BUDAWANGIA*

AN E-NEWSLETTER FOR ALL THOSE INTERESTED IN THE NATIVE PLANTS OF THE NSW SOUTH COAST

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Aims: To connect those interested in the native flora of the NSW South Coast, to share up to date information on the flora of the region and to broaden the appreciation of the region's native plants.

Editorial

The high rainfall in late August certainly set us up for a bumper spring. The bush will be bursting with growth; although perhaps not good for fire fighters. Early in the month I visited Big Island off Port Kembla to do some vegetation work with NPWS. I have visited this island many times over the years, going back to the 1980s. It is interesting to see how the vegetation has changed over that time. The current project is to plant native vegetation back on the island, which at present is dominated by Kikuyu Grass. This edition concentrates on the Five Islands Group, of which Big Island off Red Point is the largest island.

A new weed for the region is identified, a small succulent recently found on Big Island. As usual, a new mystery weed is proffered and Number 6 in the wetland plants series is included.

The islands off Port Kembla were observed by James Cook in April 1770 and Bass and Flinders in 1889, but were not named by either. The journal kept by Cook records:

"Friday, 27th. Var'ble light Airs between the North-East and North-West, clear pleasant weather. In the P.M. stood off Shore until 2, then Tackt and Stood in till 6, at which time we tack'd and stood off, being then in 54 fathoms and about 4 or 5 miles from the land, the Extreams of which bore from South, 28 degrees West to North 25 degrees 30 minutes East. At 12 we tack'd and stood in until 4 A.M., then made a Trip off until day light, after which we stood in for the land; in all this time we lost ground, owing a good deal to the Variableness of the winds, for at Noon we were by Observation in the Latitude of 34 degrees 21 minutes South, Red Point bearing South 27 degrees West, distant 3 Leagues. In this Situation we were about 4 or 5 Miles from the land, which extended from South 19 degrees 30 minutes West to North 29 degrees East."

Cook mistook Big Island for the mainland, so named the eastern end of the island as Red Point. Subsequently, the name Red Point was transferred to the current mainland point opposite the island. It was another 183 years before the islands gained their official names in 1953.

I would be pleased to receive appropriate articles, however small, on interesting observations, new discoveries, plant name changes, etc., up to two A4 pages, including some photographs. Deadline is one week before end of month.

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* *Budawangia* is a monotypic, endemic genus restricted to the Budawang Range on the western edge of the South Coast region. The genus was named by Telford in 1992; the species *Budawangia gnidioides* (Ericaceae) was previously *Rupicola gnidioides*.

Vegetation on Big Island, Port Kembla

The view seaward from the top of Hill 60 at Port Kembla is dominated by a relatively large oceanic island. Officially named Big Island since 1953, but locally often called Rabbit Island, the island is part of the Five Islands Nature Reserve managed by the NSW National Parks and Wildlife Service.

The island has had a chequered history of human use. Aboriginal visits to the island are well known; shells from their middens are still visible among the rocks on the foreshores. From the early 1800s, cattle, goats and rabbits were taken to the island. In the mid-1800s a family named Perkins lived on the island and caught sharks for a living. The name Perkins Island was used in earlier days. Shell grit was mined for a time from a mining lease off the western side of the island in the 1920s and fishing parties often visited, some over-nighting on the island, not always by design if the seas came up during the day.

All of this activity, particularly the grazing by introduced herbivores, had a major impact on the native vegetation on the island. By the time a botanist got to the island to undertake a detailed study in 1938 most of the native vegetation was gone. Much of the island was bare sand dune, sand that had blown onto the volcanic base rock following sea level rise some 6,000 years ago. Worse was yet to some, however. In the 1960s, Kikuyu Grass *Cenchrus clandestinus* was introduced to the island in an attempt to stabilise the sand dunes. This rampant introduced grass did the intended job all too well, at the expense of most of the remaining native vegetation on the island. Today, the majority of the island is covered in a deep, dense sward of this grass; walking across the island is like walking on a gigantic sponge!

The native vegetation today is reduced to a relatively narrow band around the edges of the island where Kikuyu Grass finds it difficult to grow on the rocky surface. Here the natives compete with twice as many weeds for space. A relatively recent invader is the New Zealand coastal plant *Coprosma repens* (Rubiaceae), called Mirror Plant in Australia, which is becoming common on the island. These are the green shrubs seen on the island from Hill 60.

The native plants that do remain, none of which are terribly abundant, are mainly coastal species. These species include Pig Face *Carpobrotus glaucescens,* New Zealand Spinach *Tetragonia tetragonioides,* Pale Goosefoot *Chenopodium glaucum* and Salt Couch *Sporobolus virginicus.*

The eastern part of Big Island (usually referred to as No. 2 island); January 2014: light green – Kikuyu Grass; dark green – shrubs of *Coprosma repens.*

Patch of native vegetation on edge of Big Island; September 2014: bright green – *Carpobrotus glaucescens*; dull green - *Sporobolus virginicus.*

Back on Hill 60, looking across to the island today, one will see, to the north of the NPWS hut, a large brown patch of dead grass. This was sprayed earlier in the year, the preliminary step to planting

native species back onto the island. A major driver for this project is to improve conditions for several burrowing seabirds that breed on the island. The dense Kikuyu Grass not only hinders the movement of these birds, among them the Little Penguin and Wedge-tailed Shearwater, but the wings and feet of the birds can become entangled in the long runners of grass. Trapped, the birds eventually die of starvation. In addition to the burrowing species, other species breeding there are Australian Pelican, Australian White Ibis, Crested Tern and, in their thousands, Silver Gull.

A recent inspection of the sprayed area found several native species colonising the area, before any planting has taken place. These species are Wandering Sailor *Commelina cyanea,* Fishweed *Einadia trigonos,* Purslane *Portulaca oleracea* and *Tetragonia tetragonioides.* Weeds are also invading the sprayed area and require control if the project is to succeed.

Despite the overwhelming dominance of the native plants (18 species) by exotics (38 species), the native vegetation of Big Island can be recovered if resources are applied strategically and maintained in the medium-term. The island remains of great interest to the botanist as well as the seabird researcher and deserves careful management to retain these values into the future.

New weed for the South Coast

Portulaca pilosa (Portulaceae) is a small, prostrate succulent plant originating from the southern United States south to Brazil. It has the common name Akulikuli. Introduced to Australia, probably as a garden plant, it has become naturalised in Queensland and northern New South Wales. The species was recently identified on Big Island during a vegetation survey; there it is common, growing in cracks in the rocks around the edges of the island.

Prostrate plant of *Portulaca pilosa.*
Big Island, January 2014.

Flowers and leaves of *Portulaca pilosa.*
Note long, soft (pilose) hairs to right.
Big Island, January 2014.

Naming of the Five Islands

The following are the official (and local) names of the islands in the Five Island Group; some of the colloquial names are from earlier times.

Big Island (Rabbit Island, Perkins Island); Martin Islet;

Bass Islet (Pig Island); Flinders Islet (Toothbrush Island, Wollongong Island).

Big Island was seen as two islands, because of the low isthmus joining the two halves; hence the name Five Islands. There is a small, unvegetated rocky islet between Big Island and the mainland, so there are in fact five islands.

Mystery Weed

This weed is a common woody weed in some places and is related to a Mediterranean food plant.

Answer and notes next issue.

Wetland Plant No. 6 – *Isolepis cernua*

The small wetland plant Nodding Club-rush *Isolepis cernua* (Cyperaceae) is widespread, mostly growing in freshwater wetlands. The taxon has been given many names over the years, including *Scirpus cernuus*. It is a variable taxon that probably requires taxonomic investigation.

The species occurs on Big Island, but is rare, occasionally growing in association with freshwater springs that can be found in a few places on the island.

Number of Plant Species

The following numbers of species have been recorded over time, including recently (2014), on Flinders Islet and Big Island. The pattern of decreasing natives and increasing weed species is apparent on both islands.

Number of Plant Species on Flinders Islet and Big Island, 1928 to 2014

	1928[#]	1938	1989/1992	2014
No. of native species				
Flinders Islet	17	36	19	20
Big Island	17	40	21	16
No. of exotic species				
Flinders Islet	6	11	12	16
Big Island	7	18	43	38

#. Not a comprehensive survey.