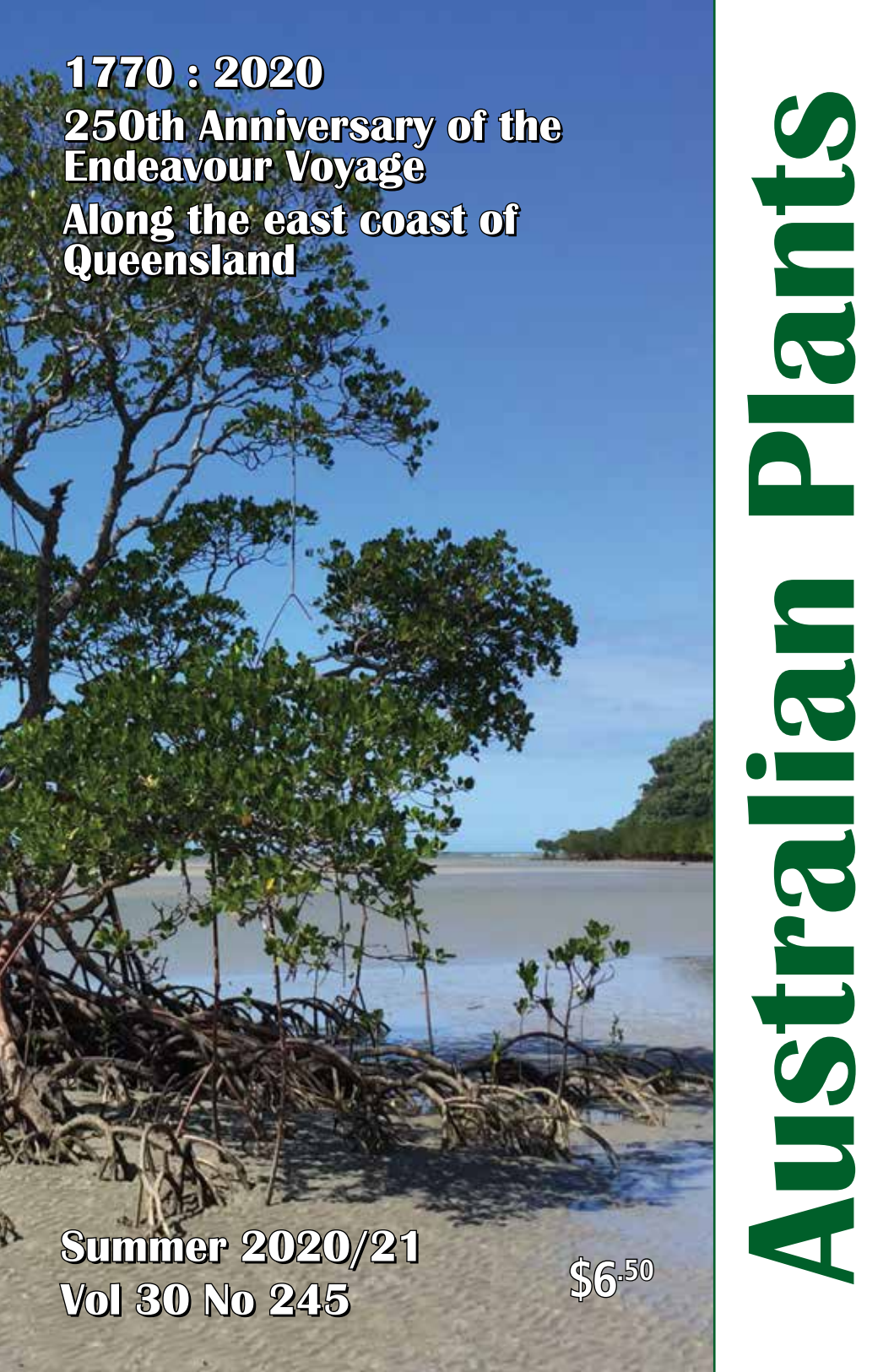




1770 : 2020

**250th Anniversary of the
Endeavour Voyage**

**Along the east coast of
Queensland**

Summer 2020/21

Vol 30 No 245

\$6.⁵⁰

Australian Plants

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Covers: front - Mangrove *Rhizophora stylosa* on the beach at Cape Tribulation;
back - *Barringtonia calyptrata*. Photos by Lawrie Smith

Note: Photos were taken by the authors unless specified otherwise.

Australian Plants articles

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Introduction

Lawrie Smith AM B.Arch UQ, D. Land Arch QUT ARAIA FAILA

Member of this Society for over fifty years, elected President for ANPSA & Native Plants Queensland. He was awarded the Order of Australia AM and the Australian Plants Award by ANPSA for his passion as a landscape architect in 'design with nature' by introducing the community to the diversity and value of the Australian flora in many significant projects.

The planned commemorative events to mark the 250th anniversary of the voyage of discovery in 1770 by Lt James Cook in command of HM Bark *Endeavour* were severely compromised by the impact of the pandemic that swept the world in 2020. In each of the various towns and locations along the Australian east coast special celebrations were planned (most were deferred), to coincide with the original dates of the first landings. During the voyage, Captain Cook landed thirteen times along the eastern seaboard, of which twelve were in Queensland.

The Australian Plants Journal winter edition 2020 covered the exploration and discoveries of the first landing in Botany Bay, and also describes the production of Banks 'Florilegium'. This summer edition traces the *Endeavour* as it sails north along the Queensland east coast through the tropical waters of the Great Barrier Reef and beyond.

The following pages describe some of the more botanically interesting exploits and discoveries of the voyage and were prepared by several authors who have each been intimately involved with the various landing places variously as botanic gardens curator, botanist, horticulturalist and members of Native Plants Queensland. It has been a very interesting task for me to research, coordinate, edit and link the illustrated stories prepared by the authors. Reading the journals of Cook and Banks has been particularly informative as these provide a good idea of what the Queensland coastline was like 250 years ago in 1770. Unless otherwise credited all photos are by Lawrie Smith.

A Botanical Endeavour

Tony Roberts, BSc Botany JCU, Curator Cooktown Botanic Gardens
ex Interpretive Officer Cairns Botanic Gardens.

Lt James Cook commanded the *Endeavour* on a voyage of discovery to the southern Pacific Ocean, on behalf of the Royal Navy and the Royal Society. The aims of the expedition were to observe the 1769 transit of Venus across the Sun and to seek evidence of Terra Australis Incognita. The journey westward around the globe, took almost three years (August 1768 – July 1771) during which Cook successfully carried out the two major aims and in the process added so much new knowledge of world geography and natural history.

The crew onboard the *Endeavour* included two naturalists; Joseph Banks and Daniel Solander, and their seven assistants.

Joseph Banks (1743-1820) was a wealthy naturalist with a particular interest in plants. He was a member of the Royal Society and established his scientific reputation by describing the natural history of Newfoundland and Labrador in 1776. After Banks was appointed the official botanist on board the *Endeavour* for the voyage he funded the eight others joining him and all of their supplies.

Daniel Solander (1733–1782) was born in Sweden and studied botany under the celebrated Carl Linnaeus. Linnaeus convinced Solander to move to England where he worked and actively promoted the Linnaean Biological Classification System, which is still in use today. Banks invited him to join the natural history team on board the *Endeavour*.

The other members of Banks' team included:

Sydney Parkinson (1745-1771) gifted botanical & natural history artist.

Herman Diedrich Spöring (1733-1771) secretary and artist.

Peter Briscoe (1737-1810) servant and field assistant.

James Roberts (1752-1826) servant and field assistant.

George Dorlton (?-1769) servant and field assistant.

Thomas Richmond (?-1769) servant and field assistant.

Alexander Buchan (?-1769) artist.

George Dorlton, Thomas Richmond and Alexander Buchan, all died before the *Endeavour* reached Australian waters. Herman Spöring and Sydney Parkinson passed away during the voyage home across the Indian Ocean. Almost one third of the crew died during the voyage.

Following the observation of the Transit of Venus, the *Endeavour* voyaged west, through the Society Islands to New Zealand. Cook spent six months mapping the coastline, proving that New Zealand was made up of two islands. Meanwhile Banks and Solander made the first scientific collections of the New Zealand flora, collecting over 350 species of plants during the circumnavigation.

The First Landing in Australia

After leaving New Zealand, the *Endeavour* continued heading west and Cook first sighted the southeast coast of Australia near Cape Howe, on April 19, 1770. Sailing north for ten days, the ship moored in a large inlet protected by what is now known as the Kurnell Peninsula, and on April 29, 1770 became the first Europeans to set foot on Australia's east coast. Cook originally named the inlet "Sting-Ray Harbour" but later changed it to "Botany Bay" after the extensive collection of plants new to botany found there by Joseph Banks, Daniel Solander and Herman Spöring.

North from Botany Bay

On Saturday May 5, 1770, the *Endeavour*, sailed out of Botany Bay after eight days of intense exploration during which the naturalists encountered an unusually large number of plants previously unknown to science. Continuing uneventfully north in uncharted waters, their main occupation being the plant identification, sorting and preparation of drawings for each of the specimens collected in Botany Bay.

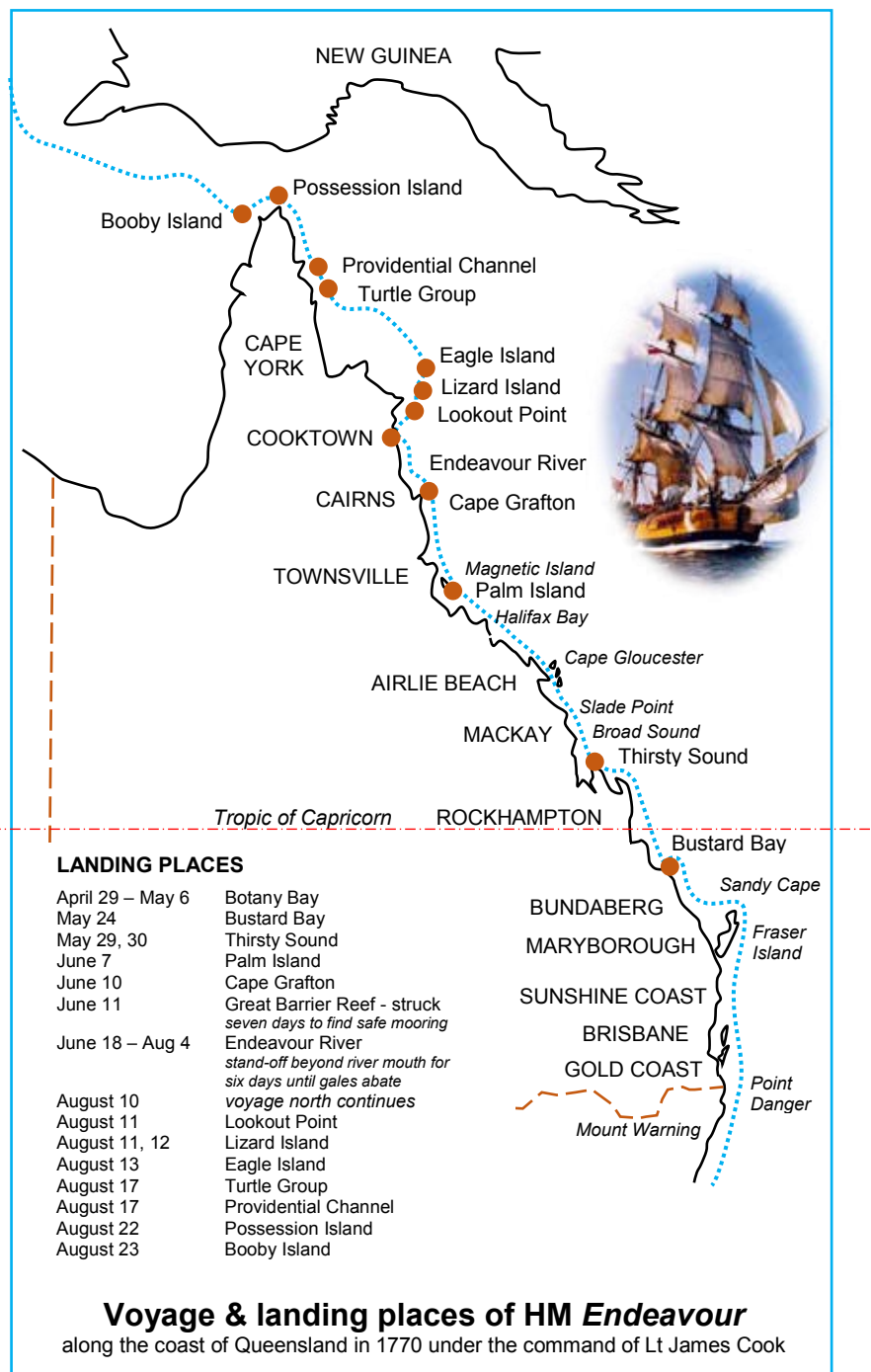
Cook's journal records that during the voyage several large bushfires were seen as well as many small columns of smoke, which were likely aboriginal campsites. Occasional figures were seen on the beach, one large group of more than twenty stopped and looked toward the *Endeavour* but appeared to be unconcerned. The seas were generally calm with good brisk breezes pushing the ship steadily north, and fish were readily caught to augment the food supplies. The foreshores they observed varied from steep and rocky, to low lying and flat, interspersed with substantial areas of apparently verdant, mixed vegetation types.



Mount Warning

Photo [www 'the wong couple'](http://www.the-wong-couple.com)

May 16: a "remarkable peaked hill was in sight 5 – 6 leagues beyond the shore", surrounded by an extensive wooded, apparently fertile coastal plain. This hill Cook named Mount Warning as at the time the sea was running high with very fresh winds that churned up and drew attention to an otherwise unseen underwater reef that they were able to evade. After rounding Point Danger the *Endeavour* entered Queensland waters and continued to the north.



North around Point Danger

Authors - Kate Heffernan Botanic Gardens Consultant, Educator and Garden Writer and Paul Cockbain, Curator Gold Coast Botanic Gardens

Although Cook did not land in southern Queensland his observations and the geological features he named in 1770 are very much entrenched in the local heritage. The Gold Coast Regional Botanic Gardens have developed an extensive new plant collection and landscape named 'Coastal Headland' to commemorate this section of the voyage of discovery - Botanic Endeavour 250.



Cook Island, section of reef, Fingal Head & hexagonal basalt columns
Photo Kate Heffernan

Point Danger forms the commencement of the New South Wales and Queensland border. There has been conjecture over whether Cook actually identified and named what became known as Fingal Head as his Point Danger. His charts and records clearly take into account nearby Cook Island. Anyone interested in the ongoing saga may like to read the following report and make your own opinion. I personally have no idea, but prefer to think it might be Fingal as this headland has not been quarried and altered beyond recognition.
http://rupertgerritsen.tripod.com/pdf/published/A_Dangerous_Point.pdf

We drew inspiration for our Botanic Endeavour 250 celebration from some of the Gold Coast region's vegetated coastal headlands which are also rich with Aboriginal history. Two major physical landmarks, Mt. Warning and Point Danger, were charted and named by Captain James Cook as the *Endeavour* sailed past what is now the border region

between Queensland and New South Wales. Each has featured prominently in the oral traditions of the region's Aborigines.

Mt. Warning, described by Cook as '*a remarkable peak*', is known as Wollumbin in the local language. It is the core of a huge volcano which impacted on the other major landmark, Point Danger, so called because of dangerous off shore reefs. The landforms were created 23 million years ago by a series of eruptions of a huge volcano that left Wollumbin as its 1,146m high core. Spilled lava formed Cook Island, Point Danger and other local headlands as well as the reef. It left behind what is now the world heritage McPherson Ranges, rim of the once giant shield volcano.

The commemoration of the 1770 voyage provides an opportunity to expand on our Botanic Gardens objectives of showcasing and conserving the region's botanical and cultural heritage. The 'Coastal Headlands', the next plant collection zone of our Mangroves to Mountains Precinct, is being constructed to showcase the geology and plants of the region's headlands.

Botanist Joseph Bank's journal noted on May 16 - '*....people were seen, about 20, each of which carried upon his back a large bundle of something which we conjectured to be palm leaves for covering their houses*'. Many plants used in the new Zone will become part of our popular Indigenous Plant Use Trail.

Starting at the Coastal Headlands bed in the Gum Corridor Zone, a path will lead through newly planted gums, then littoral rainforest species, as were extant behind the headlands before development. This will gradually give way to coastal headland vegetation, supported by a landscape comprising basalt hexagonal boulders and loose rocks strewn as they are at the foot of the now eroded, or quarried local headlands. The created landscape will lead to an opening on the 'headland', constructed on the banks of Lake Rosser, engineered in the 1990's for flood mitigation.

The Coastal Headland Zone was originally planned to be opened on May 17, 2020, 250 years and one day after the *Endeavour* sailed past. Construction and planting was delayed by the Covid19 pandemic, and will now commence in late July. The Coastal Headland Zone will not only grow to become a landmark in our Botanic Garden but will be a reminder of what is a shared botanical history.

The Gold Coast Regional Botanic Garden Friend's nursery has recently successfully propagated several batches of an unusual low growing ground cover form of *Xerochrysum bracteatum* from Northern NSW. In its native habitat it is found along the exposed coastal headlands.

Joseph Banks collected this species in Botany Bay, Thirsty Sound and in the Endeavour River.



Xerochrysum bracteatum headland form (Paper Daisy)
Photo: Alan Donaldson

We were fortunate to have seeds donated and to our surprise we were able to achieve excellent results when we propagated the first batch of seeds. Even more surprising has been the growth habit and prolific flowering of the plant. This appears to demonstrate that it is a distinct adaption to the salt laden winds of exposed coastal headlands.

This species is not to be confused with a similar variety of *Xerochrysum bracteatum* known commercially as 'Diamond Head'. Whilst that species also grows in a similar environment and similar form, it has much narrower leaves. Our form has dull grey- green slightly hairy

leaves approximately 30mm x 100mm. The plant grows to approximately 150 mm in height and with a naturally spreading habit. The bright yellow daisy-like flowers grow on stems up to around 150mm above the foliage. Seed collection is easy approximately a week or so after maturing.

In cultivation in our home garden this autumn and winter, the plant has shown considerable horticultural potential as both a pot specimen and as ground cover. In both situations the plant flowers prolifically. They continue to flower now we are well into spring and very hot weather. In the pot it requires regular watering to the potting mix (not over the leaves) preferably in mornings. It appears to be prone to fungal damage if the leaves remain wet at night. This has been shown to occur at our nursery as well. The plant benefits from a well- drained situation and regular applications of slow release native fertilizer.

These species are also commonly found clothing exposed rock faces of coastal headlands. Joseph Banks did not have the opportunity to land and collect species here in 1770, but he did find them further north.



top left
Myoporum boninense
ssp australe
Boobialla



top right
Canavalia rosea
Beach Bean

left
Carpobrotus
glaucescens
Angular Pigface

May 17: The *Endeavour* sailed rapidly north all night under a strong south-westerly gale, past what is now the Gold Coast, enroute naming Point Lookout (Stradbroke Island) and Cape Morton (Moreton Island). At daylight Cook observed that they had been blown some 7 leagues (40 km) north of this cape bypassing the expansive waters of the bay given the same name which “... trends away west farther than we could see for there is a small space where we could see no land - some on board was of opinion that there is a River there because the Sea looked paler than usual”. Consequently the Brisbane River and the site for the future city of Brisbane were not discovered in 1770.

The Botanical Encounters Garden

Author & photos - Dale Arvidsson, Curator

In 2020, Brisbane Botanic Gardens Mt Coot-tha commemorated the 250th anniversary of the first recording by western science of Australia's east coast flora by Joseph Banks and Daniel Solander with a new garden called 'Botanical Encounters'. The *Endeavour* sailed past the coastline of what is today Brisbane City on May 17 and this year the culmination of 5 years of planning, procurement, and planting resulted in a new garden to commemorate this event.



Xanthorrhoea johnsonii, *Acmella grandiflora*
var. *brachyglossa* and *Wahlenbergia*
capillaris in the Woodland section

This concept was originally raised by Lawrie Smith in 2007 at what was then called the Network of Regional Botanic Gardens – Tropical and Subtropical Zone (NRBG) Qld Region (now Botanic Gardens Australia and New Zealand Queensland Branch). Many of Queensland's botanic gardens agreed to participate in displaying collections of native plants recorded by Banks and Solander either at or close by to their current Garden's location, or interpret a representative selection

of these plants in a display garden, via a signed interpretation 'trail', or through guided walks, educational activities and events.

At Brisbane Botanic Gardens Mt Coot-tha this concept was developed into a new garden featuring those species recorded by Banks and Solander along their journey in what is today Queensland, along with interpretative information and guided walks led by our Volunteer Guides. This interpretation also encompasses a wider selection of plants found in the native collections of the Gardens at Mt Coot-tha via guided walks with the Volunteer Guides and curriculum based educational programs.

Coincidentally, the Queensland Herbarium, located at the Gardens, holds many of the original collected specimens of Banks and Solander from 1770, which is an amazing resource to be able to view (on request) plants collected 250 years ago. The Herbarium's collections also include many historically important specimens to Queensland, including those collected by explorers Robert Brown, Ludwig Leichhardt and Amalie Dietrich along with early botanists Frederick Manson Bailey, Cyril Tenison White and Leonard Brass. It was decided to incorporate these themes of 'discovery' and 'botany' in the Botanical Encounters Garden to create a fitting and unified welcome to both the important and historic native flora collections at the Herbarium and as the entrance to Botanic Gardens Administration and the Mt Coot-tha Library.

Garden theme of botanic discovery

In this new garden, the theme 'Botanical Encounters' incorporates a selection of the flora collected by Banks and Solander in 1770 from present day Queensland sites, including Bustard Bay (Town of 1770), Thirsty Sound (St Lawrence) and Endeavour River (Cooktown) along with plants with historic or modern-day interesting and important stories of botanic discovery by western science. The beds are loosely divided into vegetation 'zones' including 'rainforest', 'woodland', 'riverine' and

'waterways' to suit the site's aspect of sun/shade exposure. Guided tours and interpretation links to the nearby Australian Rainforest garden and the Aboriginal Plant Trail located within, also acknowledges the tens of thousands of years of Aboriginal ethnobotany of native flora prior to 1770.



Geranium solanderi – after Daniel Solander

May 17: After rounding Cape Moreton, the *Endeavour* sailed past Moreton Bay and the sandy foreshores of what is now known as the Sunshine Coast. Captain James Cook noted several distinctive inland hills that would provide a landmark for future exploration of the area.

The Glass House Mountains

A Significant Geological and Botanic Landmark

Author: Jan Sked, author and respected long term member of ANPSA & NPQ who has a remarkable knowledge of the flora of South East Queensland.

'These hills lay but a little way inland and not far from each other, they are very remarkable on account of their singular form of elevation, which very much resemble glass houses which occasioned my giving them that name...'

(extract from Cook's journal on Thursday, 17 May 1770)



The Glasshouse Mountains from the Blackall Range

Millennia before Captain Cook named these volcanic plugs because of their similarity to the distinctive conical forms of the glass house furnaces of his homeland, the local Kabi Kabi aboriginal people have revered these distinctive mountains, as well as the surrounding plains, waterways and vegetation as a special cultural place. Today the Glass House Mountains are respected by all Australians for their unique ecological, botanic and aesthetic qualities. They are classified of "national significance" and protected within the Glass House Mountains National Park.



Glass House furnaces, Lemington, UK

photo Newcastle Library

The remaining Glass Houses in England are similarly protected. It is easy to see how the unique geological formations of the Glass House Mountains are reminiscent of the glass making brick furnaces. In their day, the conical furnaces of Yorkshire would have been extraordinary - designed with the latest, cutting-edge technology to produce luxury glassware with a distinctive green tint that apparently only the wealthy could afford. Manufacturing glassware required ingenuity and skill that was rare in Tudor England.

As Cook and the Endeavour sailed past this diverse section of the Queensland coast, Banks and Solander could not have realized what a wealth of botanical discovery they were missing by not putting ashore in this vicinity. The peaks of the Glass House Mountains protect montane heath, an uncommon community on the Queensland coast, while the surrounding hills and plains provide habitat for many different vegetation communities.

In particular, the rocky pavements of the Glass House peaks provide habitat for a number of plant species of conservation significance. Thanks to native plant enthusiasts many of these horticulturally desirable plants have been brought into cultivation and can now be appreciated by everyone.



Lawrie Smith



Glenn Leiper

Leptospermum luehmannii (Glass House Mountains Wild May)

A naturally contorted multiple trunk small tree, that as the bark peels displays remarkable colour change of burgundy, cream and olive green; clusters of large white flowers contrast with shiny emerald leaves.



Glenn Leiper

Banksia conferta (Mt. Beerwah Banksia) A large shrub with rough grey tessellated bark, golden yellow flower spikes rich in honey and woody seed cones.



Glenn Leiper

Grevillea hodgei (Coochin Hills Grevillea) An attractive, quick growing shrub with grey-green divided leaves and dense cylindrical, creamy-yellow flower spikes.



Glenn Leiper

Dodonaea rupicola (Velvet Hopbush) Small decorative shrub with softly hairy pinnate leaves and reddish, densely hairy, 4-winged seed capsules in summer.



Lawrie Smith

Eucalyptus curtisii (Plunkett Mallee) An exceptional small, multi-trunked mallee with silvery stems, pendulous leaves and masses of creamy white blossoms in spring.

Sailing Past the Sunshine Coast

Author & photos - Michael Gilles, Team Leader; Dr. Lisa Ryan, Environmental Education Officer Centres for Conservation, Learning & Partnerships, Sunshine Coast Council.

Not far from the Glass House Mountains is the Maroochy Regional Bushland Botanic Garden. A place that displays, cultivates and tells the story of the natural landscapes that have shaped the character of the Sunshine Coast. The Garden provides a unique experience for visitors to observe local native plants both in their natural habitat as well as showcased within specialised gardens, demonstrating their suitability for use in landscape and home gardens. The plant collection contains more than 350 naturally occurring plants of the Sunshine Coast region.



In 2020, as we reflect upon and celebrate the 250th anniversary of the botanical exploration of the eastern coast of Australia by Cook, Banks and Solander, it is important to also recognise and acknowledge the rich, detailed botanical knowledge held by Australian First Nations people. In this anniversary year, we are working in partnership with Sunshine Coast Kabi Kabi Traditional Custodians to create an Ethnobotany Trail celebrating their ongoing and complex botanical knowledge. The trail will highlight significant food and fibre sources, seasonal indicators, medicinal plants and

other significant flora that demonstrates their extensive scientific and botanical knowledge.

Cook's diary records his first encounter with the cabbage tree palm (*Livistona australis*) in Botany Bay, which provides an indication of its significance for the local Dharawal people.

"...many of the trees, especially the palms, were cut steps about 3 or 4 feet asunder for the convenience of climeing them."
(Cook's journal, 1 May 1770)

The cabbage tree palm is equally important to the Kabi Kabi people as an important food, fibre and medicinal source. The crown of new growth when boiled or eaten raw, has the taste and texture of cabbage.



Livistona australis

The heart of the trunk was cooked and eaten to relieve a sore throat, while the leaves were used for roofing. The fibre used to make rope, string and fishing line also has the perfect texture for fire-lighting quickly catching alight from a spark generated with fire-sticks. With abiding respect for the lore of the land, palms are always harvested sustainably ensuring a ready supply for future generations.

There are many other ethno botanically significant species on the Sunshine Coast. First

Nations people have observed, understood and described these plants in their culture for thousands of years. The plants names and uses were interwoven in complex ecological relationships that enabled a nuanced reading of Country. It is intended that the Maroochy Regional Bushland Botanic Garden Ethnobotany Trail will provide a valuable opportunity for the preservation and reinvigoration of these local ethnobotanical practices in the Sunshine Coast region and be an ongoing resource for cultural and botanical understanding.

From the Sunshine Coast to Capricornia

May 18-19: sailing past Double Island Point, Cooloolia; the coastline became low lying and sandy, culminating in a long sweeping island defined to the north by an extended sandy cape, with a wide deep bay to the west - off Indian Head and Sandy Cape (Fraser or Great Sandy Island).

May 20: *Endeavour* sails around Break Sea Spit, then skirted the Hervey Bay region noted as *"fertile to appearance as anything we have seen upon this coast"*.

May 21: continued north and anchored 5 miles [8 km] off Round Hill Head.

May 22: weighed anchor 6.00am, edged to within 2 miles [3 km] of land at noon; continued slow progress thru shoals parallel to shore until 5.00pm, boat sent to sound depth, anchored in Bustard Bay by 8.00pm;

May 23: the first landing in Queensland (second landing in Australia), on the beach below Round Hill Head. Departed the next morning.

Bustard Bay and Round Hill Head

First Landing in Queensland - Second east coast landing

Lawrie Smith AM landscape architect, Past President ANPSA & NPQ
and Brent Braddick Curator Tondoon Botanic Gardens, Gladstone



Round Hill Head & Bustard Bay



View from Round Hill Head



The beach landing place

Late in the evening of May 21, 1770, the *Endeavour* anchored along the Central Queensland coast, well off the eastern shore of the rocky peninsula of Round Hill Head. It was Cook's intention to sail early next morning, around to the western side of the headland into Bustard Bay, an apparently large pristine sandy inlet. However it took most of the day to carefully negotiate a route through a maze of sandy shoals and deeper channels before the *Endeavour* finally dropped anchor about 8.00pm, still some 1.5 miles [3 km] from the shore. Early on the morning of May 23, Cook, Banks, Solander and a small crew set forth on the ship's pinnace or tender boat and landed on a sandy beach. Significantly, this was the first landing by Europeans on what is now Queensland soil.



Pandanus tectorius

We know from the diary entries, they had come ashore particularly to replenish fresh water supplies, search for suitable timber, generally explore the area and collect specimens of the native flora. Viewed from the *Endeavour* the peninsula looked promising as before landing, Banks observed in his journal, "*We plainly saw with our glasses that the Land was covered with palm-nut trees (Pandanus tectorius) which we had not seen since we left the islands in the tropics.*"

However once on shore they were not overly impressed with the local environment as Captain Cook writes in his journal, "*the country is worse than Botany Bay, the soil is dry and sandy. The woods free of any understorey of any kind ...*" Despite this they collected a total of 55 species from this landing place. Many were later illustrated in 'Joseph Banks' Florilegium'.



Rhizophora stylosa

Banks recorded a freshwater creek near where they came ashore and noted that the beach was partially protected by belts of mangroves *Rhizophora stylosa*, and fringed with palm groves *Livistona decipiens*, paperbarks *Melaleuca leucadendra*, and cotton wood trees *Hibiscus tiliaceus*.

The steep drier hillside slopes above the foreshore extending to the almost bare grassy ridgeline of Round Hill Head, were covered with a mixed forest of ironbark *Eucalyptus crebra* and other species inviting botanic exploration

"*we found a great variety of plants, several however the same as we had ourselves before seen in the islands between the tropicks, and others known to be natives of the East Indies.*"



Scaevola calandulacea



Alyxia spicata Chain Fruit



Ajuga australis Australian Bugle



Microsorium punctatum
Climbing Birds Nest Fern

Banks writes that collecting at the headland was made uncomfortable by innumerable biting Green Tree Ants. *"These, when disturbed come out in large numbers and revenged themselves very sufficiently, biting sharper than any I have felt in Europe!"* Another unwanted encounter in the mangrove forests was the large numbers of green caterpillars *"beset with many hairs . . . ranged by the side of each other like soldiers twenty or thirty to each leaf . . . every hair stinging as much as nettles do, but with a more acute tho less lasting smart."*

Numerous columns of smoke could be seen around the bay foreshore, indicating the presence of the native people. Those who stayed on board the *Endeavour* witnessed a group of about twenty of the local people come down to the beach and stand quietly for some time looking at this strange craft, before moving silently back into the forest.

Seafood abounded in the shallow waters - fish, crabs, hammer oysters and pearl oysters. Birdlife was prolific seagulls, pelican and bustards - one of which was shot and at 15 pounds (7 kg) *"made our evening dinner not only good but plentiful."*

Surprisingly the natural landscape is still basically unchanged today, with much of the same species diversity as was found 250 years ago in 1770. The small village at the landing site bears the appropriate name of the *Town of Seventeen Seventy*.

Into the Tropics

May 25 – 28: The *Endeavour* continued north, crossing the Tropic of Capricorn then passing the Keppel Islands, Cape Manifold and Shoalwater Bay to the next landing in Broad Sound.

Birds, Butterflies and Mosquitoes, but no Water!

Third east coast landing

John Elliott, Secretary Townsville Native Plants Queensland

On May 29 & 30, 1770 the *Endeavour* was sailing in the southern section of Broad Sound near present day St Lawrence and named by Cook *'the Bay of Inlets, so named from the Number of Inlets Creeks &C^a in it'*. [James Cook's Journal of Remarkable Occurrences aboard His Majesties Bark Endeavour, 1768-1771. NLA Manuscript 1]

Cook continues; *'As I observed the tides to flow and Ebb something considerable I had some thoughts of laying the Ship a shore to clean her bottom. with this View both the Master and I went to look for a convinient place for that purpose and at the same time to look for fresh water not one drop of which we could find but met with several places where a Ship might be laid a shore with safety — I went again in search of fresh water but had no better success than before wherefore I gave over all thoughts of laying the Ship a shore being resolved on spending as little time as possible in a place that was likely to afford us no sort of refreshment.'*

While in the Bay of Inlets they landed and explored three locations in the vicinity of Thirsty Sound, Quail Island & Long Island, each was similarly dry, barren and sandy. Banks records experiencing expanses of mud, dense tangled mangroves, innumerable mosquitos, sharp spear grasses, clay ant nests, swarms of butterflies, flocks of lorikeets and other birds . . . but no fresh water! Never the less a small selection of interesting coastal plant species were collected, including:



Psychotria loniceroides
Hairy Psychotria – attractive shrub to 4 metres with soft felty leaves, small white flowers and fleshy cream fruits



Pandorea pandorana
Wonga Vine – vigorous vine of drier rainforests and open forest, open foliage along twining stems, variable flower colour white to pink



Dendrophthoe vitellina

A common mistletoe, occurs on a range of species, mainly on plants in the myrtle family (Myrtaceae) such as *Eucalyptus*.

Erect or pendulous elongated, greyish-green, elliptical leaves, with clusters of attractive yellow to red flowers throughout the year, followed by fleshy orange fruits.



Exocarpos latifolius

Broad-leaf Native Cherry - parasitic tall shrub, swollen red or orange fleshy pedicel



Acronychia laevis

Glossy Acronychia - small tree along watercourses, white flowers, edible pink-mauve fruits

Mackay and the Whitsundays

May 31 – June 3: Sailing across Broad Sound, passing Cape Palmerston, Slade Point, Cape Hillsborough, Cape Conway and Repulse Bay. Cook observed “. . . the mainland is here pretty much deversified with Mountains, Hills plains and Vallies and seems to be tolerably clothed with wood and Verdure . . . hardly any exceeds 5 Leagues in circuit . . .”

Across Broad Sound to the Whitsundays

Authors:

Donna Jackson, Coordinator Mackay Regional Botanic Gardens;

Irene Champion, life member of NPQ; Secretary, foundation and life member of NPQ Mackay Branch;

Grant Paterson, Principal Ecologist GAP Tree Change Pty Ltd, and Scientific Advisor / Past President of NPQ Mackay Branch.

Introduction

Captain James Cook's expedition through the Mackay district began when they sailed across the northern section of Broad Sound, after departing from the landings near Quail Island and Thirsty Sound to the south of Mackay. On the 2nd June the *Endeavour* sailed past Mackay, notably Slade Point, named by Cook after Sir Thomas Slade, then reached the Whitsunday Passage, to the North of Mackay, on June 4.

Although there is no record of any landing near Mackay, many plants contained within the Mackay Regional Botanic Gardens (MRBG) Living Collection were collected by Joseph Banks and Daniel Solander during Cook's expedition along the east coast of Australia.

Views from the ocean

The most notable view of the Mackay district coastline from the decks of the *Endeavour* would have been the numerous Hoop Pine (*Araucaria cunninghamii*) and Pandanus (*Pandanus tectorius*) communities which inhabit the coastal headlands of this region. As the Hoop Pine can live up to 450 years it is not unreasonable to believe that the coastal communities around Mackay would be the same as those witnessed by the crew of Cook's expedition. However, the first specimens of this



Example of headland vegetation with Hoop Pine emergents
photo by Steve and Alison Pearson

plant were not collected until the 1820's by Allan Cunningham, some 50 years after the *Endeavour* sailed past.

Slade Point

Urban development has impacted on the vegetation on the headlands around the coastline of Mackay. Vegetation remnants remain at Slade Point which showcase the tussock grassland and semi-evergreen microphyll vine thicket, with *Araucaria cunninghamii* and *Pandanus tectorius* as emergents which are a conspicuous part of the flora.



Slade Point headland – photo by Mackay Regional Council



This drawing of *Pandanus tectorius* - Screw Pine by Ellis Rowan provides a point of interest to trace how the specimens collected by Banks and Solander have been utilised throughout the horticultural history of the Mackay region.

Pandanus tectorius Parkinson syn *Pandanus pedunculatus* R Br., family Pandanaceae
Mackay Queensland 1887
Pic Solander Box C23 #R2109

Photo by the National Library of Australia,
nla.obj-1387620691887.

Ninety-six plant species which relate directly to the collections made during the expedition by Banks and Solander are held within the MRBG Living Collection. Much of the MRBG collection is endemic to the Central Queensland Coast Bioregion (CQCB).

Amongst those are three species, identified below, collected from Thirsty Sound (near Broad Sound) when the Banks and Solander expedition came ashore.



Dendrobium discolor

Golden Orchid, epiphytic or lithophytic with pseudobulbs up to 5m in length. Occurs in the coastal scrub, rainforest and woodland areas and even on exposed rocky headlands of the CQCB –
photo by Dr Peter Adams



Wollastonia uniflora –
Beach Sunflower,
sprawling perennial or sub
shrub with showy yellow
daisy flowers.

photo by MRBG



Melaleuca viridiflora

Broad-leaved Paperbark,
small tree, flowers cream to
pink or red, more frequently
bright apple-green.

photo by Steve and Alison
Pearson

MRBG's Celebration of the 1770 voyage

To commemorate the huge contribution to botany and botanic collections made by Banks and Solander, a garden at the entrance to the MRBG has been planted with five notable species from the Banks and Solander collection including *Banksia integrifolia*, *Hibbertia scandens*, *Lobelia membranacea*, *Thuarea involuta* and *Rostellularia adscendens*. An interpretation sign introduces visitors to the Banks and Solander collection.



Banksia integrifolia (left)
Coast Banksia

Hibbertia scandens (right)
Golden Guinea Flower

photos by Steve and Alison Pearson



Thuarea involuta

Bird's-beak Grass, creeping grass
of coastal habitats photo MRBG



Rostellularia adscendens

Pink Tongue, small clumping herb
photo Steve and Alison Pearson



Lobelia membranacea
Native Lobelia, creeping herb with
three-lobed blue flowers
photo by MRBG



Araucaria cunninghamii
Hoop Pine, common on islands &
headlands photo by MRBG

Three self-guided walks around the MRBG have been created for Botanic Gardens Open Day May 30, 2020. Brochures for all walks contain information on identification and interpretation of the plant species held within the MRBG Living Collection which were first collected by Banks and Solander.

The three walks consist of a tour around the Regional Forests showcasing plant species endemic to the CQCB, a short Botanic Endeavours walk and a Botanic Explorers long walk (designed to give a glimpse of the MRBG leading into the longer exploratory walk which incorporates more of the MRBG site). Each walk has a trail map with interpretation on plants collected by Banks and Solander.

An exhibition by the Botanic Arts Interest Group (BAIG) featuring plants collected by Banks and Solander will be held in the MRBG café art gallery. Children's activities themed around Banks and Solander collections, have been organised to include activities such as modern-day plant hunters. An activity sheet has been compiled to complement the Botanic Endeavour 250 trails.

Approaching the Great Barrier Reef

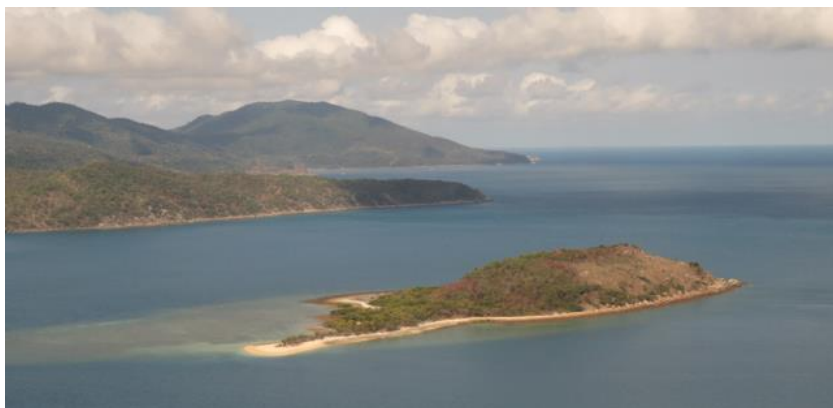
June 4 – 7: Continuing north through the Whitsundays Passage, past Cape Gloucester, Edgecombe Bay, Cumberland Islands, Cape Upstart, Cape Cleveland and Magnetical Isle to Halifax Bay and Palm Islands.

Still Searching for Refreshment

The Landing in Palm Isles – fourth east coast landing

Author & photos - John Elliott, Secretary Townsville Native Plants Queensland

Reading through the available information, I sensed a frustration on board the *Endeavour* that there was no 'refreshment' to be had of any kind. The Australian coastline was destitute, even of water (Thirsty Sound). So as they sailed through Halifax Bay a late afternoon thought of coconuts sparked a momentary excitement. I have described that in their original words, and even original spelling from their journals.



Halifax Bay view - Falcon Island to Palm Island photo Greg Calvert

The relative speed with which Cook made his way northward along the east Australian Coast left little time for exploration and the thought of 'refreshment' was clearly tempting. The maidens of Tahiti were only a distant memory! On June 4 the *Endeavour* was approaching Cape Gloucester, and despite the obvious temptations of the Whitsunday Passage, (named for the day the church commemorates that Festival), Cook did not wish to stop and lose the advantage of a full moon with which to sail at night;

'a number of small Bays and Coves on each side where ~~to all appearances~~ Ships might lay as it were in a Bason, at least so they appeared to me for I did not wait to examine them as having been in Port so lately and being unwilling to loose the benefit of a light Moon.'

[ibid James Cook]

On the same day Sydney Parkinson tells us that the *Endeavour*, *'cleared the straits and islands, and got into an open sea. The land upon the coast was full of very high hills, whose bowels are probably rich in ore; but their surface is poor indeed, being more barren, and fuller of stones, than any land we had seen.'* [Sydney Parkinson's *Journal of a Voyage to the South Seas, in His Majesty's Ship, The Endeavour*. London 1773]

By June 6, Cook had named both Cape Cleveland and Magnetical Island *'and the compass did not travis well when near it. they are both tolerable high and so is the Mainland within them and the whole appear'd to have the most rugged, rocky and barren Surface of any we have yet seen'*.

Not at all encouraging for any form of refreshment and it only got worse as;

'On the 7th, we were between a parcel of islands and the main. The main-land looked very barren and dreary: the hills upon it looked like a heap of rubbish, on which nothing was to be seen, excepting a few low bushes: but the islands made a better appearance. We saw a few people in canoes, striking fish, some smoke on the main, and some palm-trees' [ibid Sydney Parkinson]

Clearly the sight of Palm Trees triggered some excitement amongst the Gentlemen as Cook comments in his journal;

'In the PM we saw several large smooks upon the main, some people Canoes, and as we thought Cocoa-nutt Trees upon one of the Islands, and as ^a few of these nutts would have been very acceptable to us at this Time I sent Lieut^t Hicks a Shore with whome went M^r Banks and D^r Solander to see what was to be got, in the mean time we kep standing in for the Island with the Ship - At 7 oClock they returnd on board having met with nothing worth observing the trees we saw were a small kind of Cabbage Palm.'

And Joseph Banks was clearly just as disappointed;

'After dinner an appearance very much like Cocoa nut trees tempted us to hoist out a boat and go ashore, where we found our supposd Cocconut trees to be no more than bad Cabbage trees. The Countrey about them was very stoney and barren and it was almost dark when we got ashore; we made a shift however to gather 14 or 15 new plants after which we repaired to our boats.'

[The *Endeavour* Journal of Joseph Banks, 1768-1771 State Library of NSW]

From this brief excursion ashore is now memorialised the Palm Islands, which consist of some sixteen islands, of which twelve are named. The

Endeavour's exact course is still a matter of conjecture, but Cook tells us that they sailed between the mainland and islands which were;

'found to consist of a group of ~~small~~ Islands laying about 5 Leagues from the Main we being at this time between the two.'

The sketchy quality of the charts that are retained by the British Museum is indicative of the speed with which Cook sailed up the coast. But it would not be unreasonable to draw the conclusion that it could well have been Orpheus Island that they landed on, as the chart shows a distinct eastward tack towards a large island perhaps at Hazard Bay? This is conjecture, but it would certainly have been on the westward side of the group, which would rule out the main island, Great Palm Island, which despite being by far the largest does not seem to be well represented on the map.

So, all we know for sure is that the country was very stony and barren, and it was almost dark when they landed, so they only had time to collect a small number of plants



Pterocaulon serrulatum
Asteraceae

This common and widespread tropical daisy known as Ragweed, easily identified by the serrated winged stems, grows as an erect perennial up to about 90cm. tall. An unusual plant which has distinctive terminal compound inflorescence, solitary, globose, often mauve to purple. Grows in open country in full sun and often tolerates coastal conditions.

As for the cabbage trees, it is also difficult to know what could have caused the confusion. Cabbage trees, *Livistona drudei*, occur on the mainland but they do not grow on the beach front. I can only conclude that late in the day, with receding light they mistook *Pandanus tectorius* for the Coconut palm, and as of writing I can find no record that they had seen that plant on any of their other landings.



Jacquemontia paniculata
Convolvulaceae

This delicate annual twiner or trailer is native to tropical NQ, NT, WA and throughout SE Asia and tropical east Africa. In the dry Tropics this small twiner appears with the annual onset of the rainy season, and is fairly common in a variety of habitats, favouring full sun and grass habitats in open harsh country where it can be vigorous growing over small bushes. Numerous, delicate pale mauve flowers are borne in panicles on long stalks in the upper axils, making it a very attractive plant. The surviving Sydney Parkinson drawing is marked as having been made at 'Palm Island'.



Pittosporum ferrugineum ssp.
linifolium
Pittosporaceae

Rusty Pittosporum is a variable spreading small tree or shrub to 6m high, of coastal grasslands and islands, often with a rounded canopy of variable thick leathery leaves. Small five-petal white flowers display in terminal clusters, followed by orange capsule fruits which split to reveal red seeds in a sticky, red substance.



Clerodendrum floribundum
Lamiaceae

Known as Lolly Bush, this small tree to 6m, is widespread in drier open forests. The glabrous mid-green leaves contrast with terminal clusters of decorative tubular white flowers, followed by blue-black fruits surrounded by fleshy five-lobed red calyx.

(Type: J Banks and D Solander s. n. Bay of Inlets, Palm Island, Endeavour River, Qld. 1779.)

So, what happened to the new plants collected along the voyage? Happily, Banks gives us an idea of how the Gentlemen spent their days on board the *Endeavour*.

'Now do I wish that our friends in England could by the assistance of some magical spying glass take a peep at our situation; Dr Solander sett's at the Cabbin table describing, myself at my Bureau Journalizing, between us hangs a large bunch of sea weed, upon the table lays the wood and barnacles; they would see that notwithstanding our different occupations our lips move very often, and without being conjurors might guess that we were talking about what we should see upon the land which there is now no doubt we shall see very soon.' [Joseph Banks Journal, 3 October 1769/Banks *Florilegium Thames and Hudson* 2018 p12]

Dr Daniel Solander had been a student of Linnaeus, and then colleague and editor, before moving to England in 1860 to catalogue the botanical holdings of the British Museum according to the Linnaean system. He became a close friend to Joseph Banks and readily agreed to accompany him on the voyage to the South Seas.

Whilst Banks made a catalogue of plants collected enroute, *'in the order in which they were loosely placed in the drying books in which they were brought home'*, it was Solander who annotated the plants from New Holland. During the voyage it was he who roughly described the plants and whose MSS were finally bound as *'Plantae Novae Hollandiae'* in two volumes. Despite the best laid plans these results were never published as originally intended by Banks as a *'Florilegium'*. [Illustrations of the Botany of Capt. Cook's Voyage Round the World etc. James Britten, London 1900]

'The Australian plants, which formed the most important portion of the collection were never arranged for press in the manner of the foregoing, but a transcript of the rough MS was made, apparently by someone imperfectly acquainted with botanical terminology or unable to read the draft, as it contains numerous errors.' [ibid Britten]

So, bearing in mind all these pitfalls for the curious, it is safe to say that some of the plants collected on June 7, 1770 were: *Sesuvium portulacastrum*, *Sarcostemma australe*, *Pterocaulon serrulatum*, *Jacquemontia paniculata*, *Canavalia rosea*, *Clerodendrum floribundum*, *Pittosporum ferrugineum* ssp. *Linifolium* and *Knoxia sumatrensis*

Hinchinbrook and Cape Grafton

June 8 - 10: continuing north along the inside passage of the Great Barrier Reef, passing Hinchinbrook Island, Rockingham Bay, Dunk Island, the Frankland Islands and Fitzroy Island to the brief evening landing at Cape Grafton

Late Afternoon Landing at Cape Grafton

Fifth east coast landing

Author & photos – Dr. Robert Jago, Field Botanist who has made significant contribution to the study of botany in north Queensland; founding member NPQ Cairns

INTRODUCTION

The first ever scientific collections of plants from the Cairns region were made at Cape Grafton to the east of Cairns in the afternoon of June 10, 1770 by Joseph Banks and Dr. Daniel Solander. Specimens of at least thirty-five species of vascular plants in twenty-two families were collected in the short time they were ashore.



Tricoryne anceps

Family: Johnsoniaceae
The first scientific collection of the plant now known as *Tricoryne anceps* was made from Cape Grafton on June 10, 1770. Solander assigned the manuscript name *Anthericum anceps* to gatherings of this

species from Cape Grafton and the Endeavour River but he and Banks failed to publish this name. The genus *Anthericum* created by the Swedish botanist Carl Linnaeus in his *Species Plantarum* of 1753 is related to *Tricoryne*.

The genus *Tricoryne* created by the British/Scottish botanist Robert Brown (1773-1858) in his *Prodromus Florae Novae Hollandiae* of 1810 to cover three species of perennial herbs that he had collected from Australia and another species *Tricoryne anceps* collected from Cape Grafton and the Endeavour River by Banks and Solander in 1770. This later species is readily separated from all of the other six species currently described by its winged flattened branchlets that function as leaves.

The genus is derived from the Greek *treis* for three and *koryne* for club in reference to the shape of the fruit with the species epithet derived from the Latin *anceps* for two edged. Two specimen sheets of material collected from both Cape Grafton and the Endeavour River BM000990645 & BM001217333 held at the British Museum of Natural History, London form the type specimens for this species.

Tricoryne anceps is common and widespread in the Cairns Region and can be found on old sand dunes, sand ridges, rocky headlands, open woodland and open forest from near sea level to at least 1000 metres altitude. Easily cultivated and looks great in a hanging basket where it flowers profusely.



***Planchonia
careya***
Family:
Lecythidaceae

The Cocky Apple was first collected by Banks and Solander at Cape Grafton in 1770. They assigned the manuscript name *Eugenia crenata* to these Cape Grafton gatherings in the mistaken belief that they belonged to the

genus *Eugenia* in the Myrtaceae family. Their unpublished species epithet is derived from the Latin *crenatus* in reference to the rounded teeth along the margin of the leaf. The genus *Planchonia* created by the German/Dutch botanist Carl Ludwig Blume (1796-1862) in Lemaire's *Flore Serres des Jardins de L'Europe* in 1851 is named in honour of the French botanist Jules Emile Planchon (1823-1888).

For reasons unknown this species languished undescribed, until 1866 when the Australian/German botanist Ferdinand Jakob Heinrich von Mueller (1825-1896) described it as *Barringtonia careya* in his *Fragmenta Phytographiae Australiae*. The species epithet is in honour of the British missionary and botanist Dr. William Carey (1761-1834). The German botanist Reinhard Gustav Paul Knuth (1874-1957) transferred it from *Barringtonia* to *Planchonia* in *Das Pflanzenreich Heft* of 1939. A print from the copperplate engraving prepared by Robert Blyth, one of the eighteen engravers employed by Banks based on an outline drawing with colour reference notes by Sydney Parkinson and a watercolour by Frederick Polydore Nodder was produced in 1982 by Alecto Historical Editions as Plate 128 of *Banks' Florilegium*.

Cocky Apple is a common tree in the Cairns region in open woodlands along beaches and hillsides. The flowers open late in the afternoon and fall early the next morning unless overcast. Various aboriginal groups

throughout the range of this species used the fruit and on occasion the seeds for food. The bark was also used as a fish poison and the bark fibres used for cordage.

Solanum viridifolium

Family: Solanaceae



The type specimen for the shrub commonly known as Boolally was collected by Banks and Solander at Cape Grafton in 1770. They recognised it as belonging to the *Solanum* genus created by the Swedish botanist Carl Linnaeus (1707-1778) in his *Species Plantarum* of 1753 and

assigned it the manuscript name *Solanum cymosum* but failed to publish this name. The genus *Solanum* is derived from Latin *solamen* for solace or comfort possibly in reference to the reputed narcotic properties of the type species *S. nigrum* L. the Black Nightshade. Banks and Solander's unpublished species epithet is in reference to the cyme-like inflorescence with the species epithet created by the French botanist Michel Felix Dunal (1789-1856) in *Prodromus Systematis Naturalis Regni Vegetabilis* of 1852 being derived from Latin *viridi* for green and *folium* for leaf.

Specimens of this species gathered by Banks and Solander from Cape Grafton are now housed in herbariums throughout the world with specimens known to be housed at the British Museum of Natural History, London, Museum National D'Histoire Naturelle, Paris, Steere Herbarium, New York Botanic Garden, the National Herbarium of New South Wales, Sydney, and at the National Herbarium of Victoria, Melbourne. The illustration of this species produced on the Endeavour voyage by Sydney Parkinson appears never to have been published.

Solanum viridifolium is common in the Cairns region often present in disturbed rainforest and regrowth as well as in littoral vine thickets on old beach sands.

It is possible that a small number of the numerous specimens labelled only as from New Holland may also have been collected from Cape Grafton as many of these species are known to occur in the vicinity of

Cape Grafton. Cape Grafton was the second of their north Queensland collecting sites having previously collected on one of the islands of the Palm Island Group on June 8, 1770.

Thirteen of the nineteen species collected from Cape Grafton that are illustrated in *Banks' Florilegium* by Aleo Historical Editions are based on Cape Grafton material. Illustrations of a further six species by Sydney Parkinson remain unpublished. Cape Grafton is the type



locality for *Hoya australis* R.Br. ex Traill, and *Solanum viridifolium* Dunal. It also shares the type locality with other collecting sites for *Brunoniella acaulis* (R.Br.) Bremek., *Drosera serpens* Planch., *Spermacoce marginata* Benth. and *Tricoryne anceps* R.Br.

Collected specimens are widely travelled

Many of the specimens collected by Banks and Solander from the east coast of Australia in 1770 are widely travelled. Firstly they travelled on the *Endeavour* from Australia to England. Then a number returned back to Australia as part of a reference set of Australian plants used by Robert Brown in his circumnavigation of Australia (1801-1803) in the Investigator with Captain Matthew Flinders.

Since then duplicates have been widely distributed to various institutes throughout the world including several Australian Herbariums. They have also been back and forth from England to Australia on loan to numerous botanical researchers and this practice will no doubt continue for some time into the future.

Disaster!

June 10 – 18: The next eight days are the most traumatic of the entire voyage as Captain Cook and the ship's crew successfully make superhuman efforts to keep the *Endeavour* afloat after ramming under full sail, into the Great Barrier Reef during the evening of June 11. Then with amazing seamanship limping along the treacherous coastline for almost a week to find a suitable protected place to basically rebuild the *Endeavour* to allow the homeward journey.

The Endeavour River – June 18 to August 5

Sixth east coast landing

Author - Tony Roberts BSc Botany JCU, Curator Cooktown Botanic Gardens, ex Interpretive Officer Cairns Botanic Gardens.

The following text was taken from graphic displays Tony created for Cairns Botanic Gardens and Cooktown Botanic Gardens, and also with reference to: <https://www.abc.net.au/radionational/programs/earshot/the-story-of-australias-first-reconciliation/6773096>
<http://www.cooktownandcapeyork.com/do/history/cookslanding>



Cooktown & the Endeavour River

photo www hot getaways

Seven Weeks at Waalumbaal Birri

Two hundred and fifty years ago, a series of formative events for the modern nation of Australia took place on the south bank of Waalumbaal Birri, since renamed the Endeavour River.



Russ Higginbotham

This place, a remote, windblown estuary on Cape York, now the location of Cooktown, witnessed the first meaningful contact between indigenous Australians and Europeans, the first sharing of languages, the first notating of indigenous words, the first sighting and naming of the kangaroo, the first conflict, and the first steps to reconciliation.

Every year on the anniversary of the original 1770 landing day and in the same location, the local community with typical Aussie irreverence, stages an entertaining performance to recreate and commemorate this most significant historical event in Australia's history.



250th Anniversary commemorations cancelled

Unfortunately the planned commemoration of the 250th anniversary of the Endeavour's 1770 visit was suspended due to the Covid19 pandemic. However many of the activities will be rescheduled as part of the annual Cooktown Festival in June 11 – 20, 2021.

But how did Cook end up there in the first place?

On June 11, a clear moonlit night, 26 nautical miles [48 km] south-east of Cooktown the *Endeavour* suddenly struck the Great Barrier Reef. ...Cook names Cape Tribulation and writes in his journal ... "*because here begun all our troubles*". The *Endeavour* was severely damaged and it would be a traumatic 23 hours before they were able to haul the ship off the reef on a high tide. Every man on the ship including Cook, Banks, and Solander, worked three of the four workable pumps at a rate of 15 minutes per man on each pump until they were totally exhausted. To assist heaving her off the reef, much unnecessary equipment was thrown overboard. Then after fothering, or hauling a sail covered with oakum fibre, dung and sheep's wool under her hull, the

water was finally slowed and the leak became manageable with only one pump. It was to be one more week June 18, before they found a safe harbour, Waalumbaal Birri, to beach and repair the *Endeavour*.

Endeavour River

Cook spent forty-eight days here in 1770, the longest land base during Cook's East Coast expedition. The major task was to repair the *Endeavour*, but Banks and his team of botanists spent their whole time exploring and discovering many botanical and natural history wonders which were totally new to science at the time. Banks and Solander found a large portion of the East Coast botanical collection while here. They discovered many new species of insects, fish, bugs and butterflies. They saw, for the first time in this country, a crocodile, dingo, flying fox, and many species of lizards, snakes, fish and insects. The crew fished and collected giant clams and turtle for food. They also found green vegetables and yams to supplement their diet.

First Contact

The *Endeavour* had been beached here for almost a month, before the local Bama people made contact. They have an oral history of their ancestors coming from the west, in the forms of masked plover and wallaroo, then travelling to the east, and while on this journey the spirits became white. The Bama people were still awaiting their return, and they may have thought it was possible that Cook and his crew were those returned spirits, so they would have just waited and observed.

Recording Language and a Kangaroo

Six meetings took place between the ship's crew and the local Bama people. Banks wrote that they "*became good friends*" and they had written down over 130 words of the Guugu Yimithirr language, the very first record of any Aboriginal writing. One of those words was for a creature which is synonymous with Australia today - a Bama man was asked the name of the mysterious bouncing animal they sighted. He said '*gangaroo*' but Parkinson wrote down '*kangaroo*' under his sketch. The animal was shot by Lieutenant Gore, eaten by the officers and gentlemen, and Banks examined the pelt and took it back to a museum in London where it is believed to have been destroyed during World War 2.

Conflict and Reconciliation

Not long before the *Endeavour* was ready to sail there was conflict. For the first time the Bama men had been invited on board the ship, and they were concerned to find twelve live turtles on board. The next day ten unarmed men came and demanded that two of the turtles be shared with the local people. Cook refused and this really angered the men, ending in an altercation.

They were chased away after twice setting fire to Cook's camp, burning all around the camp and killing a suckling pig. Cook wounded one man with musket shot and followed the group, picking up some of their spears on the way. He caught up with them near what is now known as Reconciliation Rocks. An older man came out from behind some rocks, he was carrying a spear with the tip broken off - a symbol of peace. Cook took this to mean that the local people did not want any more fighting. He writes in his journal that "*we now return'd the darts we had taken from them which reconciled every thing*". After that, the two parties barely communicated, and ten days later, the *Endeavour* set sail. It is believed that was the first recorded act of reconciliation in Australia's history.

The journals say that as they departed the harbour, that night all the hills around the Endeavour River were put on fire, most likely to cleanse the area of what had happened there.

The Plant Collection

The scientific team who joined Joseph Banks on the *Endeavour* included Daniel Solander (scientific advisor), Sydney Parkinson and Alexander Buchan (illustrators). Banks supervised the pressing and storage of plant specimens and maintained a detail travel diary. Solander catalogued the collections, adding 313 pages for those specimens sourced in Cooktown.

Just over a week after arriving in the Endeavour River, disaster struck. Water flowed to the stern of the ship and flooded the space where Banks' collection was stowed. Some specimens were destroyed by the flood, but Banks managed to save many by drying them in the sun on the bank of the river.

During the seven weeks that they spent in the area, Banks and Solander collected more than 460 plant species. Sydney Parkinson drew each of Banks' and Solander's specimens aboard the *Endeavour*. He made notes of their colours, and painted some of them in watercolour.

Once he returned to London, Banks engaged a number of watercolour artists to paint Parkinson's drawings. He also hired engravers to create copperplate engravings of the completed watercolours. The Florilegium was not printed while Banks was alive and the plates were left to the British Museum. In the early 1900s the "Illustrations of Australian Plants" was printed from the plates in black ink. A full-colour edition of the Florilegium was published between 1980 and 1990 in 34 parts by Alecto Historical Editions and the British Museum (Natural History). Only 100 sets were printed.

Nature's Powerhouse, situated within Cooktown Botanic Gardens, holds and displays Florilegium prints of plants collected by Banks and Solander from the local area.

Cooktown Botanic Gardens grows a sizeable collection of plants representing those species collected by Banks and Solander in the Cooktown area. The long term aim of the Gardens is to grow as many species from the list as possible.

A Botanical Treasure Trove

The following photo pages of specimens illustrate the diversity of the species that were collected in the area around the Endeavour River. There are few detail records mapping the full extent of this exploration, but given the extended time spent on shore while the *Endeavour* was repaired, and the large number of specimens collected, it is certain that Banks and Solander carried out a comprehensive investigation of the local area.



Dillenia alata

Golden Guinea Tree or Red Beech, found in wet coastal lowlands and rainforest, distinguished by the rusty red papery bark, fleshy apple green leaves, large yellow flowers and decorative fruits.



Glenn Leiper

Erythrina vesperilio
Bats Wing Coral Tree - in open and monsoon forest across northern Australia to north-east NSW



Ixora timorensis
Native Ixora – tall dense understory shrub in beach forest and drier seasonal rainforest



Melastoma malabathricum ssp. *malabathricum* - Native Lasiandra, widespread across northern Australia from rainforest to heath



Dendrocnide moroides
Stinging Tree – often in disturbed areas of lowland & upland rainforest from FNQ to NSW



Nymphaea gigantea
Giant Water Lily – common in coastal wetlands and lagoons across tropical Australia



Cordia subcordata
Cordia or Sea Trumpet - decorative small tree restricted to northern monsoon & beach forest



Scaevola taccada
Beach Scaevola - decorative shrub confined to beaches just above sea level across northern Australia



Cochlospermum gillivraei
Native Kapok - widespread in coastal open forest and rainforest margins, often on rocky ground



Tony Roberts

Passiflora aurantia var. *aurantia*
Red Passion Flower - a decorative slender vine of monsoon forest and vine thicket from FNQ to NSW



Deplanchea tetraphylla
Golden Bouquet Tree - attractive tree widespread in rainforest and monsoon forest in FNQ



Tony Roberts

Morinda citrifolia
Cheese Fruit - common across northern Australia just above high tide mark and in monsoon forest



Glenn Leiper

Hibiscus meraukensis
Merauke Hibiscus - common across northern Australia to SEQ in open forest and monsoon forest

Cape York and Beyond

The voyage north from the Endeavour River was potentially as dangerous as the route they had already experienced. After the Endeavour crossed the bar at the mouth of the river on August 5 she still had to stand off outside the harbour due to strong wind and gales,



finally departing on August 10, 1770, sounding all the way. Captain Cook was required to use all of his navigational skills to chart a safe passage through the unknown waters of the inside passage between the Cape York coastline and the islands and shoals of the Great Barrier Reef.

He used every opportunity to land on various islands to take advantage of vantage points in order to observe suitable deep channels, as well to search for food and water. Joseph Banks and Daniel Solander were always part of each shore landing party adding new botanic specimens to their substantial collection. There were to be another seven landings before the Endeavour finally left these waters for a refit in Batavia.

Lookout Point, Lizard Island & Eagle Island

August 10 - 13: Although sailing from the Endeavour River on August 5 strong gales and weather conditions forced the *Endeavour* to stand-off outside the river mouth for five days. Captain Cook then sailed an irregular but carefully navigated route north to avoid islands and reefs. Past Cape Flattery a landing was made at Lookout Point August 11 where Banks records "*We resolvd to stay upon the Island all night and at day break in the morn send the boat to sound one of them [a channel], which was accordingly done. We slept under the shade of a bush that grew on the beach very comfortably.*"

Then a short sail to the north-east for the next landing August 12 on a coral cay named Lizard Island where Cook records "*went to the highest hill on the island, named the island after the lizards or monitors*".

On August 13 Banks commented "*In our return we went ashore upon a low Island where we shot many birds; on it was an Eagles nest the young ones of which we killd, and another built on the ground by I know not what bird, of a most enormous magnitude*". Consequently this was named Eagle Island.



Barringtonia calyptata
Mango Pine or Cassowary Pine – very decorative, also useful timber tree in lowland rainforest and beach forest in FNQ



Myoporum acuminatum
Coastal Boobialla - tall shrub of mangrove forest edges, dark mid-green glossy leaves and clusters of small decorative white flowers



Tabernaemontana orientalis
Red Bush Apple – spreading shade tree of open forest, rain forest margins and beach forest across northern Australia



Melaleuca cajuputi ssp *platyphylla*
Cajuput – a paper bark ti-tree, silvery foliage, white/green flower spikes, widespread across northern Australia and SE Asia.

Turtle Group, Providential Island, Possession Island & Booby Island

August 17 - 23: Continuing north, landings were made on the Turtle Group of coral cays and along Providential channel near Cape Grenville, basically searching for food, as Banks records "*safe at an anchor it was resolvd to send the boats upon the nearest shoal to search for shell fish, turtle or whatever else they could get*".

After another five days passing Shelburne Bay, Temple Bay, Cape Grenville and Cape York, the *Endeavour* anchored at Possession Island August 22, where at the top of the highest hill Captain James Cook "*in the Name of His Majesty King George the Third took possession of the whole Eastern Coast . . . named New South Wales*"

The final landing August 23 was on Booby Island west of Thursday Island in the Torres Strait, primarily to source food for the onward voyage to Batavia. Here Joseph Banks records his last collection of Australia's unique plants "*abreast of Booby Is at noon - shot boobies till our ammunition was quite expended; I myself Botanizd and found some plants which I had not before seen.*"



Neofabricia myrtifolia

Decorative open shrub, endemic to FNQ in coastal open forest, heath, shrub land & rainforest margins



Syzygium suborbiculare

Red Bush Apple – spreading shade tree of open forest, rain forest margins and beach forest across northern Australia



Capparis lucida

Coast Caper – attractive shrub of beach forest, vine thickets and monsoon forest across northern Australia to northern NSW

HM Bark *Endeavour* - landing places 1770

- 19 April: Point Hicks – first sighting of Australia
- 1 **29 April: Sunday - Botany Bay**
First landing in Australia
- 16 May: Point Danger passed enters Queensland waters
- 2 **23 May: Thursday - Bustard Bay, Round Hill Head**
First landing in Queensland
Town of Seventeen Seventy
- 29, 30 May: ashore both days
Quail Island or Long Isle, enters Thirsty Sound
- 4 7 June: - Palm Island
- 5 10 June: Cape Grafton
Cook: anchored 2 miles from shore, (between Cape Grafton & Green Island?), Cook, Banks & Solander go ashore, no suitable water, sailed on at midnight.
Banks: at anchor near Green Island? He goes on to describe hitting the Barrier Reef later that evening.
11 June: *Endeavour* strikes the Great Barrier Reef
Cape Tribulation named
After the *Endeavour* struck the reef, 23 hours passed before she was floated off; stores, guns & equipment jettisoned;
- 6 **18 June – 4 August: Endeavour River**
48 days that changed history – repairing the Endeavour

5 August: *Endeavour* sails from the Endeavour River
Crossed the bar at the mouth and had to stand off outside the harbour due to strong wind and gales until
10 August: finally departs north, sounding all the way
- 7 11 August: Lookout Point - sights Howick Islands
- 8 12 August: Lizard Island
(coral cay on Reef northeast of Cape Flattery)
- 9 13 August: Eagle Island
(coral cay Reef adjacent Lizard Island)
- 10 17 August: Turtle Group
(coral cays northwest of Lizard Island)
- 11 17 August: Providential Channel
- 12 **22 August: Possession Island - near Cape York**
At the top of highest hill on behalf of King George III, Cook proclaimed taking possession of the whole eastern coast, to be named New South Wales.
- 13 23 August: Booby Island – (west of Thursday Island)

Gathering Plants and Naval Intelligence at Botany Bay

Margaret Cameron-Ash is a lawyer, a former visiting fellow at the University of New South Wales. Her most recent publication is *Lying for the Admiralty: Captain Cook's Endeavour Voyage*, 2018, Rosenberg Publishing.

The Winter issue of "Australian Plants", contains an interesting paper by Dr. Doug Benson titled "*Joseph Banks and Daniel Solander at Botany Bay: How serious was the science in 1770; where did they actually go?*" But where did the *Endeavour's* chief non-botanist – James Cook – actually go? This should not matter, according to Benson's title. Nonetheless, Benson has allotted a page of his paper to fulminate against my suggestion of Cook's whereabouts, so I should respond.

Benson has made a courageous decision in attempting to trace Cook's movements at Botany Bay. Most historians have given up because his journal entries are so vague. In 1924, the historian C.H. Bertie wrote: "We cannot trace the movements of Cook accurately during this week, as his record is indefinite". Nor is it easy to correlate Cook's record with those of his companions, as Dr. Maria Nugent writes "It is sometimes difficult to get Cook's and Banks's journals to correspond with each other".

Reading Cook's journal, his constant assertions of "nothing to see here" made me suspicious. He had already concealed the insularity of Tasmania and of Stewart Island in New Zealand, telling his readers (i.e. the French) that both were peninsulas, thereby labelling them unusable as potential military bases, protected by a moat. In omitting strategically valuable material from his journal, Cook was following a routine form of self-censorship. The French navigator, Lapérouse, did the same thing in 1787 when he was instructed to spy on Manila and Formosa.

What strategically valuable feature did Cook find at Botany Bay that was worth concealing from Britain's rivals? Certainly not the bay itself. It was shallow and exposed, making it useless for military operations and little better for commerce. Consequently, Cook left the botanists to do their job, while he got on with his job as an employee of the Royal Navy. His duty as a naval captain on a voyage of discovery was to find seaports that promised shelter and refreshment at least and, at best, military and commercial capability. So Cook looked further afield and did what he always did. He climbed a hill (with a couple of trusted crewmen), found the deep natural harbour of Port Jackson, and concealed it – very successfully.

Fortunately, there is good documentary evidence of Cook's discovery. As Benson says, before the First Fleet left England in 1787, its commander – Arthur Phillip – wrote that he knew that there were "several islands" in the harbour "a few leagues to the northward" or, as the Home Office put

it "in the neighbourhood of Botany Bay". How on earth could Phillip have had prior knowledge of "several islands" in an inlet which the *Endeavour* never entered?

Most historians sweep Arthur Phillip's document under the carpet because they find it impossible to explain. Their retreat is not just a loss for history-lovers. It has left a gaping hole in Australian historiography. However, three of us have tackled the problem. The first was George Barton, elder brother of our first Prime Minister, Edmond Barton. Writing in 1889, his explanation was that Phillip was mistakenly thinking of Port Stephens. But this explanation doesn't work, because Phillip's subsequent actions indicate that he knew that the "several islands" were much closer to Botany Bay than Port Stephens is.

The second was the renowned Professor Alan Frost. Writing in 1987, Frost agrees that Phillip was referring to Port Jackson. He suggests that some member of the ship's company must have spotted the islands from the deck of the *Endeavour* as she sailed past Sydney Heads. However, this doesn't work either, because you can't see 'round corners'.

The third person to tackle the problem is me. After dismissing drones and helicopters, I asked a friend to shinny up the mast of the tall ship, *James Craig*, when it was standing off The Gap and he could look over the lower ridge, but he saw nothing. Then, when I was attending the Moonlight Cinema in Sydney's Centennial Park, I realized that Cook had walked overland from Botany Bay to Port Jackson, as hundreds of bushwalkers do every year.

There is other evidence that Cook saw Sydney Harbour. After leaving Botany Bay, Cook spent the next 17 days travelling non-stop to the Tropic of Capricorn. Notwithstanding the deficiencies of Botany Bay, he sailed past Port Jackson with all its promise; Broken Bay with its three generous arms of Pittwater, Brisbane Water and the Hawkesbury River; Newcastle Harbour at the mouth of the Hunter River; Port Stephens; Port Macquarie; Coffs Harbour; and the entrances to the Clarence and Richmond Rivers. Many of these are fine natural harbours with features far superior to Botany Bay in terms of depth, shelter, fresh water, vegetation, food and soils. They surely required investigation after the shortcomings of Botany Bay. Yet the *Endeavour* entered none of them. The brilliant Captain Cook had found what he wanted and there was no need for his crew to see anything more.

As Benson says, the route is feasible. It is also fun, as we found when we commemorated Cook's overland walk in May, found at: www.captaincooksociety.com/home/detail/waltzing-to-sydney-harbour-with-captain-cook

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ANPSA Biennial Conference postponed to September 2022

Dear members and friends,

The organising committee has made the difficult decision to postpone the September 2021 Biennial Conference to September 2022.

While heartened by the reductions in transmission of Covid-19 around Australia, planning for the conference has continued to be difficult due to:

- Our members tending to be from the 'higher risk' category and uncertainties about a vaccine
- Challenges with travel given changing restrictions, particularly from other states and internationally
- The changing social distancing levels and requirements at the conference and on buses, with flow-on impacts to tours, excursions and of course costs
- Our view that a digital conference is not a good alternative given how important social interaction and exploring the region's flora are at these conferences.

The decision to postpone has been done in consultation with the ANPSA Executive and Chris Long, APS Victoria, Coordinator of the 2023 Biennial Conference.

The new dates for the Conference are: Sunday 11 September to Friday 16 September, 2022. We would like to thank our sponsors and partners for their ongoing support.

We are keen to host you all in Kiama and showcase the beautiful Illawarra area and beyond and hope you will join us in 2022.

Kind regards,

Biennial Conference Committee

Strategic Sponsor



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