

## VEGETATION OF LION ISLAND, BROKEN BAY, NEW SOUTH WALES

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### ABSTRACT

*Benson, D. H. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, New South Wales, Australia 2000) 1981. Vegetation of Lion Island, Broken Bay, New South Wales. Cunninghamia 1 (1): 121-123. A brief description of the vegetation of Lion Island is given, compiled from information collected in 1973 and 1974, and the species present recorded.*

### INTRODUCTION

Lion Island, (Lat. 33° 33' S, Long. 151° 19' E) situated at the entrance to Broken Bay, is a Nature Reserve administered by the New South Wales National Parks and Wildlife Service. The island is 560 m long and 280 m wide. It is highest at the eastern end (93 m a.s.l.) and descends to a saddle with a small rise (30 m a.s.l.) at the western end. There are cliffs on the eastern and southern sides. Geologically Lion Island is similar to the nearby Brisbane Water National Park. It is composed of a Hawkesbury Sandstone capping on the eastern end, with strata of the underlying Narrabeen Group exposed elsewhere.

### VEGETATION

The major vegetation is low woodland dominated mainly by *Angophora costata*, but with *Eucalyptus botryoides* as co-dominant on the eastern end of the island. Scattered tall shrubs of species such as *Banksia serrata* and *Exocarpos cupressiformis* are generally present, and a low shrub layer up to 2 m high is continuous over most of the island. *Xanthorrhoea arborea* and *Lomandra longifolia* are conspicuous in this layer with shrubs such as *Platysace lanceolata*, *Hakea sericea*, *Dodonaea triquetra* and *Acacia ulicifolia*. The litter layer is very thick, commonly up to 10 cm deep and few herbs were recorded. There are scattered areas of bare rock. In 1973 the vegetation did not appear to have been burnt for many years.

At the western end of the island in a better protected saddle is low open-forest of *Banksia integrifolia* and *Casuarina littoralis* with a ground layer of *Adiantum aethiopicum*, *Lomandra longifolia* and *Commelina cyanea*. On more exposed sites this grades into scrub with *Leptospermum laevigatum* and *Banksia integrifolia*. *Lantana camara*, an exotic shrub species, is common in these situations.

On scree slopes at the eastern end of the island and exposed to the ocean, is herbland with *Commelina cyanea*, *Lobelia alata* and *Dichondra repens*. Shrubs of *Westringia fruticosa* are found in cracks between large sandstone boulders and higher up on cracks and ledges on the cliff faces. In one place the scrambling climber *Flagellaria indica* forms a dense low scrub.

TABLE 1

Species recorded on Lion Island 1973-74

The list is not exhaustive.

\* = exotic species

#### PTERIDOPHYTES

##### Adiantaceae

*Adiantum aethiopicum*

*Cheilanthes tenuifolia*

##### Aspleniaceae

*Asplenium obtusatum* var. *difforme*

##### Dennstaedtiaceae

*Histiopteris incisa*

*Pteridium esculentum*

##### Psilotaceae

*Psilotum nudum*

**GYMNOSPERMS**

## Podocarpaceae

*Podocarpus spinulosus*

## Zamiaceae

*Macrozamia communis***ANGIOSPERMS****DICOTYLEDONS**

## Acanthaceae

*Pseuderanthemum variabile*

## Aizoaceae

*Carpobrotus glaucescens*

## Apiaceae

*Actinotus helianthi**Apium prostratum**Platysace lanceolata**P. linearifolia*

## Asteraceae

\**Conyza canadensis*\**Gnaphalium luteo-album*\**Hypochoeris radicata**Senecio minimus*

## Casuarinaceae

*Casuarina distyla**C. littoralis*

## Chenopodiaceae

*Chenopodium polygonoides**Rhagodia baccata*

## Convolvulaceae

*Dichondra repens*

## Crassulaceae

*Crassula sieberana*

## Dilleniaceae

*Hibbertia obtusifolia*

## Fabaceae

*Dillwynia retorta**Hardenbergia violacea**Kennedia rubicunda**Pultenaea deanei*

## Goodeniaceae

*Goodenia belledifolia**G. ovata**Scaevola ramosissima*

## Lamiaceae

*Westringia fruticosa*

## Lobeliaceae

*Lobelia alata*

## Loranthaceae

*Muellerina celastroides*

## Menispermaceae

*Stephania japonica*

## Mimosaceae

*Acacia longifolia**A. suaveolens**A. ulicifolia*

## Moraceae

*Ficus rubiginosa*

## Myrtaceae

*Acmena smithii**Angophora costata**Callistemon rigidus**Eucalyptus botryoides**E. paniculata**Leptospermum laevigatum*

- Myrsinaceae  
     *Rapanea howittiana*  
     *R. variabilis*  
 Oleaceae  
     *Notelaea longifolia*  
 Pittosporaceae  
     *Billardiera scandens*  
     *Pittosporum undulatum*  
 Polygonaceae  
     *Rumex brownii*  
 Portulacaceae  
     *Calandrinia* sp.  
 Proteaceae  
     *Banksia ericifolia*  
     *B. integrifolia*  
     *B. serrata*  
     *Hakea dactyloides*  
     *H. sericea*  
     *Isopogon anethifolius*  
     *Persoonia linearis*  
     *Petrophile pulchella*  
 Rutaceae  
     *Eriostemon australasius*  
     *E. buxifolius*  
 Santalaceae  
     *Exocarpos cupressiformis*  
 Sapindaceae  
     *Dodonaea triquetra*  
 Solanaceae  
     *Solanum nodiflorum*  
 Stylidiaceae  
     *Stylidium productum*  
 Thymelaeaceae  
     *Wikstroemia indica*  
 Verbenaceae  
     \**Lantana camara*

## MONOCOTYLEDONS

- Amaryllidaceae  
     *Crinum pedunculatum*  
 Commelinaceae  
     *Commelina cyanea*  
 Cyperaceae  
     *Caustis pentandra*  
     *Schoenus imberbis*  
     *Scirpus nodosus*  
 Flagellariaceae  
     *Flagellaria indica*  
 Iridaceae  
     *Patersonia glabrata*  
 Liliaceae  
     *Caesia vittata*  
     *Dianella caerulea*  
     *D. revoluta*  
 Orchidaceae  
     *Dendrobium linguiforme*  
     *D. speciosum*  
     *Pterostylis ophioglossa*  
 Poaceae  
     \**Paspalum dilatatum*  
     *Phragmites australis*  
     *Poa affinis*  
     *Spinifex hirsutus*  
     *Themeda australis*  
 Smilacaceae  
     *Smilax glycyphylla*  
 Xanthorrhoeaceae  
     *Lomandra longifolia* subsp. *longifolia*  
     *Xanthorrhoea arborea*