INTRODUCTION

The Mt Cameron West Aboriginal Site (144° 36'E, 40° 52'S) comprises 524 ha of land formerly included in the Woolnorth Estate on the northwestern tip of Tasmania. The site contains aboriginal rock engravings and a stone quarry of considerable archaeological significance, as well as an extensive area of middens. Hubble (1951) briefly described the coastal vegetation in the far northwest of Tasmania, and Jackson (pers. comm.) gives a detailed description of the vegetation of the Swan Bay Plain to the north of the Reserve. The following is the first account of the vegetation which occurs in the vicinity of Mt Cameron West.

THE PHYSICAL ENVIRONMENT

Climate

The climate of the area is temperate maritime and is determined largely by the transit of high and low pressure cells from the Indian and Southern Oceans (Bureau of Meteorology 1973). Prevailing winds blow mainly from two directions through Bass Strait; 270° ± 45° and 56° ± 56°. Temperature and rainfall data are not available for the study area, but conditions are probably approximated by Marrawah, Stanley and Cape Grim (table 1). The rainfall has a weak symmetrical winter maximum distribution. Summers are mild and cloudy; winters are cool and wet.

Geology and Geomorphology

Mt Cameron West dominates a low coastal plain of Quaternary alluvium and calcareous sand dunes. The mountain is composed of tertiary alkali basalt and rises to 168 m at the southern end of the reserve. Outcrops of Precambrian metamorphic rock form rocky headlands at the northern end of the beach at Two Mile Sand. The aboriginal carvings are at the northern end of the beach in local outcrops of soft calcareous sandstone (Williams and Turner 1973, Sutherland 1972).

The coastal plain is a system of dune ridges parallel to the shore. This system is transgressed by several large parabolic or blowout dunes originating from wind erosion of previously stabilised dunes. Areas of iron concretion hardpan (coffee rock) are exposed by the removal of the overlying sand.

A number of dune barred lagoons occur in the area, and creeks flowing from two of these dissect the dune ridges and run to the sea. The larger lagoons carry extensive beds of macrophytic vegetation, and appear to provide permanent (brackish) water.
Vegetation of Mt Cameron West

TABLE 1

Climatic data for selected stations near the Study Area

A = precipitation (mm); B = No. of raindays; C = mean daily maximum temperature (°C); D = mean daily minimum temperature (°C).

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Harrawah (144° 43'E, 40° 55'S)

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Stanley (145° 17'E, 40° 46'S)

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Cape Grim (144° 44'E, 40° 44'S)

Soils

The soils are coarse textured, marine and aeolian sand (Nicolls and Dimmock 1965). Ground water podzols occur on the poorly drained wet sites behind the dune ridge system. The soils here are strongly leached and acid, with an A horizon of siliceous sand and organic matter. Podzols and moderately leached calcareous sands are found on the better drained sites on the lower slopes of Mt Cameron West and on the tops and sides of the stabilised dunes (Hubbell 1951). Loams are developed on Mt Cameron West. These loams are derived from basalt with the addition of aeolian sands. Areas of rocky scree occur on the steep southern slopes of Mt Cameron West.

THE VEGETATION

The plant communities and a checklist of species occurring in the reserve are given in the appendix. Naming of the communities follows the structural system outlined by Specht (1970), except for sedgeland-heath, a composite community in which heath and sedge species are co-dominant.

Nine major vegetation mapping units are recognisable within the reserve area (fig 1): 1. vegetation of the littoral beach and mobile sand, 2. vegetation of the littoral rocky headland and boulder beach, 3. vegetation of the partially stabilised dunes, 4. vegetation of the stabilised dunes and slopes, 5. vegetation of the scree slopes, 6. shrubland, 7. woodland, 8. aquatic, 9. acid sedgeland-heath.

1. Littoral beach and mobile sand

Erosion of the dunes has extended the area of the beach, by the mobilisation of sand for 2-3 km inland (plate 1). Except for the occasional pioneering plants of Cakile edentula near the foreshore the beach and inland blow areas are devoid of vegetation.

Isolated pockets of vegetation, and the remains of the dead shrubs occurring within the transgressive dunes indicate that the dunes and swales previously supported dense thickets of Acacia atropurpurea and Melaleuca ericifolia respectively. In his account of
FIG. 1.- Mt Cameron West Aboriginal Site: Vegetation.
Vegetation of Mt Cameron West

the aboriginal rock carvings at Mt Cameron West, Moston (1934) noted... "cattle breaking down the dunes and allowing the wind free play have destroyed the face of the country". Patches of dead Ammophila on the fringe of the mobile sands indicate past attempts at stabilisation.

2. Littoral rocky headland and boulder beach

Halophytic succulents from the families Ficoideae and Chenopodiaceae form the littoral vegetation on the rocky shores: open herbfields dominated by Salsola greggii and Distichis australis occur in the lower salt spray zone, which may be subject to inundation. At higher levels of the salt spray zone the same species occupy the ground layer in open grasslands of Stipa tenuifolia.

3. Partially stabilised dunes

The stabilised dune ridge system on the coastal plain appears to have been heavily grazed and frequently burnt, presumably to maintain a green pick for cattle, and to prevent shrubland encroachment. Sites of incipient deflation and terraces on the sides of the steeper dunes have resulted from grazing and mechanical damage by cattle.

3.1 Foredunes.- The coastal side of the vegetated foredunes supports grasslands of Ammophila arenaria (marram) and Festuca littoralis. Isolated tufts of Spinifex hirsutus occur. Extensive growth of this grass was observed. At the base of the foredunes, creeping succulents such as Carpobrotus rossii and herbs like Acacia novae-zealandiae intermingle with the grasses. The open grasslands of Ammophila extend well back from the frontal dunes in areas which have been previously destabilised. The lee sides of stable dunes carry a tussock grassland of Poa polystachya interspersed with Salsola ruderis.

Caroec quadrihovata sedgelands occupy localised sites of fresh water seepage at the base of the dune front where salinity is reduced. This species is replaced by Caroec appressa on a few low-lying sites flanking creek outflows and by Bauerea tetragona or Nestia tetraphyllae in more acid situations.

3.2 Rear dunes.- The older dune ridge system behind the foredunes supports a mosaic of Poa grassland, Pteridium (bracken) fernland and sedgelands dominated by Lomandra longifolia, Lepidosperma gladiatum and Salsola ruderis (plate 1). Fire, grazing, microtopography, drainage and the degree of calcareous deposition all affect the distribution of these communities. The presence of shrub skeletons and the vegetation on stabilised dunes at the northern end of the reserve suggest that in the absence of fire, the grassland-sedgeland associations would be replaced by shrublands of Acacia mangium, Myoporum dissilare and Correa lixiiouata near the coast and Melaleuca eriostachia or Lepidosperma laevigatum, respectively in poorly and well-drained situations. Brown, Shepherd & Jackson (unpub), suggest that in coastal areas subject to grazing, the seral Pteridium fernlands maintained by frequent firing are eventually replaced by grassland and sedgelands dominated by Poa and Lomandra. A succession
3.3 Destabilised shrublands.- Patches of shrubland are scattered through the sand-drift area.

The patches arise in two ways. Some are the result of mounds of sand sufficiently bound by dead fibrous root and rhizome material to be reconsolidated by abrasion resistant succulents and shrubs; other patches appear to be relic shrublands remaining after erosion of surrounding areas.

The beach sands overlying the sandstone near the aboriginal rock carvings support a low herbfield. Olearia leptophyllea and Calocephalus brownii over mats of Carpobrotus and Tetragonia implecta. The mats effectively bind the sand, but their distribution is patchy and sites of potential erosion are evident.

4. Stabilised dunes and slopes

4.1 Dune herbfields.- Grasslands and herbfields occur on the stabilised dunes toward the northern end of the reserve. Grasslands of Aipa camphyllacea - Vulpia bromoides and herbfields of Solanogyne bellidoides - Plantago bellidoides occupy the freely draining sands of the tops and lee sides of dunes. These grasslands are heavily grazed by native herbivores. Low lying flat areas are covered by closed grasslands of Distichlis distichophylla and closed-herbfields of Kambition ealygavoids. The swale hollows of impeded drainage carry the above associations at the edges of ephemeral lagoons.

4.2 Mt Cameron West and foothills.- The soils on the slopes of Mt Cameron and its associated foothills are more fertile than those of the coast plain. The vegetation is better developed and wind erosion is not a problem. However slumps and terracettes occur on the steeper slopes (plate 2). The predominant vegetation is Poa grassland, Pteridium fernland and Lomandra tussock-sedgegland. Isolated trees of Eucalyptus ovata and Banksia maritima dot the landscape suggesting that the original cover of the protected slopes would have been a Eucalyptus ovata (E. obliqua) woodland, with a heath or scrub storey, whilst the lower slopes, and regions of poor drainage would have been occupied by Melaleuca ericifolia closed-scrub. The high incidence of fire, the introduction of pasture species, and the preference of cattle for any regenerating shrub and herb species have resulted in the promotion of Lomandra tussocks and bracken together with a high proportion of adventive species, at the expense of the native shrubs. No regenerating eucalypts or Banksia were observed in the area. A secondary effect of grazing has been the establishment of extensive closed thickets of Ulaga europoeae (gorse).
Vegetation of Mt Cameron West

5. Scree slopes
The steep southern slopes of Mt Cameron West support a mosaic of rocky scree, Poa tussock, Pteridium, and small thickets of Melaleuca erioides and Leptospermum laevigatum. Parts of the scree slopes are covered by dense hanging mats of Tetragonia implexicaule, although most of the lower parts of the scree have been invaded by introduced and native species such as nettles, thistles and bracken (plate 2).

6. Shrubland
Closed-scrub is found on the stabilised frontal dunes. Acacia sophorae, Myoporum inviolare, Correa alba, C. bailloniana and Leucopogon parviflorus predominate (plate 4). These species are replaced inland by Melaleuca erioides which forms dense flat-topped, closed-scrub vegetation (plate 1). The Melaleuca erioides occurs on the slopes of Mt Cameron West, on the exposed and lee slopes of dunes, and on the low-lying, poorly-drained flats surrounding the lagoons. On areas of better drainage, between the foothills of Mt Cameron West and the lagoons, Melaleuca is replaced by a closed-scrub of Leptospermum laevigatum. This species appears to be actively colonising fire-sere areas of bracken.

Stunted and low-lying E. viminalis are scattered through both these shrublands. The presence of dead stags and stumps within the thickets suggests that a more extensive low-open forest of this species may once have occurred in the area.

7. Woodland
Eucalyptus woodlands are poorly represented in the reserve but are present along the eastern boundary. The region near the south-eastern corner carries an open-woodland of E. viminalis - E. ovata over a Poa grassland and Isopogon tussock understorey. E. obliqua occurs in the same woodland, but is absent from the reserve area. A small patch of E. viminalis woodland over a mixture of bracken, heath and sedges occurs on the lower slopes of the eastern foothills of Mt Cameron West. These slopes grade onto flats carrying a mosaic of sedgeland-heath, and low open (mallee) woodland of E. ovata.

8. Aquatic

8.1 Ephemeral lagoons.- The shallow depressions of the dune swales are intermittently flooded, and carry a zoned series of plant associations which reflect the depth and duration of inundation. This zonation ranges from open-herbfields of Myriophyllum amphibium in the areas of longest inundation, through herbfields of Samolus repens - Oenothera versicolor to Selliera radicans, Nabalium calycerioides closed-herbfields or Distichlis stricta closed-grassland.

8.2 Permanent lagoons.- The larger lagoons all contain permanent water. The two lagoons on the northern boundary, and the large lagoon in the centre of the reserve shelve fairly rapidly, and there is very little development of emergent macrophytes. The vegetation is limited to submerged aquatics such as Myriophyllum spicatum.

These lagoons contrast with those to the south, which contain shallower water and carry extensive reed swamps (plate 3). The chief species present are Triglochin palustris and Zygia. Myriophyllum spicatum, Myriophyllum spicatum and a number of unidentified submerged aquatics are also present. The emergent vegetation extends more or less across the entire surface of the lagoons. A dense floating cover of duckweed (Lemna minor) and water fern (Azolla filiculoides) was present on the larger lagoon at the time of the visit. The density of dead stems on the lagoon indicates that much of the lagoon was once covered in a Melaleuca erioides closed-scrub (plate 5). In the steeper inland sides of the southern lagoons are fringed by a sedgeland of Restio tetrarrhynchos above Sestrum isidatus. On the shallower eastern and northern banks of the large lagoon, there is a mosaic of rushes (Juncus acutiflorus), grasses (Distichlis,
heath Acacia and surrounding an of quartzite at the end of the reserve. An old duneblow is visible in foreground.

Poa), herbs (Crassula helmsii, Echiochium sp.) introduced herbs (Plantago coronopus, Rumex) and tussocks of the rush Juncus maritimus (plate 3).

This region is heavily trodden and browsed by cattle.

8.3 Riparian. - The banks of the streams and margins of outflows from fresh water soaks in the area provide specialised habitats for the development of sedgelands and semi-aquatic herbfields. The sedgelands are dominated by Carex appressa or Baumea tetragona on the banks of streams with Scirpus inundatus at levels of frequent inundation. The more acidophilous Restio tetraphyllus replaces these sedges in backwaters and other regions of standing water. At the shallower margins of streams, herbfields of Carex stagnalis and the Tasmanian endemic species Lilioaqua brownii occur within sedges and rushes such as Scirpus inundatus and Juncus planifolius.

9. Acid sedgeland - heath

The eastern boundary of the reserve is flanked by acid sedgeland-heaths developed on the ground water podzols beyond the foothills of Mt Cameron West. These communities lie outside the boundary of the reserve, and only a brief description is given. The area consists of a low-open (mallee) woodland of E. nitida over closed-heaths of Melaleuca aquorea, M. squarrosa, Leptoaspermu scoparium and L. glaucescens. The heath is replaced locally by sedgelands of Restio complanatus - Leptoaspermu filiforme, or, on sites of badly impeded drainage, by Leptoaspermu tenax sedgeland.

DISCUSSION

The native vegetation of the reserve is generally similar to other coastal types known to occur along the north-west and west coasts of Tasmania (Macphail et al. 1975, Jackson pers. comm.). The distribution of plants appears to be correlated with salinity, drainage, pH and microtopography. However, the vegetation has been extensively modified by burning, grazing and subsequent erosion, and by the past sowing of pasture species.
Vegetation of Mt Cameron West

A provisional scheme which outlines the inter-relationships among the major plant communities of the dunes and their hinterland is presented in Fig. 2. The bare sands of the frontal dunes are colonized by species such as Ochites, Spinifex and Festuca littoralis. This partial stabilization allows Poa dominated grasslands to establish, together with rhizomatous herbs and succulents. With the subsequent stabilization and increasing humification of the sands, open-heathlands replace the grasslands on sites which are wind-exposed, whilst on sheltered sites of free drainage, Acacia securinse scrub becomes dominant.

*Eucalyptus viminalis* woodlands develop in areas where there is protection from salt-laden onshore winds. The understorey of the woodland is variable and Leptospermum laevigatum scrub, heaths, bracken, sads and grasses all become locally prominent. The order of dominance is probably dependent on the fire regime. Fires of relatively low frequency and high intensity favour the development of Leptospermum laevigatum scrub (Hazard and Parsons 1977). Medium intensity — medium frequency fires favour heath species, and the grasses and sads pre-dominate where fires are very frequent and of low intensity. The density of bracken in the understorey varies from a few scattered plants to nearly 100% cover. This variability reflects the opportunistic nature of bracken. Bracken can sprout and spread quickly after fire, but soon dies back, creating fuel for the next fire. If the next fire is not intense (i.e. occurs soon after) then grasses etc. can compete, whilst in the absence of fire, heath species will dominate and eventually replace the bracken. In the continued absence of fire, *Leptospermum laevigatum* eventually shades out the other species, and in the long term produces a monotypic stand which is perpetuated by infrequent firing.

Dune swales and areas of impeded drainage support low sedgelands and herbfields on ephemeral wetlands. *Melaleuca ericifolia* swamp scrub and woodlands occur where the...
occurs initiated that coast environment contributed to dune destabilization ascribed the generally low incidence of to the absence of aboriginals. On the other hand, some early the south of area) describe rolling green hills (Macphail et Sandy Cape now consists largely of of midden material in the vicinity attests to the frequency of aboriginal use of the area Similarly, in New Zealand, Wendelken (1974) mentioned coastal areas inhabited by Maoris where burning has been part of the environment for 1000 years, but where excessive movement of sand has only recently become a problem. However, there can be little doubt that stabilized dunes which support a sparse, fire-induced, seral community are inherently more susceptible to destabilization than dunes which are more densely clad.

The advent of European man into the area has contributed to the degradation of the native vegetation in many ways. The most immediately apparent effect has been the clearing of most of the native vegetation and sowing to pasture of the fertile slopes of Mt Cameron West and its foothills.

The agistment of stock has greatly accelerated the erosion of the dunes, through mechanical damage, through over-grazing and through the too-frequent use of fire to provide a 'green pick'. Also, stock simultaneously distribute the seeds of weed species, and maintain conditions suitable for their growth.

The combination of fire and grazing can lead to 'ecological drift' (Jackson 1968), a process in which the chance elimination or promotion of particular species results in a succession of the vegetation towards a disclimax state. The disclimax is maintained by feedback mechanisms. In the present case, the predilection of stock for young regenerating herbs, grasses and shrubs places these species at a selective disadvantage when compared with the less palatable bracken, sedges and sages. The process is then reinforced by the high fire frequency which favours vegetatively propagating species and annuals at the expense of species which propagate more slowly by seed. Thus, once it is established, the seral community tends to self-maintenance because of the need of graziers to burn off more frequently.

Left to themselves, the transgressive dunes eventually become isolated from their source of sand and stabilize (Kirkpatrick pers.com.) However, this process may be unacceptable to land managers if the dune first engulfed land suited to grazing. It is probably for this reason that reclamation works have been carried out in the past using marram grass, a species which colonizes and binds free sand very much more rapidly than native grasses.
Vegetation of Mt Cameron West

MANAGEMENT PROBLEMS

The vegetation of the reserve has been considerably disturbed in the past. Recovery should be hastened by the removal of cattle and a reduction in the frequency of fires.

The planting of marram grass is probably the only feasible means of rapid re-establishment of a vegetative cover on the sand drift areas, provided that this is an appropriate technique for management within a State Reserve. Subsequent colonisation by other species already present in the area (Carpobrotus, Acacia, Cavanation, Lomandra) would be reasonably rapid. The blow-out areas of exposed coffee rock are currently devoid of vegetation. Natural regeneration of these will be very slow, requiring the aeolian deposition of sand and subsequent colonisation by plants. Areas susceptible to destabilisation should recover once the reserve is fenced, and the cattle removed. The large tracts of gorse on the slopes of Mt Cameron West will require more intensive control methods.

The reserve contains a number of plant species, plant associations and habitats not represented or poorly represented in the present State Reserve system. These include the Leptospermum laevigatum scrub and Plantago bellidioides, Solenogenia bellidioides, Hahniomum calyceroides and other lagoon fringe herbfields.

ACKNOWLEDGEMENT

I wish to thank C. Harwood for making available his notes on the vegetation in the wetlands. Thanks are also due to C. Harwood and W.D. Jackson for helpful discussion of the manuscript.

REFERENCES

M.J. Brown


APPENDIX

PLANT COMMUNITIES OF MT CAMERON WEST

Numbers in brackets indicate the vegetation mapping units which contain these communities.

1. *E. viminalis* - *E. octa* low-woodland (7)
2. *E. obliqua* woodland (2)
3. *E. nitida* woodland (7.9)
4. *Banksia spinulosa* open-woodland (4)
5. *Melaleuca ericifolia* closed-scrub (6)
6. *Leptospermum laevigatum* closed-scrub (6)
7. *Acacia sp.* closed-scrub (7)
8. *Ulex europaeus* closed-scrub (6)
10. *Calocephalus brownii* - *Olearia lepidophylla* low-shrubland (3)
11. *Tetragonia implexicoma* low-shrubland (2, 3, 4, 5)
12. *Lomandra longifolia* tussock-sedgeland (4)
13. *Restio complanata* - *Leptospermum filiforme* sedgeland (9)
14. *Lomandra longifolia* - *Setaria nodosa* sedgeland (3, 4)
15. *Leptospermum gladiatum* sedgeland (4)
16. *Leptoarpfx tenax* sedgeland (9)
17. *Pteridium esculentum* closed-fernland (3, 4, 5)
18. *Poa pittiformia* grassland (3, 4)
19. *Ammophila arenaria* - *Poa vexatoria* grassland (3)
20. *Stipa tenuifolia* open-grassland (2, 3, 4)
21. *Distichlis distichophylla* grassland (4)
22. *Carpobrotus rossii* herbfield (1, 2, 3, 4)
23. *Ather campylophyllus* - *Vulpia bromoides* grassland (4)
24. *Plantago bellidoides* - *Solenogyne bellidoides* herbfield (3, 4)
25. *Nablonium olygaeroides* closed-herbfield (4)
26. *Saloornia quinqueflora* open-herbfield (2)

CHECKLIST OF SPECIES FOR MT CAMERON WEST

The nomenclature for species in the checklist follows Curtis (1963, 1967) and Curtis & Morris (1975) for dicotyledons, and Willis (1970) for monocotyledons and pteridophytes except where otherwise is given. Endemic species are prefixed by "e", and introduced species by "i" in the checklist.

Seven Tasmanian endemic species were found in the area: - *Restio monocephalus*, *Correa baekhouiana*, *Leptospermum glaucescens* and *Lilacopers brownii* are fairly widespread and are recorded from a number of other State Reserves. *Nablonium olygaeroides* is restricted to the west coast and has been recorded in the West Point and the South-West State Reserves. *Ribertica nititica* is listed as common by Curtis & Morris (1975), but has been recorded only in the Freycinet National Park. *Plantago bellidoides* is not known to occur in any other State Reserve.
Vegetation of Mt Cameron West

**PTERIDOPHYTA**
- Schizaeaceae
  - Schizaea flexuosa
- Dennstaedtiaceae
  - Pteridium esculentum
- Polypodiaceae
  - Microsorum diversifolium
- Azollaceae
  - Azolla filiculoides
- Selaginellaceae
  - Selaginella uliginosa

**ANGIOSPERMAE : MONOCOTYLEDONEAE**
- Typhaceae
  - Typha angustifolia
- Juncaginaceae
  - Triglochin prosera
- Gramineae
  - Dactylis glomerata, Poa annua, Festuca littoralis, Koeleria macrantha, Stipa tenuissima, Lolium perenne, Armeria arenaria, Themeda australis, Alnus carrrophyllosa
- Cyperaceae
  - Schoenus nigricans, Scirpus cernuus, Scirpus nodosus, Scirpus inermis, Scirpus spp., Avena sativa, Bajona rubignosa, Echinochloa crus-galli, Leptochloa gladiata, Leptochloa filiformis, Leptochloa elatius, Leptochloa lateralis, Gymnoschoenus ephemerophillus, Carex appressa, Carex gaudichaudiana, Carex fassicularis
- Lemnaceae
  - Lemna minor
- Restionaceae
  - Restio tetraphyllus, Restio complanatus, e Restio monospermosus R. Br., Leptocarpus tenax, Hypochaeris fastigiata, Calonchus lateriflorus
- Xyridaceae
  - Xyris spp.
- Juncaceae
  - Luzula campestris, Juncus articulatus, Juncus coarctatus, Juncus maritimus, Juncus pallidus, Juncus prostratus
- Liliaceae
  - Lomandra longifolia, Lomandra caespitosa, Dianella tasmanica, Dianella revoluta
- Iridaceae
  - Patersonia fragilis
  - Orchidaceae
    - Asteliaeae exserta, Pterostylis nutans

**ANGIOSPERMAE : DICOTYLEDONEAE**
- Ranunculaceae
  - Ranunculus sp.
- Cruciferae
  - Lobularia edentula
- Pittosporaceae
  - Pittosporum bicolor, Bursaria spinacea
- Caryophyllaceae
  - Cerastium fontanum, Cerastium glomeratum, Colobanthus apetalus, Spigularia rubra
- Geraniaceae
  - Geranium sp., Pelargonium australe
- Rutaceae
  - Boronia pilosa, e Correa baskowiana, Correa alba
Leguminosae
Acacia verticillata, Acacia dealbata var. ovata, Acacia juniperina,
Acacia mearnsii, Acacia acicularis, Vicia villosa, Lotus corniculatus.

Droseraceae
Drosera pygmaea, Drosera spathulata, Drosera peltata.

Haloragaceae
Haloragis tenuifolia, Haloragis microstachys, Myrrhophyllum amphihium, Myrrhophyllum elatinoides.

Callitrichaceae
Callitriche stagnalis.

Myrtaceae
Leptospermum laevigatum, Leptospermum scoparium, Leptospermum ligustrum,
e Leptospermum glaucescens, Melaleuca squarrosa, Melaleuca squamea, Melaleuca eriophylla, Eucalyptus ovata, Eucalyptus viminalis, Eucalyptus obliqua, Eucalyptus nitida.

Onagraceae
Pyrola spinosa sp.

Ficoideae
Carobobota rosii, Disphyma australium, Tetragnova implexa ovum.

Umbelliferae
Hypericum sp., Xanthosia dissecta, Eryngium vesiculosea, Apium prostratum,
e Liliaepata broomii.

Caprifoliaceae
Sambucus gaudichaudiana, Opeomaria varia.

Rosaceae
Rumex brownii, Rumex acetosella.

Goodeniaceae
Poranthera microphylla, Salicornia bellidioides australis.

Leucopogon ericoides, Leucopogon incarnata.

Convolvulaceae
Dichondra repens, Samolus repens.

Banksia marginata.

Haplosporangium sp., Haplosporangium avenaceum.

Astrovizia collinsiae, Lysimachia ciliata, Lysimachia vulgaris, Lysimachia erioides, Monotoca lancea, Epacris implexa, Epacris lanuginosa, Sprengelia incarnata.

Primulaceae
i Anagallis arvensis, Samolus repens, Dichondra repens.

Plantaginaceae
i Plantago lanceolata, i Plantago major, e Plantago bellidoides.

Chenopodiaceae
Chenopodium glaucum sp. ambiguum, i Beta vulgaris sp. maritima, Salicornia quinquestria.

Polygonaceae
i Rumex arvensis, i Rumex acetosella, Muehlenbeckia adpressa.

Lauraceae
Proteaceae

Thymelaeaceae
Euphorbiaceae
Pimelea sp., Argemia zephyrada, Poranthera microphylla.
Vegetation of Mt Cameron West

Urticaceae
  Urtica indica, Urtica urens

Casuarinaceae
  Casuarina monilifera