

Vegetation of Gibraltar Rock

On Tuesday, April 25th 2000 I conducted a vegetation survey, by way of a 50m x 20m quadrat, in the south-eastern corner of the Gibraltar Rock Trig Reserve. A total of 94 species were found in and around the quadrat, with 680 within the 0.1 ha area. The site selected was in White Box ? Grey Box ? Black Cypress woodland, which is atypical of the reserve which, is largely covered by Currawang closed shrubland. Members of the Dubbo Field Naturalist Club identified an additional 20 species during a visit to the reserve in 1998.

The total survey area covers an area of approximately 45 ha and is based on the trig station on Gibraltar Rock, at approximately 371m altitude. The main lithology is rhyolite. The reserve had been completely burnt in December 1984, with fire scars and dead trees near the trig station. In addition the trunks of standing fire-killed cypress were well represented in the quadrat. Several large Cypress, both Black and White had survived the fire. The more open canopy in conjunction with the heavy recent rains had promoted a dense groundcover within the site. Summer flowering species were still identifiable and a number of winter-growing species were emerging at the time of the survey (*Dichopogon*, *Hypoxis*, *Thysanotus*, *Pterostylis* and *Drosera*)

Exotic species formed a small proportion of the total flora but did include such common weeds as Saffron Thistle, Barley Grass/ Rye Grass, Spear Thistle, *Lepidium africanum*, Paterson's Curse and Flatweed.

The adjacent Currawang closed shrubland was investigated briefly and found to have a much lower species diversity. The common ground cover species included Barley Grass/ Rye Grass, Flatweed, Medics and Rock Fern.

A number of unusual species were seen near the site, particularly *Muehlenbeckia rhytica* and *Pterostylis* sp aff *revoluta* (Inland Form). The former occurred as scattered shrubs at the base of the rock outcrop particularly on the southern side (D. Shelly pers comm, 2000). These have conspicuously broad fleshy leaves, almost square in outline and the leaf base includes a conspicuous sheath of the adjacent stem. The large plant near the quadrat was in flower and found to be a male plant. Given that this species is dioecious (ie separate male and female plants) and apparently insect pollinated this population may be placed at risk of local extinction if plant numbers are reduced or all plants of one sex are eliminated.

A cluster of flowering greenhood orchids was found in a thin rock shelf on the southern face of Gibraltar Rock. Approximately 8 flowers were open and they were best keyed out to *Pterostylis* sp aff *revoluta* (Inland Form) following Bishop (1996), however it is noted that the flowers had more brown at the flower tip than the plant shown in the photo.

An analysis of TSCAB indicates that a number of threatened plant species have potential to occur in the reserve including *Diuris shaeffiana*, *Goodenia macbarronii*, *Homoranthus darwinioides* and *Indigofera efoliata*.

Further field work in the reserve is recommended, particularly covering other parts of the reserve, such as the northern and western slopes. Formal quadrats in other vegetation types, particularly the Currawang closed shrubland is recommended to enable formal comparison with the vegetation quadrat done to date.

Bishop, T. (1996) Field Guide to the orchids of New South Wales and Victoria. UNSW Press.

Robert Gibson 1/5/2000

Family	Latin Name	Common Name	Location	Notes
Amaranthaceae	<i>Alternanthera denticulata</i>	Lesser Joyweed	Quadrat	
Anthericaceae	<i>Dichopogon ?strictus</i>	Chocolate Lily	Quadrat	
Anthericaceae	<i>Thysanotus tuberosus</i> var <i>tuberosus</i>	Common Fringe-lily	Quadrat	
Anthericaceae	<i>Tricoryne elatior</i>	Yellow Rush-lily	Survey Area	Field Nats, 11/1998
Apiaceae	<i>Daucus glochidiatus</i> (Form D)	Wild Carrot	Quadrat	Immature:F/Nats, 11/1998
Apocynaceae	<i>Parsonia eucalyptoides</i>	Gargaloo	Quadrat	
Asphodelaceae	<i>Bulbine bulbosa</i>	Native Leek	Survey Area	Field Nats, 11/1998
Asphodelaceae	<i>Bulbine semibarbata</i>	Leek Lily	Quadrat	
Asteraceae	<i>Bracteantha bracteata</i>	Yellow Everlasting	Quadrat	
Asteraceae	<i>Calotis cuneata</i>	Purple Burr-daisy	Quadrat	
Asteraceae	<i>Calotis lappulacea</i>	Yellow Burr-daisy	Quadrat	
Asteraceae	<i>Carthamus lanatus</i> *	Saffron Thistle	Quadrat	
Asteraceae	<i>Chrysocephalum semipapposum</i>	An Everlasting Daisy	Quadrat	
Asteraceae	<i>Cirsium vulgare</i> *	Spear Thistle	Quadrat	
Asteraceae	<i>Conyza bonariensis</i> *	Flaxleaf Flea-bane	Quadrat	
Asteraceae	<i>Cymbonatus lawsonianus</i>	Bears-ear	Quadrat	
Asteraceae	<i>Hyalosperma praecox</i>	Fine-leaf Sunray	Survey Area	Field Nats, 11/1998
Asteraceae	<i>Hypochaeris radicata</i> *	Flatweed	Quadrat	Yellow flowers
Asteraceae	<i>Myriocephalus rhizocephalus</i>	Woolly Heads	Survey Area	Field Nats, 11/1998
Asteraceae	<i>Senecio quadridentatis</i>	Cotton Fireweed	Quadrat	
Asteraceae	<i>Solenogyne belloides</i>	A Solenogyne	Quadrat	
Asteraceae	<i>Sonchus oleracea</i> *	Common Sow-Thistle	Quadrat	
Asteraceae	<i>Triptilodiscus pygmaeus</i>	Austral Sunray	Survey Area	Field Nats, 11/1998
Asteraceae	<i>Vittadinia gracilis</i>	A Fuzzweed	Quadrat	
Boraginaceae	<i>Echium vulgare</i> *	Paterson's' Curse	Quadrat	
Brassicaceae	<i>Lepidium africanum</i> *	A Peppercross	Quadrat	
	<i>Senecio artemioides</i> var		Survey	

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Caelaspinaceae	Senna <i>artemisioides</i> ssp <i>zygophylla</i>	Punty Bush	Survey Area	
Campanulaceae	<i>Wahlenbergia communis</i>	Tufted Bluebell	Quadrat	Oblong, hairy leaves
Campanulaceae	<i>Wahlenbergia communis</i>	Tufted Bluebell	Quadrat	
Campanulaceae	<i>Wahlenbergia gracilis</i>	Austral Bluebell	Quadrat	White flower
Campanulaceae	<i>Wahlenbergia stricta var alterna</i>	Tall Bluebell	Quadrat	
Caryophyllaceae	<i>Petrorhagia nanteuilii</i> *	Proliferous Pink	Survey Area	Field Nats, 11/1998
Casuarinaceae	<i>Casuarina cristata</i>	Belah	Quadrat	
Chenopodiaceae	<i>Einadia trigonus</i> ssp <i>leiocarpa</i>	Fishweed	Quadrat	
Colchiaceae	<i>Wurmbea dioica</i>	Early Nancy	Survey Area	Field Nats, 11/1998
Convolvulaceae	<i>Dichondra</i> sp A	Kidney Weed	Quadrat	
Crassulaceae	<i>Crassula seiberiana</i>	Australian Stonecrop	Survey Area	Field Nats, 11/1998
Cupressaceae	<i>Callitris enlicheri</i>	Black Cypress	Quadrat	
Cupressaceae	<i>Callitris glaucophylla</i>	White Cypress	Survey Area	
Cyperaceae	?		Quadrat	conical fruit
Cyperaceae	<i>Carex inversa</i>	Knob Sedge	Quadrat	
Cyperaceae	<i>Carex</i> species		Survey Area	
Cyperaceae	<i>Fimbristylis dichotoma</i>	Common Fringe- rush	Quadrat	
Cyperaceae	<i>Lepidosperma laterale</i>	Sword Sedge	Survey Area	
Droseraceae	<i>Drosera peltata</i>	Pale Sundew	Survey Area	On summit of Gibraltar Rock
Euphorbiaceae	<i>Chamaesyce drummondii</i>	Caustic Weed	Quadrat	
Fabaceae	<i>Acacia doratoxylon</i>	Currawang	Survey Area	
Fabaceae	<i>Glycine tabacina</i> Taxon A	Variable Glycine	Quadrat	
Fabaceae	<i>Hardenbergia violacea</i>	False Sarsparilla	Survey Area	
Fabaceae	<i>Medicago truncatula</i> *	Barrell Medic	Quadrat	
Geraniaceae	<i>Geranium retrorsum</i> / <i>solanderi</i>	A Crowfoot	Quadrat	No flowers
Goodeniaceae	<i>Goodenia</i> sp	A Goodenia	Quadrat	hairy rosette, no flowers

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Haloragaceae	Holaragis asperula	Rough Raspwort	Quadrat	
Hypericaceae	Hypericum gramineum	Small St. John's Wort	Quadrat	
Hypoxidaceae	Hypoxis glabella var glabella	Tiny Stars	Quadrat	
Juncaceae	Juncus bufonius *	Toad Rush	Survey Area	Field Nats, 11/1998
Juncaceae	Juncus sp	A Juncus	Quadrat	
Laminaceae	?	?	Survey Area	flowering
Laminaceae	Salvia verbenaca *	Wild Sage	Quadrat	
Laminaceae	Stachys arvensis *	Stagger Weed	Quadrat	
Lobeliaceae	Isotoma axillaris	Showy Isotome	Survey Area	
Malvaceae	Sida corrugata	Corrugated Sida	Quadrat	
Mimosoideae	Acacia decora	Western Golden Wattle	Survey Area	
Mimosoideae	Acacia penninervis	Mountain Hickory	Survey Area	
Myrtaceae	Eucalyptus albens	White Box	Quadrat	
Myrtaceae	Eucalyptus dealbata	Tumbledown Red Gum	Quadrat	
Myrtaceae	Eucalyptus dwyeri	Dwyer's Red Gum	Survey Area	Field Nats, 11/1998
Myrtaceae	Eucalyptus microcarpa	White Box	Quadrat	
Myrtaceae	Leptospermum ? divaricatum	A Tea-tree	Survey Area	
Orchidaceae	Diuris goonooensis	A Donkey Orchid	Survey Area	Field Nats, 11/1998
Orchidaceae	Microtis uniflora	Common Onion Orchid	Survey Area	Field Nats, 11/1998
Orchidaceae	Pterostylis sp aff revoluta (Inland Form)	A Greenhood Orchid	Survey Area	
Oxalidaceae	Oxalis chnoodes	Wood Sorrel	Quadrat	
Oxalidaceae	Oxalis perennans	Wood Sorrel	Quadrat	
Phormidraceae	Dianlla revoluta	Spreading Flax-Lily	Quadrat	
Phormidraceae	Stypantra glauca	Nodding Blue-Lily	Quadrat	
Poaceae	Aristida ramosa var speciosa	Purple Wiregrass	Quadrat	
Poaceae	Austrodanthonia monticola	Wallaby Grass	Quadrat	
Poaceae	Austrodanthonia setacea	Small-flowered Wallaby Grass	Survey Area	Field Nats, 11/1998
			Survey	

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Poaceae	<i>Austrostipa densiflora</i>	Foxtail Speargrass	Survey Area	Field Nats, 11/1998
Poaceae	<i>Austrostipa scabra</i>	Rough Speargrass	Quadrat	
Poaceae	<i>Austrostipa setacea</i>	Corkscrew Grass	Survey Area	Field Nats, 11/1998
Poaceae	<i>Bothriochloa macra</i>	Red-leg Grass	Quadrat	
Poaceae	<i>Briza maxima</i> *	Quaking Grass	Survey Area	Field Nats, 11/1998
Poaceae	<i>Briza minor</i> *	Shivering Grass	Survey Area	Field Nats, 11/1998
Poaceae	<i>Bromus hordeaceus</i> *	Soft Brome	Survey Area	Field Nats, 11/1998
Poaceae	<i>Chloris truncata</i>	Windmill Grass	Quadrat	
Poaceae	<i>Cymbopogon refractus</i>	Barbed-Wire Grass	Survey Area	
Poaceae	<i>Digitaria diffusa</i>	A Panic	Quadrat	
Poaceae	<i>Digitaria subxerophilum</i>	A Digitaria	Quadrat	
Poaceae	<i>Elymus scaber</i>	Common Wheat Grass	Survey Area	
Poaceae	<i>Enteropogon acicularis</i>	Curly Windmill Grass	Quadrat	
Poaceae	<i>Eragrostis leptostachya</i>	A Lovegrass	Quadrat	
Poaceae	<i>Eragrostis parviflora</i>	Weeping Lovegrass	Quadrat	
Poaceae	<i>Lamarkia aurea</i> *	Golden-top	Survey Area	Field Nats, 11/1998
Poaceae	<i>Lolium / Hordeum</i>	Ryegrass / Barley Grass	Quadrat	
Poaceae	<i>Paspalidium aversum</i>	Bent Summer Grass	Quadrat	
Poaceae	<i>Vulpia bromoides</i> *	Squirrel-tail Fescue	Survey Area	Field Nats, 11/1998
Polygonaceae	<i>Muehlenbeckia rhyticarya</i>	A Muehlenbeckia	Survey Area	
Polygonaceae	<i>Rumex</i> sp	A Dockweed	Quadrat	Immature
Primulaceae	<i>Anagallis arvensis</i> *	Pimpernell	Quadrat	
Santalaceae	<i>Exocarpus ?strictus</i>	Dwarf Cherry	Survey Area	
Sapindaceae	<i>Alectryon oleifolius</i>	Western Rosewood	Survey Area	Field Nats, 11/1998
Sapindaceae	<i>Dodonaea heteromorpha</i>	Propeller Bush	Survey Area	
Sapindaceae	<i>Dodonaea viscosa</i> ssp <i>spathulata</i>	A Hopbush	Survey Area	

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Scrophulariaceae	Linaria sp *	A Toadflax	Survey Area	Field Nats, 11/1998
Sinopteridaceae	Cheilanthes sieberi	Rock Fern	Quadrat	
Solanaceae	Solanum ?brownii	A Solanum	Quadrat	
Solanaceae	Solanum esuriale	Quena	Survey Area	
Solanaceae	Solanum nigrum *	Black-berry Nightshade	Survey Area	
Stackhousia	Stackhousia species	A Stackhousia	Survey Area	
Sterculiaceae	Brachychiton populnea	Kurrajong	Quadrat	
Stylidiaceae	Levenhookia dubia	Hairy Stylewort	Survey Area	Field Nats, 11/1998
Violaceae	Hybanthus monopetalus	Showy Violet	Survey Area	Field Nats, 11/1998
* = exotic species				

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