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FROM BUTLER'S GORGE TO GORDON DAM AT THE KNOB

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South of Clark Dam, following a power transmission line and then a rough Bombardier track to First Bay (Guelph Basin), the vegetation is predominantly of open-forest communities dominated by *Eucalypt* species except within the sheltered depressions where patches of *Nothofagus* and *Atherosperma* extend down from Mt. Hobhouse.

From First Bay to Long Bay the intermittent swamp area is dominated by *Gymnoschoenus sphaerocephalus*, depending on the edaphic condition and drainage, *Eucalypt* woodland with an open shrubland mosaic of *Epacridaceae*, *Compositae* and *Protaceae*. A sparse cover of grasses comprises the vegetation of rocky outcrops and stony soil humps within the plain towards the Gordon River extending south-westerly for about three kilometres past Long Bay. In general the area appears to have been infrequently burned and individual *Athrotaxis cupressoides* and *Milligania* species occur occasionally within wet areas.

About two kilometres south of Long Bay the Bombardier track bisects for half a kilometre a closed-canopy *Eucalypt* forest leading down a steep slope in a straight line towards the Gordon River. Appreciable erosion was evident within the deep soil strata. For the next four kilometres the track follows the river through a lightly forested *Eucalypt* woodland with an abundance of *Callistemon viridiflorus* on its edges. About five kilometres south-east of Mt. King William III an airstrip had been constructed on a quartzite eminence. The adjoining creek was bridged with trees felled on the embankment parallel to the stream now causing through the log jam thus created hydrological changes adversely affecting the surrounding vegetation and causing additional siltation on the low area through soil washouts around the stream obstruction.

From the south end of the airstrip the track continues for five kilometres through a watershed dominated with shrubland and a prime example of successive

progression from heath-sedgeland to rainforest, the inner rim dominated by *Myrtaceae* such as *Melaleuca* and *Leptospermum* and the rainforest including *Nothofagus cunninghamii*, *Atherosperma* and *Richea pandanifolia*.

Then on a quartzite ridge at 500 metres elevation another airstrip has been started but not completed. Descending towards the Gell River an abandoned campsite can be found.

The Bombardier track continues in a westerly direction through a one kilometre section of rain forest using a creek bed to descend to an eastern branch of the Denison River where there is evidence of a recent bushfire. The vehicular track continues along the Denison Valley to a low ridge; several attempts to branch off towards the river have been foiled by the conditions of the terrain and the size and density of the vegetation which is predominantly *Leptospermum scoparium* and *L. lanigerum* along the river flats.

The northern plateau of The Prince of Wales Range which lies west of the Denison River is vegetated mainly with Buttongrass with isolated patches of low shrubs re-establishing themselves over formerly burned areas in association with *Nothofagus cunninghamii* and *Athrotaxis selaginoides*. Along the rest of the range, mainly on the western slopes, occasional burnt skeletons of *Athrotaxis* are conspicuous but without any evidence of regeneration. The entire high ridge area of The Prince of Wales Range is covered by *Gymnoschoenus* which excludes bolster plant communities except within a limited area on the northern end of Mt. Humboldt. Here, within the broken surfaces of the massif, open heath-herb predominates with low and prostrate shrubbery alternating with bare ground within the wind-gaps cutting across the ridges in an east-west direction.

The high alpine vegetation within the Prince of Wales Range is limited in its extent mainly in the north to the Diamond Peak area and in the south to the Mt. Humboldt massif. In addition to the endemic flora (as tabulated in separate appendix) Dr. S.J. Jarman's discovery of a new *Epacris* on Mt. Humboldt renders this area highly significant as from my field observation this *Epacris* is limited in its distribution to the high quartzite bluffs and the adjoining fjældmark community.

Below the cliff base line the vegetative cover varies considerably - from dwarfed *Nothofagus cunninghamii* and *Eucryphia milliganii* as dominants of unburnt areas to shrubland *Olearia*, *Orites* and *Monotoca* of various ages depending on the frequency and period elapsed since the last fires in the respective areas.

The long, low southern ridge (520 metres elevation) between Mt. Humboldt and the Denison Gorge is dominated along its crest by *Leptospermum* and *Melaleuca* species interspersed with *Banksia* and an understorey of *Bauera*; in addition *Gahnia grandis* is found in deep soil areas and old stands of *Gymnoschoenus* on steep slopes with little soil cover.

Below 400 metres elevation there is a mixture of *Eucalypts*, *Nothofagus*, *Eucryphia*, *Atherosperma* and the occasional immature *Phyllocladus*. The creek gullies are usually dominated by *Anodopetalum biglandulosum* and sometimes with *Pomaderris aptala* and old mature trees of *Leptospermum* and *Melaleuca*.

Then at 280 metres elevation and downwards to the Denison River flats a more uniform rainforest pattern is established, dominated by *Nothofagus cunninghamii*

Eucryphia lucida, *Atherosperma moschatum* with an understorey of *Orites diversifolia*, *Lomatia polymorpha*, *Anopterus glandulosus*, and *Dicksonia antarctica*; ground cover consists of *Blechnum wattsii*, *B. nudum* and *Histiopteris incisa*. *Microsorium diversifolium* and *Hymenophyllum* species are abundant on trees; common on embankments are *Oxalia lactea* and *Oreomyrrhis ciliata*, and on rocky embankments *Epilobium perpusillum*.

At the southern end of The Prince of Wales Range, and straddling the Denison River, is the Truchanas Huon Pine Reserve. The only mature Huon Pines on the two and a half kilometre stretch of the east bank had been cut down and discarded wood rollers and slip-marks on the ground indicated that logs had been transported from further afield to the river within the reserve. The absence of mature pines on the west bank led to the conclusion that logging had taken place there also. (This logging was carried out before the reserve was gazetted - Editor).

Ascending the Hamilton Range from the Denison Gorge through dense rain-forest the vegetation changes abruptly to shrubland dominated by *Eucalypts*, *Leptospermum* and *Banksia*. From 280 metre elevation upwards and along the ridges *Gymnoschoenus* predominates. Stands of stunted *Nothofagus cunninghamii* north of Mt. Robert had been burned, but minimal soil erosion had occurred because abundant herbaceous vegetation such as *Senecio pectinatus* and *Rubus gunnianus* was present except where the topsoil had eroded or been removed by bulldozers in connection with the Gordon Dam construction activities.

DISTRIBUTION OF FLORA

Abundant (A)	Gymnosc- Wood	Rain	Gymnosc- Alpine
Common (C)	hoenus Land	Forest	hoenus
Occasional (O)	Heath-		Heath-
Rare (R)	Herb		Herb
	Shrubland		Shrubland
	(lowland)		(highland)

BUTLER'S GORGE

TETRATHECA PROCUMBENS	X(A)
BEDFORDIA SALICINA	X(A)
BEDFORDIA LINEARIS	X(A)
CYATHODES PARVIFOLIA	X(A)
WESTRINGIA ANGUSTIFOLIA	X(C)
TELOPEA TRUNCATA	X(O)
RUBUS GUNNIANUS	X(C)

LAKE KING WILLIAM/GUELPH BASIN, FIRST BAY TO LONG BAY

MONOTOCA SUBMUTICA	X(O)
EUCRYPHIA LUCIDA	X(O)

Gymnosc- hoenus Heath- Herb Shrubland (lowland)	Wood Land	Rain Forest	Gymnosc- hoenus Heath- Herb Shrubland (highland)	Alpine
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LAKE KING WILLIAM/GUELPH BASIN, FIRST BAY TO LONG BAY (CONT.)

ATHROTAXIS CUPRESSOIDES	X(R)			
CYATHODES PARVIFOLIA		X(C)		
TELOPEA TRUNCATA		X(O)	X(O)	
EPACRIS GUNNII	X(C)	X(C)		
CALLISTEMON VIRIDIFLORUS	X(A)	X(C)		
LOMATIA TINCTORIA		X(A)		
LOMATIA POLYMORPHA		X(R)	X(O)	
TETRATHECA PROCUMBENS		X(O)		
RUBUS GUNNIANUS	X(A)	X(C)		
RICHEA PROCERA		X(O)		
RICHEA GUNNII	X(R)			
MILLIGANIA SP.	X(R)			

LONG BAY—GORDON RIVER—5 KM SOUTH TO GELL RIVER

ORITES REVOLUTA	X(O)	X(R)		
ORITES DIVERSIFOLIA	X(O)	X(C)	X(C)	
LOMATIA POLYMORPHA	X(R)	X(R)	X(O)	
ANOPTERUS GLANDULOSUS			X(O)	
ANODOPETALUM BIGLANDULOSUM			X(O)	
MONOTOCA SUBMUTICA		X(O)	X(O)	
HAKEA EPIGLOTTIS	X(R)	X(R)		
RUBUS GUNNIANUS	X(R)	X(R)		
EUCRYPHIA LUCIDA			X(O)	
CALLISTEMON VIRIDIFLORUS	X(C)	X(C)		
RICHEA PANDANIFOLIA		X(R)	X(O)	

GELL RIVER—EAST BRANCH DENISON RIVER—UPPER DENISON RIVER

PHYLLOCLADUS ASPLENIIFOLIUS		X(R)	X(R)	
ARISTOTELIA PENDUNCULARIS			X(R)	
RUBUS GUNNIANUS	X(C)	X(C)		
ANOPTERUS GLANDULOSUS			X(R)	
ANODOPETALUM BIGLANDULOSUM			X(C)	
EUCRYPHIA LUCIDA			X(O)	
BAECKEA LEPTOCAULIS	X(C)			
TELOPEA TRUNCATA		X(R)		
CYATHODES PARVIFOLIA		X(O)		
TROCHOCARPA THYMIFOLIA		X(O)	X(O)	

Gymnosc- hoenus Heath- Herb Shrubland (lowland)	Wood Land	Rain Forest	Gymnosc- hoenus Heath- Herb Shrubland (highland)	Alpine
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GELL RIVER - EAST BRANCH DENISON RIVER - UPPER DENISON RIVER (CONT.)

MONOTOCA SUBMUTICA	X(O)	X(O)		
EUPHRASIA DIEMENICA	X(R)			
AGASTACHYS ODORATA	X(O)	X(O)		
CENARRHENES NITIDA		X(R)		
ORITES DIVERSIFOLIA		X(C)	X(C)	
CALOROPUS ELONGATUS	X(C)	X(C)		

PRINCE OF WALES RANGE

PHYLLOCLADUS ASPLENIIFOLIUS		X(R)	X(R)	
ATHROTAXIS SELAGINOIDES (EAST PLATEAU ONLY)				X(O)
ANEMONE CRASSIFOLIA			X(A)	X(A)
ARISTOTELIA PEDUNCULARIS				X(R)
RUBUS GUNNIANUS		X(A)	X(A)	X(A)
ANODOPETALUM BIGLANDULOSUM			X(A)	X(O)
ANOPTERUS GLANDULOSUS			X(R)	
TETRACARPAEA TASMANICA		X(O)	X(R)	X(R)
EUCRYPHIA LUCIDA		X(R)	X(O)	
EUCRYPHIA MILLIGANII			X(C)	X(A)
BAECKEA LEPTOCAULIS			X(A)	X(C)
EUCALYPTUS VERNICOSA			X(C)	X(A)
DIPLASPIS CORDIFOLIA				X(R)
DICHOSCIADIUM RANUNCULACEUM VAR. TASMANICA				X(R)
ACTINOTUS MOOREI			X(C)	X(C)
OLEARIA PERSOONIOIDES			X(O)	
OLEARIA TASMANICA			X(O)	X(C)
OLEARIA LEDIFOLIA				X(O)
CELMISIA SAXIFRAGA			X(R)	X(R)
HELICHRYSUM PUMILUM			X(A)	X(A)
HELICHRYSUM BACKHOUSII				X(C)
ABROTANELLA SCAPIGERA				X(R)
FORSTERA BELLIDIFOLIA			X(O)	X(O)
GAULTHERIA HISPIDA				X(R)
TELOPEA TRUNCATA			X(R)	
CYATHODES PETIOLARIS				X(C)
CYATHODES PARVIFOLIA		X(C)	X(C)	X(C)

Gymnosc- hoenus Heath- Herb Shrubland (lowland)	Wood Land	Rain Forest	Gymnosc- hoenus Heath- Herb Shrubland (highland)	Alpine
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PRINCE OF WALES RANGE (CONT')

TROCHOCARPA THYMIFOLIA	X(R)	X(R)	X(R)	
MONOTOCA SUBMUTICA	X(C)	X(O)	X(C)	
ARCHERIA SERPYLLIFOLIA				X(R)
PRIONOTES CERINTHOIDES	X(A)	X(A)	X(R)	X(A)
RICHEA SPRENGELIOIDES				X(R)
RICHEA MILLIGANII			X(R)	X(R)
RICHEA SCOPARIA			X(R)	X(R)
RICHEA PANDANIFOLIA	X(R)	X(R)	X(R)	
DRACOPHYLLUM MILLIGANII			X(A)	X(A)
EUPHRASIA DIEMENICA			X(A)	X(A)
AGASTACHYS ODORATA	X(A)		X(A)	X(A)
CENARRHENES NITIDA	X(C)	X(C)	X(C)	X(O)
PERSOONIA GUNNII	X(O)		X(A)	X(A)
ORITES DIVERSIFOLIA	X(A)	X(A)	X(C)	X(O)
PIMELEA MILLIGANII				X(R)
EXOCARPOS HUMIFUSUS			X(R)	X(R)
CAMPYNEMA LINEARE			X(C)	X(C)
BLANDFORDIA PUNICEA	X(C)	X(R)	X(A)	X(A)
ISOPHYSIS TASMANICA			X(A)	X(A)
CALOROPUS ELONGATUS	X(C)		X(O)	
APTEROPTERUS APPLANATA				
DIAMOND PK AREA ONLY				X(C)
GLEICHENIA ABSCIDA (LOCALISED SOUTH OF MT HUMBOLDT)				X(A)
MILLIGANIA DENSIFLORA				X(C)
MILLIGANIA STYLOSA (MT HUMBOLDT ONLY)				X(R)
OREOBOLUS ACUTIFOLIUS (LOCALISED SOUTH OF MT HUMBOLDT)			X(O)	X(R)
EPACRIS SP. (NEW ENDEMIC DISCOVERY 1978 MT HUMBOLDT ONLY)				X(A)

DENISON RIVER

PHYLLOCLADUS ASPLENIIFOLIUS	X(O)	X(O)	
DACRYDIUM FRANKLINII		X(A)	
ARISTOTELIA PEDUNCULARIS	X(R)	X(R)	

Gymnosc- hoenus Heath- Herb Shrubland (lowland)	Wood land	Rain Forest	Gymnosc- hoenus Heath- Herb Shrubland (highland)	Alpine
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DENISON RIVER (CONT.)

ANODOPETALUM BIGLANDULOSUM		X(O)	X(A)	
ANOPTERUS GLANDULOSUS		X(A)	X(A)	
EUCRYPHIA LUCIDA		X(C)	X(A)	
LEPTOSPERMUM RIPARIUM (ON RIVER BANKS)	X(A)			
LEPTOSPERMUM GLAUDESCENS		X(A)	X(A)	
EPILOBIUM PERPUSILLUM (ON RIVER BANKS)	X(O)			
OREOMYRRHIS SP. (NEW DISCOVERY 1978 ON RIVER BANKS)			X(O)	
PSUDOPANAX GUNNII			X(R)	
CYATHODES PARVIFOLIA		X(O)	X(O)	
TROPCHOCARPA CUNNINGHAMII		X(A)	X(A)	
MONOTOCA SUBMUTICA		X(A)	X(A)	
ARCHERIA ERIOCARPA		X(A)	X(A)	
ARCHERIA HIRTELLA		X(C)	X(A)	
PRIONOTES CERINTHOIDES		X(A)	X(A)	
RICHEA PANDANIFOLIA		X(O)	X(O)	
AGASTACHYS ODORATA		X(A)	X(O)	
CENARRHENES NITIDA		X(A)	X(A)	
ORITES DIVERSIFOLIA		X(A)	X(A)	
BLANDFORDIA PUNICEA		X(C)	X(O)	
CALOROPUS ELONGATUS		X(A)	X(O)	

HAMILTON RANGE

ANEMONE CRASSIFOLIA				X(O)	X(O)
PHYLLOCLADUS ASPLENIIFOLIUS		X(R)	X(R)		
ARISTOTELIA PEDUNCULARIS		X(R)	X(R)		X(R)
RUBUS GUNNIANUS	X(O)			X(R)	X(R)
ANODOPETALUM BIGLANDULOSUM		X(R)	X(O)	X(R)	X(R)
ANOPTERUS GLANDULOSUS		X(R)	X(R)		
TETRACARPAEA TASMANICA				X(R)	X(R)
EUCRYPHIA LUCIDA		X(R)	X(O)		
EUCRYPHIA MILLIGANII				X(O)	X(O)
BAECKEA LEPTOCAULIS	X(A)			X(A)	X(A)
LEPTOSPERMUM GLAUDESCENS	X(O)	X(O)	X(R)	X(R)	X(R)
EUCALYPTUS VERNICOSA					X(O)

Gymnosc- hoenus Heath- Herb Shrubland (lowland)	Wood land	Rain Forest	Gymnosc- hoenus Heath- Herb Shrubland (highland)	Alpine
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HAMILTON RANGE (CONT')

DIPLASPIS CORDIFOLIA					X(R)
OLEARIA TASMANICA		X(R)		X(R)	X(R)
HELICHRYSUM PUMILUM	X(C)			X(C)	X(C)
HELICHRYSUM BACKHOUSII					X(R)
FORSTERA BELLIDIFOLIA					X(O)
CYATHODES PETIOLARIS					X(O)
CYATHODES PARVIFOLIA	X(C)	X(C)	X(R)	X(O)	X(R)
TROCHOCARPA THYMIFOLIA		X(O)	X(C)		
MONOTOCA SUBMUTICA	X(A)	X(A)	X(O)	X(C)	X(O)
EPACRIS CORYMBIFLORA	X(C) (SOUTH HAMILTONS ONLY)				
ARCHERIA ERIOCARPA	X(R)	X(R)			
ARCHERIA HIRTELLA	X(R)	X(O)	X(O)		
PRIONOTES CERINTHOIDES		X(O)	X(C)	X(R)	X(R)
RICHEA SCOPARIA				X(R)	X(R)
DRACOPHYLLUM MILLIGANII				X(C)	X(C)
EUPHRASIA DIEMENICA	X(C)			X(C)	X(C)
EUPHRASIA KINGII	X(O) (SOUTH HAMILTONS ONLY)				
AGASTACHYS ODORATA	X(C)	X(C)	X(R)	X(C)	X(O)
CENARRHENES NITIDA	X(C)	X(C)	X(C)	X(C)	X(O)
PERSOONIA GUNNII	X(C)	X(C)		X(A)	X(A)
ORITES DIVERSIFOLIA	X(C)	X(C)	X(O)	X(C)	X(O)
EXOCARPOS HUMIFUSUS	X(R)			X(R)	X(R)
MILLIGANIA DENSIFLORA					X(R)
MILLIGANIA LONGIFOLIA					
(CLIFFS GORDON GORGE BELOW DAM)					
BLANDFORDIA PUNICEA	X(A)	X(C)	X(R)	X(A)	X(A)
ISOPHYSIS TASMANICA	X(C)			X(A)	X(A)
CAMPYNEMA LINEARE				X(R)	X(R)
CALOROPUS ELONGATUS	X(C)	X(A)	X(O)		
GLEICHENIA ABSCIDA	X(C) (LOCALISED SOUTH HAMILTONS)				