

THE  
BLACKBUTT PLATEAU  
FLORA RESERVE  
PROPOSAL

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A SUBMISSION  
TO THE MINISTER  
FOR NATURAL RESOURCES

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THE WILSON'S CREEK ACTION GROUP

THE BLACKBUTT PLATEAU

FLORA RESERVE PROPOSAL

A submission to the Honorable Janice A. Crosio, M.P.,  
Minister for Natural Resources, prepared by the  
Wilson's Creek Action Group.

June 1984

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#### LOCATION AND SIZE (see MAP 1)

The Blackbutt Plateau, enclosed within Nullum State Forest, lies 12km West of Mullumbimby and 30km north-north-east of Lismore. The area occupies approximately 320 ha, comprising Forestry Commission Compartments 27 and 97 and part of Compartment 23.

#### PHYSICAL FEATURES (see MAP 1)

The Plateau, a southern "peninsula" of the Koonyum Range, is a precisely delineated elevated block of rhyolytic rock. Aligned with its long axis north-south, it is connected to the main body of the Range by a narrow ridge. Together with the Nightcap Range, to which it is linked by the Doon Doon Saddle, the Koonyum Range forms an island of high altitude forested country isolated from the remainder of the Mt Warning caldera rim by low lying valleys and plains.

Formed by erosion of the valleys of Cooper's and Wilson's Creeks, the Plateau rises steeply on all sides from 200 to 300m, levelling out between 500 to 600m with a high point of 694m. Sheer cliffs fringe the northern and eastern sides and the western side is also very steeply sloped. Extensive patches of rock outcrops are present and soil cover varies from thin to moderately deep. The grey and brown soils appear to be derived from rhyolite and of generally low fertility. Richest deposits are around the base of the Plateau and in small gullies on its eastern side where these have been eroded by creeks before tumbling over the escarpment into Wilson's Creek.

Despite the steep inclines, ascent to the Plateau may be gained from either eastern or western sides where impressive views are obtained of the Nightcap Range to the west and 800m Mt Jerusalem to the north. To the east the spurs of Koonyum Range lead out onto the coastal plains of the Tweed, Brunswick and Richmond Rivers and a panoramic vista unfolds from Tweed Heads south to Ballina. In the central background lies Cape Byron, Australia's most easterly point.

#### FLORA (see MAP 2)

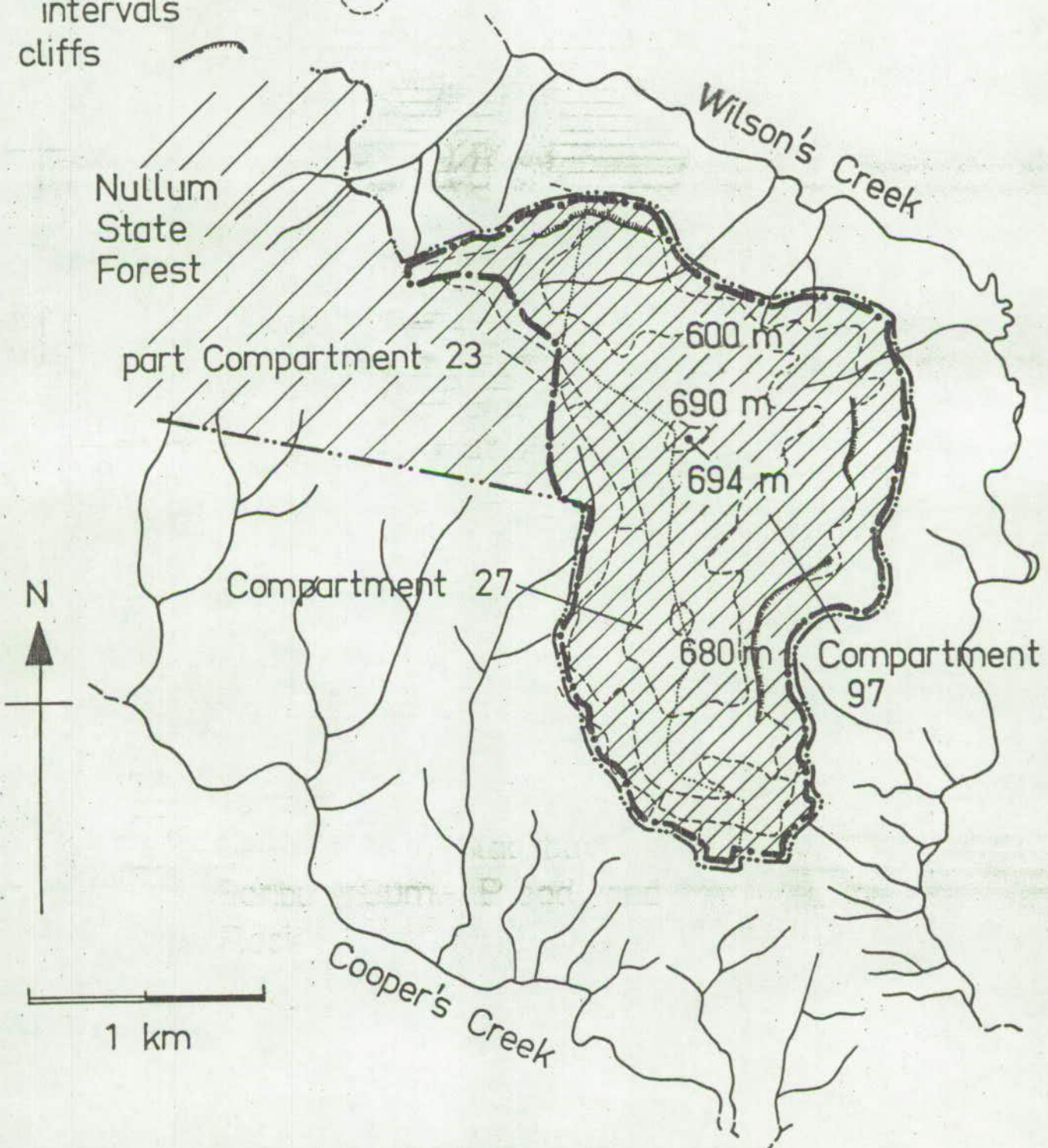
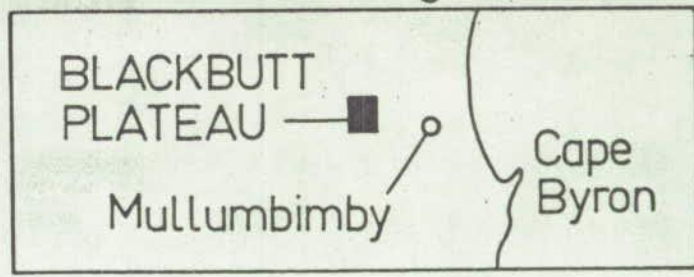
The Forestry Commission's type map for the area shows the vegetation composed mainly of wet sclerophyll types dominated by Moist Blackbutt with some Inland Brush Box and Turpentine. Dry sclerophyll forest types of New England Blackbutt and Scribbly Gum - Bloodwood together with rainforest types make up the remaining



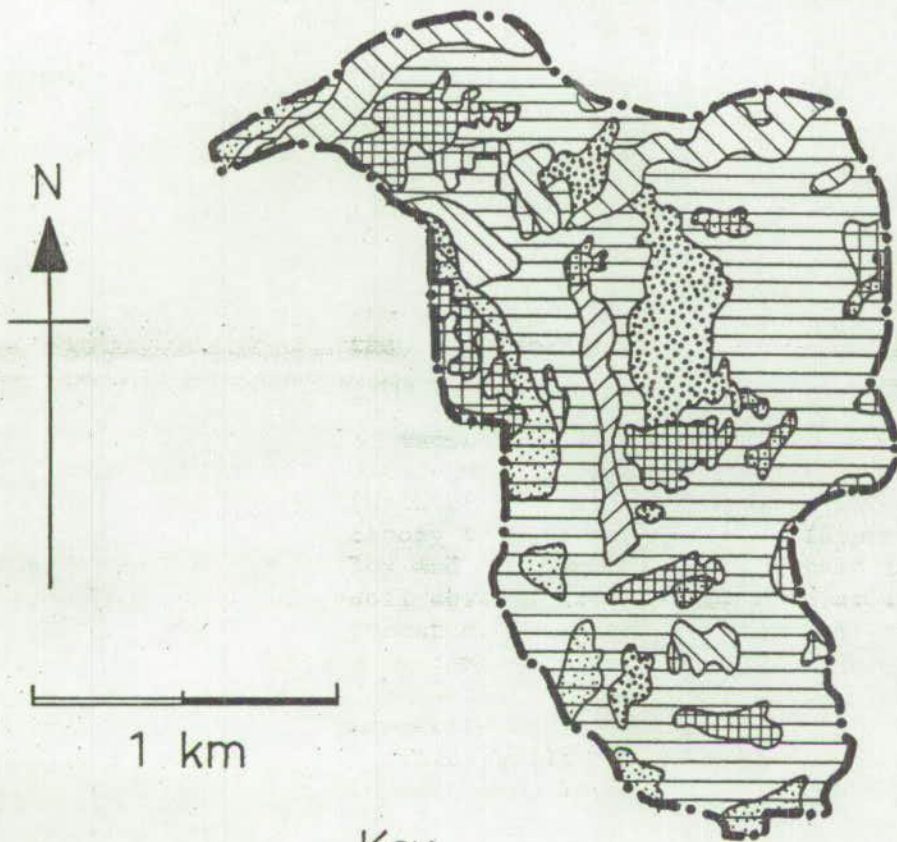
Key

Location diagram









- proposed reserve boundary
- State Forest boundary
- Compartment boundary
- contours at 100 m intervals
- cliffs



MAP 1 PROPOSED BLACKBUTT PLATEAU FLORA RESERVE



Key

	Booyong
	Myrtle
	Inland Brush Box
	<u>Moist Blackbutt</u>
	Turpentine
	New England Blackbutt
	Scribbly Gum - Bloodwood
	Rock

MAP 2 FORESTRY COMMISSION TYPING FOR THE BLACKBUTT PLATEAU AREA



small proportion of total forest cover. The rainforest types of Booyong and Myrtle would perhaps have been better classed as warm temperate types since species such as Coachwood, Crabapple, Sassafras and Corkwood are among the dominant trees although subtropical elements are also present.

No comprehensive plant species list exists for the area although a preliminary list of over 130 species has so far been compiled (see APPENDIX 1). The noteworthy abundance of Small-leaved Hazel, regarded as scarce in NSW, indicates the soil type would favour Corokia whiteana and Peach Myrtle Uromyrtus sp. The presence of either of these latter two plants would be significant as they are endemic to the Nightcap Range.

The vegetation of the Blackbutt Plateau can be summarised as dominated by tall open forest with a mixed warm temperate-subtropical mesophyll (rainforest) undustorey. The most important canopy trees are Blackbutt, Turpentine, Brush Box and Flooded Gum. In exposed areas or where soil cover is thin, tall open or lower open forest occurs with a sclerophyll undustorey. Here dominant canopy trees are New England Blackbutt and Scribbly Gum. A mixture of warm temperate and subtropical closed forest (rainforest) occupies gullies. Rock outcrops are covered in part by a layer of low shrubs dominated by Lemon Teatree.

Although some limited selective logging has occurred along the western edge of the Plateau, much of the area is undisturbed, being composed of impressive stands of veteran trees estimated to have an age of at least 300 years.

Because of the high degree of endemism known to characterise the distinctive ecological unit represented by the Blackbutt - dominated tall moist open forest on the Blackbutt Plateau, together with its age and generally undisturbed condition, the area has special significance that warrants a detailed investigation.

#### FAUNA

The avifauna is the only animal group to have received any attention on the Blackbutt Plateau although the mammals, the Mountain Brushtail Possum Trichosurus caninus and Red-legged Pademelon Thylogale stigmatica have also been identified in the area. A preliminary bird list has been compiled containing 57 species (see APPENDIX 2) the most notable of which are five species listed under Schedule 12 (January 1984) of the National Parks and Wildlife Act (1974).



These birds - the Wompoo Fruit-dove, Powerful Owl, Sooty Owl, Albert's Lyrebird and White-eared Monarch, are representative of a relatively large group of endangered and protected vertebrates (under the Act) whose ranges include or are centred on the faunally rich moist forests of north-eastern NSW. It is also considered that another 23 such species are likely to or possibly may occur on the Blackbutt Plateau (see APPENDIX 3).

The bird species total (APPENDIX 2) can be expected to double with further work, particularly during spring and summer months when migrants will have returned. Equally diverse numbers of frogs, reptiles and mammals are also likely to be recorded with appropriate investigation.

A particularly important aspect of the vertebrate habitats available on the Blackbutt Plateau is the abundance of mature or veteran trees affording nest and den sites for hollow-dwelling species. With such a concentration of hollows, arboreal hole-using mammals, cockatoos, parrots and owls are likely to be present in high densities and with most of area of Moist Blackbutt on the Nightcap and Koonyum Ranges converted to young plantations, the Plateau can be seen to have very high conservation significance in this respect.

The rock outcropping abutting the tall moist open and closed forest on the Plateau is prime breeding habitat for the endangered Albert's Lyrebird, a bird endemic to a small area of north-eastern NSW and south-eastern Queensland. During field inspections the numbers of this species were noted to be high.

#### LAND USE HISTORY

No information is available on use of the area by Aborigines prior to European settlement. The inaccessibility of the Plateau has precluded any extensive exploitation up until the present time, although approximately 40 ha on the south-western edge was lightly selectively logged by a local mill in the 1960's.

#### ECOLOGICAL AND SCIENTIFIC VALUES

General examples of the ecological and scientific values of the Blackbutt Plateau area have already been detailed in the discussions of flora and fauna.

It must be stressed that the Plateau represents the last chance for reservation of a reasonably viable undisturbed stand of Moist Blackbutt on the Nightcap and Koonyum Ranges. No other suitable area exists to act as a standard or reference against which to gauge the ecological effects of the Forestry Commission's plantation forestry, widespread in the region.

The conservation status of Moist Blackbutt throughout NSW - together with Dry Blackbutt considered the State's most important and valuable commercial forest type, is poor and the Blackbutt Plateau appears to be the most significant remaining unlogged stand between Coffs Harbour and the NSW/Queensland border.

#### PROPOSED LOGGING AND TREATMENT

The proposed logging of the Plateau can be seen essentially as a mining operation. Because of the relatively small size and even-aged veteran character of the stand, economics dictate that cutting cannot be on a sustained yield basis. Clear-felling and burning after logging to promote Blackbutt regeneration, as is intended, will not only be ecologically disastrous and significantly affect catchment values but appears to have little to recommend it in terms of future forestry needs. A treatment of this type would depend on a suitable market for small timber from thinnings to be economic and this seems unlikely, particularly when the Commission's enormous resource in plantations elsewhere in Nullum and Whian Whian State Forests is taken into account.

#### SUMMARY

A STRONG CASE EXISTS FOR RESERVATION OF THE BLACKBUTT PLATEAU AS A STATE FLORA RESERVE. IT IS CONSIDERED THAT THE ECOLOGICAL, SCIENTIFIC, CATCHMENT AND EDUCATIONAL VALUES COLLECTIVELY FAR OUTWEIGH THE SHORT TERM GAIN EXPECTED FROM THE PROPOSED LOGGING OPERATION. LOGGING WILL HAVE A SEVERE IMPACT ON THE ENVIRONMENT AND THE PROPOSED TREATMENT APPEARS TO BE PROVIDING LITTLE IN TERMS OF FUTURE ECONOMIC VALUE. IT IS SUGGESTED THAT THE FORESTRY COMMISSION COULD BENEFIT GREATLY IN TERMS OF POSITIVE PUBLIC RELATIONS IF IT WERE TO AFFORD PROTECTION TO THIS AREA.



APPENDIX 1

A PRELIMINARY LIST OF THE FLORA OF THE  
BLACKBUTT PLATEAU

Compiled principally by B. Stewart and J. Holmes, June, 1984.

Families arranged in alphabetical order.

TREES AND SHRUBS

Pteridophytes

Rough Treefern	<u>Cyathea australis</u>
Prickly Treefern	<u>C. leichardfiana</u>

Monocotyledons

Palm Lily	<u>Cordylina rubra</u>
Bangalow Palm	<u>Archontophoenix cunninghamiana</u>
Walking Stick Palm	<u>Linospadix monostachys</u>

Dicotyledons

Prickly Alyxia	<u>Alyxia ruscifolia</u>
Silver Basswood	<u>Polyscias elegans</u>
Pencil Cedar	<u>P. murray</u>
Elderberry Panax	<u>P. sambucifolius</u>
Mango Bark	<u>Canarium bayleyanum</u>
Forest Oak	<u>Casuarina torulosa</u>
Scrub Sheoak	<u>C. distyla</u>
Denhamia	<u>Denhamia pittosporoides</u>
Daisy Bush	<u>Olearia sp.</u>
Corkwood	<u>Caldcluvia paniculosa</u>
Callicoma	<u>Callicoma serratifolia</u>
Coachwood	<u>Ceratopetalum apetalum</u>
Crabapple	<u>Schizomeria ovata</u>
Davidson's Plum	<u>Davidsonia pruriens</u>
White Quandong	<u>Elaedcarpus kirtonii</u>
Blueberry Ash	<u>E. reticulatus</u>
Maidens Blush	<u>Sloanea australis</u>
Yellow Carabeen	<u>S. Woollsi</u>

Tree Heath	<u>Trochocarpa laurina</u>
Bearded Heath	<u>Leucopogon spp. (x2)</u>
Native Hydrangea	<u>Abrophyllum ornans</u>
Grey Possumwood	<u>Quintinia sieberi</u>
Pink Cherry	<u>Austrobuxus swainii</u>
Breynia	<u>Breynia oblongifolia</u>
Bleeding Heart	<u>Omalanthus populifolius</u>
Bolwarra	<u>Eupomatia laurina</u>
Grey Walnut	<u>Beilschmiedia elliptica</u>
Oliver's Sassafras	<u>Cinnamomum oliveri</u>
Jackwood	<u>Cryptocarya glaucescens</u>
Thick-leaved Laurel	<u>C. meisnerana</u>
Murrogun	<u>C. microneura</u>
Rose Maple	<u>C. rigida</u>
Rose Walnut	<u>Endiandra discolor</u>
Brown Bolly Gum,	<u>Litsea lecfeana</u>
Bolly Gum	<u>L. reticulata</u>
White Bolly Gum	<u>Neolitsea dealbata</u>
Rosewood	<u>Dysoxylum fraseranum</u>
Scentless Rosewood	<u>Synoum glandulosum</u>
Nightcap Wattle	<u>Acacia orites</u>
Prickly Moses	<u>A. ulioifolia</u>
Socketwood	<u>Daphnandra micrantha</u>
Sassafras	<u>Doryphora sassafras</u>
Veiny Wilkiea	<u>Wilkiea hugeliana</u>
Strangler Fig	<u>Ficus watkinsiana</u>
Creek Sandpaper Fig	<u>F. coronata</u>
Lilly Pilly	<u>Acmena smithii</u>
Plum Myrtle	<u>Pilidiostigma glabrum</u>
Rose Myrtle	<u>Archirhodomyrtus beekleri</u>
Turpentine	<u>Syncarpia glomulifera</u>
Blue Lilly Pilly	<u>Syzygium coolminianum</u>
Purple Cherry	<u>S. crebrenerve</u>
Red Lilly Pilly	<u>S. hodgkinsoniae</u>
Riberry	<u>S. leuhmannii</u>
Brush Box	<u>Lophostemon confertus</u>
Flooded Gum	<u>Eucalyptus grandis</u>



Scribbly Gum	<u>E. signata</u>
Coastal Blackbutt	<u>E. pilularis</u>
New England Blackbutt	<u>E. andrewsii</u>
Tallowood	<u>E. microcorys</u>
Bottlebrush	<u>Callistemon</u> sp (? <u>montanus</u> )
Lemon Teatree	<u>Leptospermum flavescens</u>
Heath Myrtle	<u>Baeckea linifolia</u> = <u>linearis</u>
Orange Thorn	<u>Citriobatus pauciflorus</u>
Hairy Pittosporum	<u>Pittosporum revolutum</u>
Sweet Pittosporum	<u>P. undulatum</u>
Crinklebush	<u>Lomatia silaifolia</u>
Prickly Ash	<u>Orites excelsa</u>
Tall Geebung	<u>Persoonia attenuata</u>
Honeysuckle Bush	<u>Triunia youngiana</u>
Hairpin Banksia	<u>Banksia collina</u>
Willow-leaf Hakea	<u>Hakea salicifolia</u>
Red Ash	<u>Alphitonia excelsa</u>
Coast Canthium	<u>Canthium coprosmoides</u>
Small Psychotria	<u>Psychotria simmondsiana</u>
Native Gardenia	<u>Randia benthamiana</u>
Common Acronychia	<u>Acronychia oblongifolia</u>
Hairy Acronychia	<u>A. pubescens</u>
Corky Acronychia	<u>A. suberosa</u>
Small-leaved Euodia	<u>Euodia</u> sp.
Saffron Heart	<u>Holfordia kendack</u>
Tall Zieria	<u>Zieria arborescens</u>
Angular Zieria	<u>Z. laevigata</u>
Native Tamarind	<u>Diploglottis australis</u>
Guioa	<u>Guioa semiglauca</u>
Steelwood	<u>Sarcopteryx stipitata</u>
Black Apple	<u>Planchonella australis</u>
Duboisia	<u>Duboisia myoporoides</u>
Small-leaved Hazelwood	<u>Symplocos bauerlenii</u>
Grass Tree	<u>Xanthorrhoea</u> sp.

CLIMBERS

Batawing Fern

Virgilay Fern

Monocotyledons

Pothos  
Native Yam  
Whip Vine  
Lawyer Vine  
Scrambling Lily  
Hairy Supplejack  
Austral Sarsaparilla  
Sweet Sarsaparilla

Pothos longipes  
Dioscorea transversa  
Flagellaria indica  
Calamus muelleri  
Geitonoplesium cymosum  
Ripogonum elseyanum  
Smilax australis  
S. glycyphylla

Dicotyledons

Melodinus  
Twining Guinea Flower  
Coast Redberry Vine  
Anchor Vine  
Burny Vine  
Native Wistaria  
Molucca Bramble  
Green-leaved Bramble  
Rose-leaf Bramble  
Five-leaf Water Vine  
Long-leaf Water Vine

Melodinus australis  
Hibbertia scandens  
Streptothamnus moorea  
Palmeria scandens  
Malaisia scandens  
Millettia megasperma  
Rubus hillii  
R. moorei  
R. rosifolius  
Cissus hypoglauca  
C. sterculifolia

EPIPHYTES

Elkhorn  
Staghorn  
Bird's-nest Fern  
Snake Orchid  
Spice Orchid  
Rock Orchid

Platynerium bifercatum  
P. superbum  
Asplenium australasicum  
Cymbidium suave  
Dendrobium gracilicaule  
D. kingianum

GROUND PLANTS

Gristle Fern  
Lacy Wedge Fern  
Pouched Coral Fern

Blechnum cartilagineum  
Lindsaea microphylla  
Gleichenia dicarpa



Umbrella Fern  
Batswing Fern  
Prickly Rasp Fern  
Maiden Hair Fern  
Green Hood Orchid  
Christmas Orchid  
Native Ginger  
Common Matrush  
Helmholtzia  
Paroo Lily  
Cutting Grass  
Sunden

Sticherus flabellatus  
Histiopteris incisa  
Doodia aspera  
Adiantum sp.  
Pterostylis daintreana  
Calanthe triplicata  
Alpinia caerulea  
Lomandra longifolia  
Helmholtzia glaberrima  
Dianella sp.  
Gahnia sp.  
Drosera sp.

## APPENDIX 2

A PRELIMINARY LIST OF THE BIRDS OF THE  
BLACKBUTT PLATEAU

Compiled by G. Holmes, D. Milledge and D. Stewart, June, 1984.

Arranged in systematic order.

Grey Goshawk	<u>Accipiter novaehollandia</u>
Wedge-tailed Eagle	<u>Aquila audax</u>
Australian Brush-turkey	<u>Alectura lathami</u>
* Wompoo Fruit-dove	<u>Ptilinopus magnificus</u>
Topknot Pigeon	<u>Lopholaimus antarcticus</u>
White-headed Pigeon	<u>Columbia leucomela</u>
Brown Cuckoo-dove	<u>Macropygia amboinensis</u>
Emerald Dove	<u>Chalcophaps indica</u>
Wonga Pigeon	<u>Leucosarcia melanoleuca</u>
Yellow-tailed Black- Cockatoo	<u>Calyptorhynchus funereus</u>
Australian King Parrot	<u>Alisteris scapularis</u>
Crimson Rosella	<u>Platycercus elegans</u>
Fantailed Cuckoo	<u>Cuculus pyrrhophanus</u>
Shining Bronze-cuckoo	<u>Chrysococcyx lucidus</u>
* Powerful Owl	<u>Ninox strenua</u>
Southern Boobook	<u>N. novae seelandiae</u>
* Sooty Owl	<u>Tyto tenebricosa</u>
Tawny Frogmouth	<u>Podargus strigoides</u>
Laughing Kookaburra	<u>Dacelo novaeguineae</u>
* Albert's Lyrebird	<u>Menura alberti</u>
Varied Triller	<u>Lalage leucomela</u>
White's Thrush	<u>Zoothera dauma</u>
Rose Robin	<u>Petroica rosea</u>
Eastern Yellow Robin	<u>Eopsaltria australis</u>
Pale-yellow Robin	<u>Tregellasia capito</u>
Golden Whistler	<u>Pachycephala pectoralis</u>
Little Shrike-thrush	<u>Colluricincla megarhyncha</u>
Grey Shrike-thrush	<u>C. harmonica</u>



* White-eared Monarch	<u>Monarcha leucotis</u>
Rufous Fantail	<u>Rhipidura rufifrons</u>
Grey Fantail	<u>R. fuliginosa</u>
Logrunner	<u>Orthonyx temminckii</u>
Eastern Whipbird	<u>Psophodes olivaceus</u>
Variiegated Fairy-wren	<u>Malurus lamberti</u>
Large-billed Scrubwren	<u>Sericornis magnirostris</u>
Yellow-throated Scrubwren	<u>S. citreogularis</u>
White-browed Scrubwren	<u>S. frontalis</u>
Brown Gerygone	<u>Gerygone mouki</u>
Brown Thornbill	<u>Acanthiza pusilla</u>
Striated Thornbill	<u>A. lineata</u>
White-throated Tree- creeper	<u>Climacteris leucophaea</u>
Red-browed Tree- creeper	<u>C. erythropis</u>
Lewin's Honeyeater	<u>Meliphaga lewinii</u>
White-naped Honeyeater	<u>Melithreptus lunatus</u>
White-checked Honeyeater	<u>Phylidonyris nigra</u>
Eastern Spinebill	<u>Acanthorhynchus tenuirostris</u>
Scarlet Honeyeater	<u>Myzomela sanguinolenta</u>
Misteltoe bird	<u>Dicaeum hirundinaceum</u>
Spotted Pardalote	<u>Pardalofus punctatus</u>
Striated Pardalote	<u>P. striatus</u>
Silvereye	<u>Zosterops lateralis</u>
Olive-backed Oriole	<u>Oriolus sagittatus</u>
Satin Bowerbird	<u>Ptilonorhynchus violaceus</u>
Green Catbird	<u>Ailuroedus crassirostris</u>
Paradis Riflebird	<u>Ptiloris paradiseus</u>
Gray Butcherbird	<u>Cracticus torquatus</u>
Pied Currawong	<u>Strepera graculina</u>

total 57 species

- \* species listed as Vulnerable and Rare, Part 2 of Schedule 12 - Endangered Fauna (1st January, 1984), National Parks and Wildlife Act (1974).

APPENDIX 3

ADDITIONAL ENDANGERED OR PROTECTED VERTEBRATES  
LIKELY OR POSSIBLE OCCURRENCES ON THE  
BLACKBUTT PLATEAU

As listed under Schedule 12 (1st January 1984) of  
the National Parks and Wildlife Act (1974).

Part 2 Vulnerable and Rare Fauna

* Parma Wallaby	<u>Macropus parma</u>
Black-striped Wallaby	<u>M. dorsalis</u>
* Major skink	<u>Ergernia frerei</u>
* Dwarf Crowned Snake	<u>Cacophis krefftii</u>
* Pacific Baza	<u>Aviceda subcristata</u>
Red Goshawk	<u>Erythrotriorchis radiatus</u>
* Peregrine Falcon	<u>Falco peregrinus</u>
Black-breasted Button- quail	<u>Turnix melanogaster</u>
Bush Hen	<u>Gallinula olivacea</u>
Masked Owl	<u>Tyto novaehollandiae</u>
* Rufus Scrub-bird	<u>Africhornis rufescens</u>
* Yellow-eyed Cuckoo-shrike	<u>Coracina lineata</u>

Part 3 Threatened Fauna

Long-nosed Potoroo	<u>Potorous tridactylus</u>
* Southern Angle-headed Dragon	<u>Gonocephalus spinipes</u>
* Stephen's Banded Snake	<u>Hoplocephalus stephensi</u>
Coral Snake	<u>Simoselaps australis</u>
Marbled Frogmouth	<u>Podargus ocellatus</u>

Part 4 Fauna in Imminent Danger of Extinction

Double-eyed Fig-parrot	<u>Psittaculirostris diophalma</u>
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Schedule 12 A Protected Amphibians

* Pearsons' Green Tree Frog	<u>Litoria pearsoniana</u>
* Pouched Frog	<u>Assa darlingtoni</u>
* Loveridge's Frog	<u>Kyarranus loveridgei</u>
Sphagnum Frog	<u>K. sphagnicolus</u>
* Fletcher's Frog	<u>Lechriodus fletcheri</u>

total 23 species

\* likely to occur on the Blackbutt Plateau.