H	H	L	0	0	2	0	0

Grid	Easting GDA94	Northing GDA94	Tree Size Class (cm) (30m radius)			Habitat Trees	Glider Food Trees <30m radius			Glider Food Plants <30m radius			Glossy Black	Fire	Parma Wallaby	Koala Food				
			0 – 30 cm	30 – 60 cm	> 60 cm	<50m radius	Bloodwood	E. robusta	Acacia	B. spinulosa	B. oblongifolia	Xanthorrhoea	Allocasuarina		Grasses	E. robusta	E. microcorys	E. punctata	Brushbox	E. saligna
71	427443.85	6414548.56	>30	12	4	4	0	20	0	12	0	M	H	H	H	20	0	0	0	0
72	427353.16	6414552.88	>30	3	0	0	0	0	0	10	0	L	M	H	M	0	0	0	0	0
73	427251.26	6414546.05	>30	2	0	0	0	0	0	0	0	0	L	L	L	0	0	0	0	0
74	427153.82	6414547.46	>30	12	0	0	0	10	0	0	0	L	L	H	L	10	0	0	0	0
75	427058.62	6414551.09	>30	12	2	2	0	0	0	0	0	0	H	H	L	0	3	0	0	0
76	426958.19	6414548.03	>30	16	3	1	0	0	0	0	0	0	H	H	L	0	6	0	0	0
78	426957.49	6414450.14	>30	20	0	0	0	0	0	0	0	L	H	H	L	0	6	0	0	0
79	427049.02	6414447.25	>30	20	2	1	0	0	0	0	0	0	H	H	L	0	0	0	0	0
80	427150.94	6414451.09	>30	6	2	0	0	0	>30	0	0	H	H	L	L	0	0	0	0	0
81	427252.80	6414450.50	>30	1	0	0	0	0	0	0	0	0	M	L	H	0	0	0	0	0
82	427354.74	6414451.35	>30	2	0	0	0	0	0	0	0	0	L	H	L	0	0	0	0	0
83	427452.18	6414450.73	>30	4	5	2	0	6	0	L	0	H	H	H	L	6	0	0	0	0
84	427446.32	6414363.22	>30	4	5	2	1	0	0	H	0	H	H	H	L	0	0	0	0	0
85	427356.30	6414353.48	>30	7	1	1	0	0	0	0	0	0	H	L	H	0	0	0	0	0
86	427252.22	6414349.61	>30	9	1	0	0	0	0	0	0	0	L	L	H	0	0	0	0	0
87	427145.78	6414345.74	>30	5	0	0	0	0	0	0	0	0	H	H	H	0	0	0	0	0
88	427055.77	6414347.19	>30	17	4	0	0	0	0	0	0	0	H	H	L	0	1	0	0	4
89	426971.02	6414348.69	21	13	2	0	0	0	0	0	0	0	H	H	L	0	3	0	0	9
90	427048.50	6414247.81	6	13	5	0	0	0	0	0	0	0	H	H	L	0	3	0	0	0
91	427147.40	6414253.08	>30	2	0	0	0	0	0	0	0	0	H	H	L	0	0	0	0	0
92	427256.03	6414250.32	>30	5	2	0	0	0	0	0	0	0	H	L	L	0	0	0	0	0
93	427353.45	6414251.90	>30	3	0	0	0	0	0	0	0	H	H	L	H	0	1	0	0	0
94	427448.63	6414252.04	>30	4	3	2	1	0	0	0	0	H		H	L	0	0	0	0	0
95	427450.97	6414149.73	>30	18	4	4	2	0	0	0	0	L	H	H	L	0	2	0	0	0

Grid	Easting GDA94	Northing GDA94	Tree Size Class (cm) (30m radius)			Habitat Trees	Glider Food Trees <30m radius			Glider Food Plants <30m radius			Glossy Black	Fire	Parma Wallaby	Koala Food				
			0 – 30 cm	30 – 60 cm	> 60 cm	<50m radius	Bloodwood	E. robusta	Acacia	B. spinulosa	B. oblongifolia	Xanthorrhoea	Allocasuarina		Grasses	E. robusta	E. microcorys	E. punctata	Brushbox	E. saligna
96	427351.28	6414148.12	>30	11	8	0	0	0	0	0	0	M	H	H	L	0	10	0	0	0
97	427249.39	6414142.07	>30	5	2	0	0	0	0	0	0	L	H	L	H	0	2	0	0	0
98	427141.58	6414146.28	>30	2	1	0	0	0	0	0	0	L	H	L	H	0	1	0	0	0
99	427447.38	6414046.60	>30	15	2	2	0	0	0	0	0	H	H	H	L	0	8	0	0	0
100	427350.69	6414048.01	>30	3	0	1	0	0	0	0	0	0	M	H	H	0	16	0	0	0
101	427247.99	6414048.60	20	6	7	3	0	0	3	0	0	0	H	L	H	0	0	0	0	4
102	427152.05	6414050.79	20	4	2	2	0	0	0	0	0	0	H	L	H	0	0	0	0	1
103	427150.65	6413946.24	>30	3	2	0	0	0	0	0	0	0	H	M	H	0	4	0	0	0
104	427249.56	6413950.06	>30	12	5	0	0	0	0	0	0	0	M	M	H	0	12	0	0	0
105	427352.99	6413951.70	>30	30	6	0	0	0	0	0	0	L	H	M	M	0	7	0	0	0
106	427451.17	6413952.51	>30	22	3	1	0	0	0	0	0	H	H	M	H	0	2	0	0	0
107	427351.57	6413849.36	>30	13	2	1	0	0	0	0	0	M	H	M	H	0	16	0	0	0
108	427248.95	6413839.52	24	5	4	0	0	0	0	0	0	0	H	M	H	0	0	0	1	0
109	427150.01	6413840.25	18	4	1	0	0	0	0	0	0	0	H	M	H	0	0	0	0	0
110	427142.70	6413745.97	10	4	4	1	0	0	0	0	0	3	15	L	H	0	2	0	1	0
111	427249.09	6413754.28	>30	7	4	0	0	0	0	0	0	0	H	M	H	0	11	0	0	0
112	427357.64	6413751.51	>30	10	4	0	0	0	0	0	0	M	H	M	H	0	7	4	0	0
113	427354.00	6413655.82	>30	24	2	4	0	0	0	0	0	0	H	M	H	0	12	4	0	0
114	427252.16	6413654.20	>30	9	3	1	0	0	0	0	0	0	H	M	H	0	4	0	0	0
115	427146.47	6413652.54	10	6	10	0	0	0	0	0	0	13	12	M	H	0	16	0	0	0

APPENDIX 22- HABITAT TREE MAPPING RAW DATA FOREST (FAUNA SURVEYS PTY LTD, 2011)

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT001	Eucalyptus piperita	427562.00	6416362.50	10	110	18	0	4	0	0	4	4	0	0	0	4	
HT002	Eucalyptus piperita	427562.53	6416363.63	30	60	10	0	1	0	1	0	0	0	0	0	1	
HT003	Eucalyptus piperita	427554.39	6416360.28	50	50	10	0	0	1 small	1	0	0	0	0	0	1	
HT004	Eucalyptus piperita	427590.36	6416369.27	30	90	16	0	1	0	1	0	0	0	0	0	1	
HT005	Eucalyptus piperita	427582.95	6416350.19	20	140	18	0	2	small fissures	2	1	0	0	0	0	3	
HT006	Angophora costata	427630.52	6416369.55	20	100	18	4	0	0	3	0	0	1	0	0	4	
HT007	Angophora costata	427642.38	6416345.51	20	90	18	0	0	1 small v.pipe	1	0	0	0	0	1	1	
HT008	Dead Stag	427646.98	6416318.96	100	50	8	0	0	small fissures	0	1	0	0	0	0	1	
HT009	Dead Stag	427533.54	6416304.47	100	60	8	0	2	small fissures	1	1	0	0	0	1	2	
HT010	Eucalyptus resinifera	427549.81	6416225.65	90	70	12	0	1	0	0	0	0	1	0	1	1	
HT011	Dead Stag	427645.18	6416145.05	100	90	12	1	1	1	1	1	1	0	0	1	3	
HT012	Eucalyptus resinifera	427627.22	6416098.52	40	70	14	0	4	0	1	4	4	0	0	0	4	
HT013	Dead Stag	427586.31	6416113.79	100	90	15	1	2	0	1	2	0	0	0	0	3	
HT014	Eucalyptus resinifera	427523.90	6416083.49	80	70	12	0	0	1 large v.pipe	0	0	0	1	0	1	1	
HT015	Eucalyptus resinifera	427523.91	6416063.60	50	90	15	0	1	0	1	0	0	0	0	0	1	
HT016	Eucalyptus resinifera	427518.12	6416055.25	50	95	19	0	2	1 large v.pipe	2	0	0	1	0	0	3	large hollow at base of tree
HT017	Eucalyptus resinifera	427548.01	6416039.28	30	90	18	1	4	0	2	1	1	0	0	0	5	
HT018	Eucalyptus resinifera	427550.00	6416038.00	30	60	10	0	0	1	1	0	0	0	0	1	1	
HT019	Eucalyptus resinifera	427561.22	6416034.39	40	90	18	2	1	fissures	2	1	1	0	0	1	4	
HT020	Eucalyptus resinifera	427538.55	6416028.54	40	100	20	0	0	1 large v.pipe	1	1	0	0	0	0	2	
HT021	Eucalyptus resinifera	427531.76	6416028.85	50	90	20	0	3	0	3	0	0	0	0	0	3	
HT022	Eucalyptus resinifera	427517.85	6416030.66	40	70	16	1	1	1	2	0	1	0	0	0	3	

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT023	Eucalyptus resinifera	427515.28	6416031.34	50	90	20	2	0	0	2	1	1	0	0	0	2	
HT024	Eucalyptus resinifera	427511.14	6416022.73	60	90	18	3	4	0	3	4	4	0	0	0	7	
HT025	Eucalyptus resinifera	427538.36	6415945.51	80	80	20	0	1	0	0	1	0	0	0	0	1	
HT026	Eucalyptus resinifera	427587.57	6415920.55	40	90	20	3	3	0	5	0	1	0	0	0	6	
HT027	Eucalyptus resinifera	427602.88	6415936.72	30	90	18	1	4	1	2	0	3	0	0	0	5	
HT028	Eucalyptus resinifera	427603.51	6415871.00	20	80	20	0	2	0	0	1	1	0	0	0	2	
HT029	Angophora costata	427572.53	6415885.00	30	100	20	1	0	1 small v.pipe	2	0	0	0	0	0	2	
HT030	Eucalyptus resinifera	427595.03	6415880.86	10	80	20	0	2	0	0	0	2	0	0	0	2	
HT031	Dead Stag	427623.70	6415893.19	100	95	20	3	5	fissures	3	1	4	0	0	0	8	
HT032	Eucalyptus resinifera	427638.21	6415896.40	40	96	20	2	1	1 large v.pipe	2	1	0	1	0	0	4	
HT033	Dead Stag	427563.32	6415832.38	100	90	20	2	10	0	2	1	10	0	0	0	12	
HT034	Eucalyptus acmenoides	427551.89	6415827.27	60	60	15	0	2	0	0	1	1	0	0	0	2	
HT035	Angophora costata	427537.36	6415760.10	20	96	20	1	0	0	0	0	0	0	1	0	1	
HT036	Angophora costata	427520.16	6415749.89	10	90	20	0	1	0	1	0	0	0	0	0	1	
HT037	Dead Stag	427510.32	6415747.09	100	60	10	0	3	0	0	2	1	0	0	0	3	
HT038	Dead Stag	427546.78	6415730.57	50	100	20	1	5	1 large v.pipe + fissures	1	5	5	0	0	0	7	
HT039	Dead Stag	427374.52	6413717.33	100	66	15	0	0	1 small	1	0	0	0	0	0	1	
HT040	Dead Stag	427404.70	6413613.96	100	133	22	2	10	0	2	10	10	0	0	0	12	
HT041	Dead Stag	427390.60	6413604.02	100	60	14	0	0	bark fissures	0	fissures	0	0	0	0	fissures	
HT042	Dead Stag	427368.14	6413630.77	100	199	33	7	12	2	7	12	12	2	+	0	21	
HT043	Dead Stag	427275.33	6413597.36	100	160	25	2	8	2	4	8	8	0	0	0	12	
HT044	Eucalyptus pilularis	427203.32	6413727.10	10	70	25	0	0	fissures	0	fissures	fissures	0	0	0	fissures	
HT045	Dead Stag	427434.08	6413833.41	100	116	25	4	10	0	4	10	10	0	0	0	14	
HT046	Eucalyptus microcorys	427276.10	6413883.54	10	66	25	0	0	1 small fissure	0	1	1	0	0	0	1	
HT047	Dead Stag	427199.00	6413861.00	100	80	25	0	3	0	0	3	3	0	0	0	3	

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT048	Eucalyptus saligna	427184.98	6413888.75	10	70	22	0	0	1 small	1	0	0	0	0	1	1	
HT049	Eucalyptus piperita	427418.23	6413955.73	30	109	22	2	2	0	2	2	2	0	0	0	4	
HT050	Dead Stag	427308.94	6414004.01	100	80	8	0	0	1 small v.pipe	1	0	0	0	0	1	1	
HT051	Dead Stag	427261.02	6414028.34	100	113	18	1	2	1 small v.pipe	1	2	2	0	0	1	3	
HT052	Dead Stag	427206.80	6414014.20	100	203	26	2	8	1 v.large v.pipe + 1 small	2	8	8	1	0	1	12	
HT053	Eucalyptus piperita	427263.05	6414064.34	20	124	25	2	0	0	2	0	0	0	0	0	2	
HT054	Dead Stag	427313.95	6414049.94	100	65	20	0	4	0	0	4	4	0	0	0	4	
HT055	Dead Stag	427312.64	6414096.30	100	130	22	0	12	0	0	12	12	0	0	0	12	
HT056	Dead Stag	427362.56	6414138.01	100	135	20	3	0	1 v.large v.pipe	3	0	0	1	0	1	4	
HT057	Dead Stag	427393.45	6414167.29	100	160	15	0	0	1 v.large v.pipe	0	0	0	1	0	0	1	very good Masked Owl tree
HT058	Dead Stag	427443.49	6414156.69	100	80	12	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT059	Dead Stag	427450.05	6414165.91	100	60	16	0	3	0	0	3	3	0	0	0	3	
HT060	Eucalyptus piperita	427459.56	6414264.92	10	95	20	0	2	0	0	2	0	0	0	0	2	
HT061	Dead Stag	427481.75	6414261.12	100	98	20	1	2	2	2	4	4	0	0	0	5	
HT062	Dead Stag	427473.37	6414261.96	100	137	20	6	0	0	6	0	0	0	0	6	6	
HT063	Eucalyptus piperita	427349.92	6414224.10	20	90	22	0	1	0	1	0	0	0	0	1	1	
HT064	Dead Stag	427279.13	6414210.50	100	60	8	0	2	0	0	2	2	0	0	0	2	
HT065	Dead Stag	427287.32	6414159.31	100	70	25	0	2	0	0	2	2	0	0	0	2	
HT066	Dead Stag	427399.81	6414357.20	100	78	25	0	10	0	0	10	10	0	0	0	10	
HT067	Eucalyptus piperita	427435.54	6414376.13	40	80	20	0	4	fissures	0	4	0	0	0	0	4	
HT068	Dead Stag	427440.63	6414404.66	100	93	20	0	6	0	0	6	6	0	0	0	6	
HT069	Dead Stag	427497.97	6414354.32	100	92	20	4	0	0	4	0	0	0	0	4	4	
HT070	Dead Stag	427485.43	6414370.99	100	100	20	4	2	0	4	2	0	0	0	0	6	
HT071	Dead Stag	427442.37	6414465.28	100	120	12	2	0	0	2	0	0	0	0	2	2	
HT072	Dead Stag	427420.83	6414429.86	100	70	8	1	1	0	1	1	0	0	0	1	2	

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT073	Dead Stag	427085.00	6414220.00	100	220	20	1	0	1 v.large v.pipe	1	1	0	1	0	1	2	
HT074	Eucalyptus pilularis	427010.54	6414487.62	10	132	25	0	4	0	0	4	4	0	0	0	4	
HT075	Dead Stag	426969.90	6414579.52	100	150	20	1	2	1 large	2	2	0	0	0	2	4	
HT076	Dead Stag	426986.54	6414624.25	100	135	10	1	0	1	1	0	0	1	0	1	2	old tree, no longer suitable
HT077	Angophora costata	426900.03	6414763.67	10	82	20	0	0	1 small	1	0	0	0	0	0	1	
HT078	Dead Stag	426889.45	6414781.15	100	72	20	0	6	0	0	6	6	0	0	2	6	
HT079	Angophora costata	426913.00	6414735.00	50	80	20	1	0	0	1	0	0	0	0	1	1	
HT080	Dead Stag	426967.06	6414722.51	100	65	20	0	5	0	0	5	5	0	0	0	5	
HT081	Dead Stag	427027.50	6414725.83	100	50	18	0	3	0	0	3	0	0	0	0	3	
HT082	Dead Stag	427087.00	6414682.59	10	64	20	0	5	1	1	5	5	0	0	1	6	
HT083	Dead Stag	427072.74	6414675.91	100	57	14	0	2	1	1	3	3	0	0	1	4	
HT084	Dead Stag	427065.30	6414550.13	100	83	25	1	4	0	1	4	4	0	0	4	5	
HT085	Dead Stag	427054.46	6414513.28	100	124	18	0	0	1 large v.pipe	1	0	0	1	0	0	2	
HT086	Angophora costata	427048.66	6414512.94	20	84	20	0	0	1 small	1	0	0	0	0	1	1	
HT087	Dead Stag	427175.18	6414591.83	100	72	10	0	0	1 small v.pipe	1	0	0	1	0	1	1	small owl
HT088	Eucalyptus piperita	427207.62	6414645.58	80	70	18	0	5	0	0	5	5	0	0	0	5	
HT089	Dead Stag	427399.18	6414545.52	100	83	12	0	0	1 small	1	0	0	0	0	1	1	
HT090	Dead Stag	427452.50	6414514.32	100	90	10	0	0	1 medium v.pipe	1	0	0	1	0	1	1	
HT091	Dead Stag	427405.46	6414531.45	100	85	16	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT092	Dead Stag	427379.50	6414460.96	100	92	20	0	2	1 small	1	2	2	0	0	1	3	
HT093	Dead Stag	427327.98	6414500.53	100	80	18	0	3	fissures	1	2	2	0	0	1	3	
HT094	Dead Stag	427276.77	6414589.99	100	96	10	2	0	0	2	0	0	0	0	2	2	
HT095	Dead Stag	427282.86	6414597.02	100	80	15	0	4	0	0	4	4	0	0	0	4	
HT096	Dead Stag	427034.80	6414983.67	100	49	16	0	0	1 small	1	0	0	0	+	1	1	
HT097	Dead Stag	427011.17	6414919.84	100	70	16	0	0	2 small	2	0	0	0	0	2	2	

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT098	Eucalyptus acmenoides	426989.76	6414873.94	20	65	20	0	0	small fissures	0	fissures	0	0	0	0	fissures	
HT099	Dead Stag	426944.26	6414823.92	100	70	20	0	6	0	0	6	0	0	0	0	6	
HT100	Dead Stag	426724.51	6414689.37	100	102	20	0	6	0	0	6	6	0	0	0	6	
HT101	Dead Stag	426734.94	6414635.28	100	110	22	3	3	0	3	3	3	0	0	3	6	
HT102	Dead Stag	426733.11	6414770.16	100	60	10	0	0	1 small v.pipe	1	0	0	1	0	1	1	small owl
HT103	Eucalyptus pilularis	426901.00	6414948.00	20	90	25	0	2	0	0	2	2	0	0	0	2	
HT104	Dead Stag	426940.57	6415108.60	100	85	20	3	1	0	3	0	0	0	+	3	3	
HT105	Eucalyptus pilularis	426991.65	6415048.72	10	102	20	0	1	0	1	0	0	0	0	1	1	
HT106	Eucalyptus resinifera	427013.21	6415058.74	10	84	20	0	2	0	0	2	0	0	0	0	2	
HT107	Dead Stag	426956.61	6415223.78	100	126	25	1	2	0	1	2	2	0	0	1	3	
HT108	Eucalyptus acmenoides	426946.12	6415285.57	10	136	20	0	0	1 v.large v.pipe	0	0	0	1	0	0	1	very good Masked Owl tree
HT109	Angophora costata	427018.56	6415329.89	50	89	20	1	6	0	1	6	6	0	0	1	7	
HT110	Eucalyptus acmenoides	427031.92	6415320.77	70	85	20	0	3	0	1	2	2	0	0	1	3	
HT111	Eucalyptus acmenoides	427030.37	6415298.33	30	70	20	0	1	0	0	1	1	0	0	0	1	
HT112	Eucalyptus piperita	426971.87	6415195.51	20	85	20	0	2	1 small	0	3	3	0	0	0	3	
HT113	Angophora costata	427264.30	6415145.05	30	100	25	0	3	0	0	3	3	0	0	0	3	
HT114	Angophora costata	427250.16	6415156.17	20	123	25	0	3	0	0	3	3	0	0	0	3	
HT115	Corymbia gummifera	427234.47	6415227.84	20	97	25	1	0	1 small	2	4	4	0	0	2	6	
HT116	Eucalyptus piperita	427229.83	6415240.39	80	80	20	0	4	fissures	0	4	4	0	0	0	4	
HT117	Dead Stag	427229.54	6415253.20	100	70	20	0	0	fissures	0	fissures	0	0	0	0	fissures	
HT118	Eucalyptus piperita	427274.38	6415255.03	30	141	22	1	2	0	1	2	0	0	0	1	3	
HT119	Corymbia gummifera	427295.06	6415257.17	20	77	22	0	0	1 v.large v.pipe	1	0	0	1	0	1	1	small owl
HT120	Dead Stag	427422.75	6415264.36	100	120	8	0	0	1 v.large v.pipe	0	0	0	1	0	0	1	good Masked Owl tree
HT121	Dead Stag	427401.45	6415251.07	100	65	14	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT122	Eucalyptus acmenoides	427402.99	6415252.00	10	95	20	0	1	0	1	0	0	0	0	1	1	

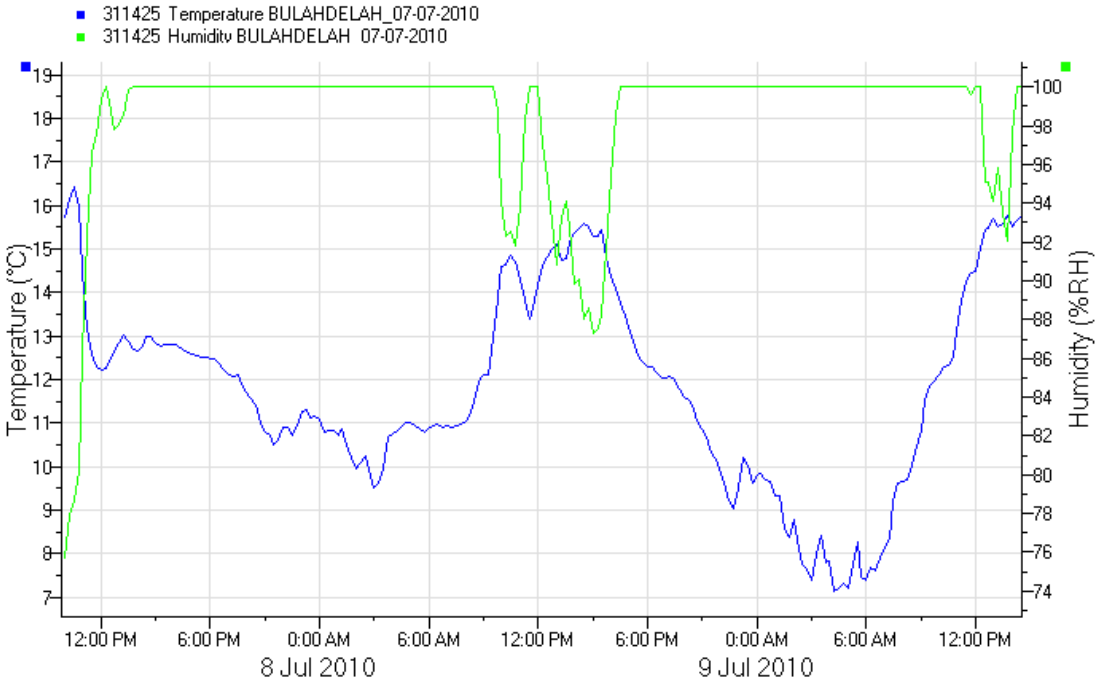
Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT123	Eucalyptus acmenoides	427391.89	6415237.32	10	51	20	0	0	1 small	1	0	0	0	0	1	1	
HT124	Dead Stag	427416.54	6415195.27	100	84	8	1	0	0	1	0	0	0	0	1	1	
HT125	Dead Stag	427446.12	6415198.44	90	77	20	2	0	0	2	0	0	0	0	2	2	
HT126	Eucalyptus piperita	427463.83	6415221.20	10	113	20	1	2	0	1	2	2	0	0	1	3	
HT127	Angophora costata	427435.19	6415227.01	90	113	20	0	0	2 medium	2	0	0	0	0	2	2	
HT128	Dead Stag	427409.94	6415276.52	100	80	10	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT129	Eucalyptus piperita	427401.81	6415286.92	10	70	20	0	0	fissures	0	fissures	0	0	0	0	fissures	
HT130	Angophora costata	427293.70	6415339.53	10	67	20	0	2	0	2	0	0	0	0	2	2	
HT131	Angophora costata	427282.32	6415338.94	20	98	20	1	0	1 v.large v.pipe	1	0	0	1	0	1	1	
HT132	Dead Stag	427218.33	6415347.98	100	70	12	0	0	1 small v.pipe	1	0	0	0	0	1	1	
HT133	Dead Stag	427294.19	6415373.70	100	130	10	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT134	Angophora costata	427341.44	6415380.88	90	45	8	0	3	0	0	3	0	0	0	0	3	
HT135	Dead Stag	427391.52	6415345.01	100	65	20	0	3	0	0	3	3	0	0	0	3	
HT136	Eucalyptus acmenoides	427472.13	6415277.17	70	108	20	2	1	0	2	1	1	0	0	2	3	
HT137	Eucalyptus acmenoides	427450.75	6415306.29	50	80	20	0	0	1 medium	1	0	0	0	0	1	1	
HT138	Eucalyptus acmenoides	427478.16	6415299.10	20	117	20	1	0	2 small	3	0	0	0	0	3	3	
HT139	Dead Stag	427502.59	6415299.27	100	80	20	2	0	0	2	0	0	0	0	2	2	
HT140	Dead Stag	427526.10	6415324.19	100	95	20	0	2	1 small	3	0	0	0	0	3	3	
HT141	Angophora costata	427543.09	6415329.26	40	82	20	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT142	Angophora costata	427570.01	6415341.53	30	80	20	0	0	1 medium v.pipe	1	0	0	1	0	1	1	
HT143	Eucalyptus piperita	427544.18	6415364.41	90	115	22	5	0	0	5	0	0	0	0	5	5	
HT144	Angophora costata	427520.55	6415345.08	60	75	20	1	0	1 medium	2	0	0	0	0	2	2	
HT145	Angophora costata	427484.83	6415385.47	60	80	20	0	3	0	3	0	0	0	0	3	3	
HT146	Angophora costata	427441.24	6415394.86	20	87	20	0	0	1 v.large v.pipe	1	0	0	0	0	1	1	
HT147	Angophora costata	427319.69	6415433.95	30	65	16	1	0	1 medium	2	0	0	0	0	2	2	

Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT148	Eucalyptus acmenoides	427248.14	6415463.07	20	80	20	0	3	0	0	3	3	0	0	3	3	
HT149	Eucalyptus acmenoides	427327.10	6415493.37	10	70	16	0	0	1 medium v.pipe	1	0	0	0	0	1	1	
HT150	Eucalyptus acmenoides	427344.99	6415524.00	50	100	16	0	4	1 small	1	4	4	0	0	1	5	
HT151	Angophora costata	427345.77	6415523.84	50	65	8	0	0	1 small v.pipe	1	0	0	1	0	1	1	
HT152	Eucalyptus piperita	427342.13	6415555.20	60	90	20	1	3	1 medium v.pipe	1	3	3	0	0	1	4	
HT153	Eucalyptus acmenoides	427375.85	6415475.02	10	92	22	1	4	0	1	4	4	0	0	1	5	
HT154	Angophora costata	427438.66	6415451.53	10	96	18	0	0	1 small	1	0	0	0	0	1	1	
HT155	Angophora costata	427514.86	6415460.94	30	105	16	0	0	1 v.large v.pipe	1	0	0	1	0	1	1	
HT156	Angophora costata	427497.50	6415502.42	10	84	18	0	0	1 small	1	0	0	0	0	1	1	
HT157	Eucalyptus piperita	427403.45	6415534.63	60	109	16	1	0	0	1	0	0	0	0	1	1	
HT158	Dead Stag	427443.74	6415608.45	100	65	12	0	0	2 small	1	1	1	0	0	1	2	
HT159	Angophora costata	427518.33	6415579.49	20	100	20	0	0	1 v.large v.pipe	1	0	0	1	0	1	1	very good Masked Owl tree
HT160	Angophora costata	427543.13	6415296.54	20	100	24	2	0	0	2	0	0	0	0	2	2	
HT161	Eucalyptus piperita	427531.91	6415272.56	50	120	20	1	0	0	1	0	0	0	0	1	1	
HT162	Eucalyptus piperita	427509.29	6415226.15	90	90	20	0	0	1 v.large v.pipe	1	0	0	0	0	0	1	open, no longer suitable
HT163	Dead Stag	427467.00	6415167.00	100	95	25	0	2	0	0	2	2	0	0	0	2	
HT164	Dead Stag	427449.51	6415107.16	100	110	15	2	0	1 v.large v.pipe	2	0	0	1	0	3	3	
HT165	Eucalyptus acmenoides	427370.41	6415114.62	30	105	25	2	0	1 medium	3	0	0	0	0	3	3	
HT166	Angophora costata	427358.80	6415137.94	20	100	20	1	0	1 large	1	0	0	1	0	1	2	great Powerful Owl tree
HT167	Angophora costata	427335.46	6415140.22	20	95	20	2	0	1 large	2	0	0	1	0	2	3	
HT168	Eucalyptus piperita	427299.35	6415160.06	10	120	20	0	0	4 small	0	4	4	0	0	4	4	
HT169	Angophora costata	427288.01	6415136.38	20	80	20	0	0	1 large	1	0	0	0	0	1	1	
HT170	Dead Stag	427288.77	6415130.05	10	65	16	0	2	0	0	2	2	0	0	0	2	
HT171	Eucalyptus piperita	427266.78	6415173.50	20	75	20	0	0	3 small	1	2	2	0	0	1	3	
HT172	Dead Stag	427440.70	6414994.58	100	50	16	0	3	0	0	3	3	0	0	0	3	

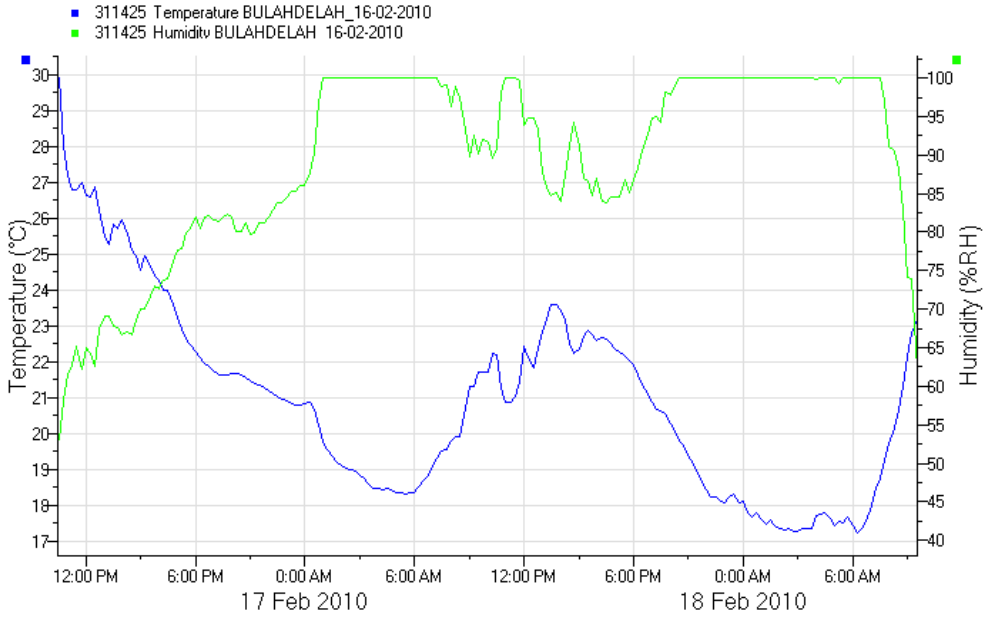
Tree ID	Tree Species	East GDA94	North GDA94	% dead	DBH (cm)	Height (m)	Major Spout	Minor Spout	Trunk Hollows	Possum	Bat	Glider	Owl	Bees	Reptile	Total Hollows	Notes
HT173	Dead Stag	427431.00	6414884.00	100	65	18	0	2	1 small	1	2	2	0	0	1	3	
HT174	Dead Stag	427413.75	6414857.98	100	75	16	1	1	0	1	0	0	0	0	1	2	Lace monitor present
HT175	Dead Stag	427450.69	6414855.60	100	70	20	0	1	fissures	0	fissures	0	0	0	0	fissures	
HT176	Dead Stag	427451.63	6414859.95	100	60	10	0	0	fissures + 1 small v.pipe	0	fissures	0	0	0	0	fissures	
HT177	Dead Stag	427472.07	6414799.01	100	56	14	0	0	1 small	1	0	0	0	0	1	1	
HT178	Dead Stag	427484.26	6414779.85	100	70	10	0	0	1 small	1	0	0	0	0	0	1	
HT179	Dead Stag	427460.00	6414597.00	100	60	20	0	4	0	0	4	0	0	0	0	4	
HT180	Dead Stag	427307.55	6414617.88	100	60	12	0	2	0	1	1	0	0	0	1	2	
HT181	Dead Stag	427413.47	6414812.53	100	80	18	0	7	0	2	5	5	0	0	2	7	
HT182	Dead Stag	427389.91	6414826.05	100	80	16	1	4	1 small	2	4	4	0	0	2	6	
HT183	Dead Stag	427375.18	6414855.10	100	60	14	0	3	0	0	3	0	0	0	0	3	
HT184	Dead Stag	427297.88	6414840.63	100	60	8	0	0	1 small v.pipe	0	0	0	0	0	0	0	open, no longer suitable
HT185	Dead Stag	427273.00	6414820.00	100	70	10	0	0	1 small v.pipe	1	0	0	0	0	1	1	
HT186	Dead Stag	427295.30	6414863.02	100	60	16	3	0	0	3	0	0	0	0	3	3	
HT187	Dead Stag	427323.06	6414865.31	100	50	8	0	0	1 small v.pipe	0	1	0	0	0	0	1	
HT188	Dead Stag	427360.32	6414883.29	100	40	16	0	3	0	0	3	3	0	0	0	3	
HT189	Dead Stag	427364.64	6414882.65	100	70	18	0	2	2 small	0	2	2	0	0	0	2	
HT190	Dead Stag	427423.32	6414925.83	100	105	8	0	0	1 v.large v.pipe	0	0	0	1	0	0	1	very good Masked Owl tree
HT191	Eucalyptus piperita	427383.95	6415060.06	10	60	16	0	0	1 v.large v.pipe	1	0	0	0	0	1	1	
HT192	Dead Stag	427352.45	6415061.35	100	40	8	0	0	1 small v.pipe	1	0	0	1	0	1	1	small owl

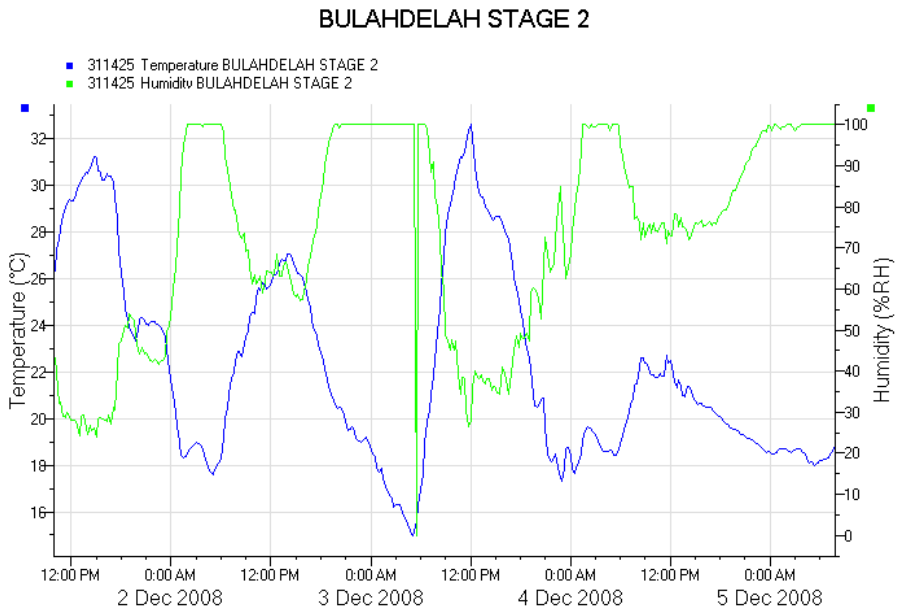
APPENDIX 23- CLIMATE DATA

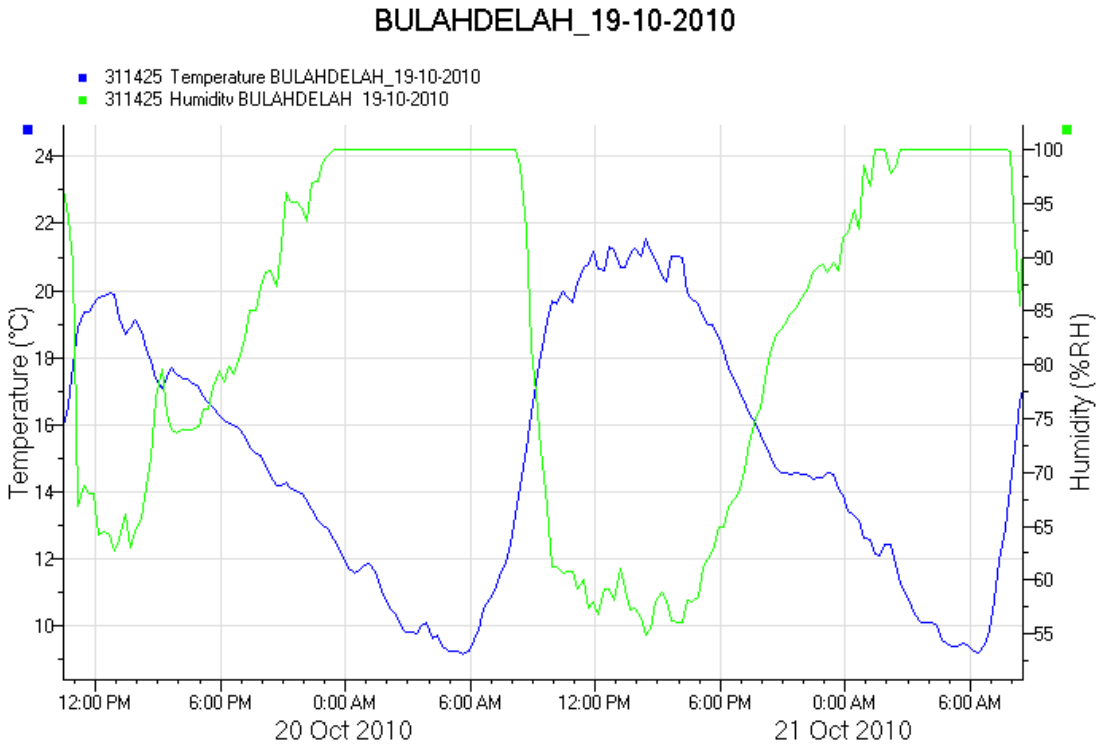
BULAHDELAH_07-07-2010



BULAHDELAH_16-02-2010







12
TypeTinytag PLUS2 °C/%RHTinytag PLUS2 °C/%RH
S/N311425311425
DescriptionBULAHDELAH_19-10-2010BULAHDELAH_19-10-2010
PropertyTemperatureHumidity
Logging Started2010-10-19 10:10:122010-10-19 10:10:12
Logging Ended2010-10-22 07:55:122010-10-22 07:55:12
Logging Duration251100 s251100 s
Download OperatorRobert PayneRobert Payne

Capacity65536 bytes65536 bytes
Trigger StartNoNo
Start Delay10920 s10920 s
Interval900 s900 s
Stop ModeWhen fullWhen full
Last Calibrated2005-11-152005-11-15
Offload Time2010-10-22 07:55:412010-10-22 07:55:41
Number of Readings280280
Stop ReasonUser Requested StopUser Requested Stop
Logging ModeSeconds ModeSeconds Mode
Statistics Start Time2010-10-19 10:30:002010-10-19 10:30:00
Statistics End Time2010-10-21 08:30:002010-10-21 08:30:00
Minimum Reading9.2 °C54.8 %RH
Maximum Reading21.6 °C100.0 %RH
Average Reading15.0 °C83.5 %RH

Time12
12010-10-19 10:40:1216.550 °C93.6 %RH
22010-10-19 10:55:1217.792 °C89.6 %RH
32010-10-19 11:10:1218.900 °C66.9 %RH
42010-10-19 11:25:1219.385 °C68.8 %RH
52010-10-19 11:40:1219.347 °C68.1 %RH
62010-10-19 11:55:1219.597 °C68.1 %RH
72010-10-19 12:10:1219.795 °C64.2 %RH
82010-10-19 12:25:1219.822 °C64.5 %RH
92010-10-19 12:40:1219.948 °C64.2 %RH
102010-10-19 12:55:1219.908 °C62.8 %RH
112010-10-19 13:10:1219.183 °C63.7 %RH
122010-10-19 13:25:1218.695 °C66.2 %RH
132010-10-19 13:40:1218.904 °C63.0 %RH
142010-10-19 13:55:1219.137 °C64.5 %RH
152010-10-19 14:10:1218.789 °C65.7 %RH
162010-10-19 14:25:1218.285 °C68.6 %RH
172010-10-19 14:40:1217.880 °C71.3 %RH
182010-10-19 14:55:1217.377 °C76.9 %RH
192010-10-19 15:10:1217.068 °C79.6 %RH
202010-10-19 15:25:1217.442 °C75.4 %RH
212010-10-19 15:40:1217.682 °C74.0 %RH
222010-10-19 15:55:1217.527 °C73.7 %RH
232010-10-19 16:10:1217.369 °C74.0 %RH
242010-10-19 16:25:1217.357 °C74.0 %RH
252010-10-19 16:40:1217.234 °C74.0 %RH
262010-10-19 16:55:1217.131 °C74.2 %RH
272010-10-19 17:10:1216.847 °C75.9 %RH
282010-10-19 17:25:1216.641 °C75.9 %RH
292010-10-19 17:40:1216.542 °C77.9 %RH
302010-10-19 17:55:1216.274 °C79.4 %RH
312010-10-19 18:10:1216.128 °C78.4 %RH
322010-10-19 18:25:1216.052 °C79.9 %RH
332010-10-19 18:40:1215.997 °C79.1 %RH
342010-10-19 18:55:1215.851 °C80.9 %RH
352010-10-19 19:10:1215.680 °C82.4 %RH
362010-10-19 19:25:1215.317 °C85.1 %RH
372010-10-19 19:40:1215.122 °C85.1 %RH

382010-10-19 19:55:1215.077 °C87.3 %RH
392010-10-19 20:10:1214.804 °C88.6 %RH
402010-10-19 20:25:1214.457 °C88.8 %RH
412010-10-19 20:40:1214.188 °C87.3 %RH
422010-10-19 20:55:1214.200 °C91.1 %RH
432010-10-19 21:10:1214.284 °C96.1 %RH
442010-10-19 21:25:1214.108 °C95.1 %RH
452010-10-19 21:40:1214.028 °C95.1 %RH
462010-10-19 21:55:1213.958 °C94.6 %RH
472010-10-19 22:10:1213.761 °C93.3 %RH
482010-10-19 22:25:1213.483 °C96.8 %RH
492010-10-19 22:40:1213.153 °C97.1 %RH
502010-10-19 22:55:1213.015 °C98.8 %RH
512010-10-19 23:10:1212.910 °C99.3 %RH
522010-10-19 23:25:1212.593 °C100.0 %RH
532010-10-19 23:40:1212.332 °C100.0 %RH
542010-10-19 23:55:1212.056 °C100.0 %RH
552010-10-20 00:10:1211.731 °C100.0 %RH
562010-10-20 00:25:1211.600 °C100.0 %RH
572010-10-20 00:40:1211.699 °C100.0 %RH
582010-10-20 00:55:1211.812 °C100.0 %RH
592010-10-20 01:10:1211.853 °C100.0 %RH
602010-10-20 01:25:1211.622 °C100.0 %RH
612010-10-20 01:40:1211.183 °C100.0 %RH
622010-10-20 01:55:1210.826 °C100.0 %RH
632010-10-20 02:10:1210.492 °C100.0 %RH
642010-10-20 02:25:1210.336 °C100.0 %RH
652010-10-20 02:40:1210.022 °C100.0 %RH
662010-10-20 02:55:129.822 °C100.0 %RH
672010-10-20 03:10:129.818 °C100.0 %RH
682010-10-20 03:25:129.803 °C100.0 %RH
692010-10-20 03:40:1210.007 °C100.0 %RH
702010-10-20 03:55:1210.129 °C100.0 %RH
712010-10-20 04:10:129.641 °C100.0 %RH
722010-10-20 04:25:129.749 °C100.0 %RH
732010-10-20 04:40:129.423 °C100.0 %RH
742010-10-20 04:55:129.271 °C100.0 %RH
752010-10-20 05:10:129.278 °C100.0 %RH
762010-10-20 05:25:129.240 °C100.0 %RH
772010-10-20 05:40:129.178 °C100.0 %RH
782010-10-20 05:55:129.246 °C100.0 %RH
792010-10-20 06:10:129.582 °C100.0 %RH
802010-10-20 06:25:129.868 °C100.0 %RH
812010-10-20 06:40:1210.547 °C100.0 %RH
822010-10-20 06:55:1210.820 °C100.0 %RH
832010-10-20 07:10:1211.080 °C100.0 %RH
842010-10-20 07:25:1211.510 °C100.0 %RH
852010-10-20 07:40:1211.889 °C100.0 %RH
862010-10-20 07:55:1212.448 °C100.0 %RH
872010-10-20 08:10:1213.329 °C100.0 %RH
882010-10-20 08:25:1214.164 °C98.6 %RH
892010-10-20 08:40:1215.282 °C92.6 %RH
902010-10-20 08:55:1216.315 °C81.6 %RH
912010-10-20 09:10:1217.247 °C77.4 %RH
922010-10-20 09:25:1218.102 °C72.2 %RH

932010-10-20 09:40:1219.089 °C66.9 %RH
942010-10-20 09:55:1219.696 °C61.3 %RH
952010-10-20 10:10:1219.599 °C61.3 %RH
962010-10-20 10:25:1219.975 °C60.6 %RH
972010-10-20 10:40:1219.801 °C60.8 %RH
982010-10-20 10:55:1219.671 °C60.8 %RH
992010-10-20 11:10:1220.201 °C59.1 %RH
1002010-10-20 11:25:1220.708 °C60.1 %RH
1012010-10-20 11:40:1220.765 °C57.5 %RH
1022010-10-20 11:55:1221.162 °C57.9 %RH
1032010-10-20 12:10:1220.658 °C56.7 %RH
1042010-10-20 12:25:1220.615 °C59.1 %RH
1052010-10-20 12:40:1221.319 °C59.1 %RH
1062010-10-20 12:55:1221.208 °C58.2 %RH
1072010-10-20 13:10:1220.685 °C61.1 %RH
1082010-10-20 13:25:1220.708 °C59.1 %RH
1092010-10-20 13:40:1221.073 °C57.2 %RH
1102010-10-20 13:55:1221.257 °C57.5 %RH
1112010-10-20 14:10:1221.018 °C56.5 %RH
1122010-10-20 14:25:1221.557 °C54.8 %RH
1132010-10-20 14:40:1221.152 °C55.5 %RH
1142010-10-20 14:55:1220.942 °C57.9 %RH
1152010-10-20 15:10:1220.449 °C58.9 %RH
1162010-10-20 15:25:1220.265 °C58.2 %RH
1172010-10-20 15:40:1221.030 °C56.3 %RH
1182010-10-20 15:55:1221.015 °C56.0 %RH
1192010-10-20 16:10:1220.995 °C56.0 %RH
1202010-10-20 16:25:1219.951 °C58.2 %RH
1212010-10-20 16:40:1219.753 °C57.9 %RH
1222010-10-20 16:55:1219.587 °C58.4 %RH
1232010-10-20 17:10:1219.241 °C61.1 %RH
1242010-10-20 17:25:1218.975 °C62.0 %RH
1252010-10-20 17:40:1218.988 °C62.8 %RH
1262010-10-20 17:55:1218.623 °C64.9 %RH
1272010-10-20 18:10:1218.185 °C64.9 %RH
1282010-10-20 18:25:1217.722 °C66.9 %RH
1292010-10-20 18:40:1217.349 °C67.6 %RH
1302010-10-20 18:55:1217.015 °C68.4 %RH
1312010-10-20 19:10:1216.717 °C70.1 %RH
1322010-10-20 19:25:1216.339 °C72.7 %RH
1332010-10-20 19:40:1216.026 °C74.9 %RH
1342010-10-20 19:55:1215.725 °C75.9 %RH
1352010-10-20 20:10:1215.443 °C78.7 %RH
1362010-10-20 20:25:1215.097 °C81.1 %RH
1372010-10-20 20:40:1214.736 °C82.8 %RH
1382010-10-20 20:55:1214.564 °C83.3 %RH
1392010-10-20 21:10:1214.566 °C83.8 %RH
1402010-10-20 21:25:1214.545 °C84.8 %RH
1412010-10-20 21:40:1214.570 °C85.3 %RH
1422010-10-20 21:55:1214.528 °C86.3 %RH
1432010-10-20 22:10:1214.543 °C86.8 %RH
1442010-10-20 22:25:1214.402 °C88.6 %RH
1452010-10-20 22:40:1214.437 °C89.1 %RH
1462010-10-20 22:55:1214.453 °C89.3 %RH
1472010-10-20 23:10:1214.562 °C88.6 %RH

1482010-10-20 23:25:1214.509 °C89.6 %RH
1492010-10-20 23:40:1214.086 °C88.8 %RH
1502010-10-20 23:55:1213.892 °C91.8 %RH
1512010-10-21 00:10:1213.442 °C92.3 %RH
1522010-10-21 00:25:1213.272 °C94.3 %RH
1532010-10-21 00:40:1213.166 °C92.6 %RH
1542010-10-21 00:55:1212.647 °C98.6 %RH
1552010-10-21 01:10:1212.605 °C96.6 %RH
1562010-10-21 01:25:1212.175 °C100.0 %RH
1572010-10-21 01:40:1212.127 °C100.0 %RH
1582010-10-21 01:55:1212.451 °C100.0 %RH
1592010-10-21 02:10:1212.417 °C97.8 %RH
1602010-10-21 02:25:1211.812 °C98.3 %RH
1612010-10-21 02:40:1211.317 °C100.0 %RH
1622010-10-21 02:55:1211.039 °C100.0 %RH
1632010-10-21 03:10:1210.595 °C100.0 %RH
1642010-10-21 03:25:1210.303 °C100.0 %RH
1652010-10-21 03:40:1210.091 °C100.0 %RH
1662010-10-21 03:55:1210.091 °C100.0 %RH
1672010-10-21 04:10:1210.119 °C100.0 %RH
1682010-10-21 04:25:1210.027 °C100.0 %RH
1692010-10-21 04:40:129.600 °C100.0 %RH
1702010-10-21 04:55:129.461 °C100.0 %RH
1712010-10-21 05:10:129.389 °C100.0 %RH
1722010-10-21 05:25:129.410 °C100.0 %RH
1732010-10-21 05:40:129.481 °C100.0 %RH
1742010-10-21 05:55:129.395 °C100.0 %RH
1752010-10-21 06:10:129.237 °C100.0 %RH
1762010-10-21 06:25:129.211 °C100.0 %RH
1772010-10-21 06:40:129.428 °C100.0 %RH
1782010-10-21 06:55:129.884 °C100.0 %RH
1792010-10-21 07:10:1210.787 °C100.0 %RH
1802010-10-21 07:25:1211.964 °C100.0 %RH
1812010-10-21 07:40:1212.916 °C100.0 %RH
1822010-10-21 07:55:1214.155 °C99.8 %RH
1832010-10-21 08:10:1215.353 °C91.8 %RH
1842010-10-21 08:25:1216.703 °C85.6 %RH
1852010-10-21 08:40:1217.407 °C97.1 %RH