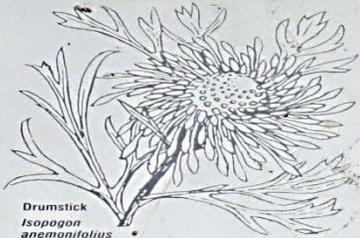


# Visitor attitudes and erosional impacts on the Coast Walk

## THE COAST WALK



### Hardy heathland



Drumstick  
*Isopogon*  
*anemonifolius*

Plants along the coast are continually exposed to harsh wind and salt spray.

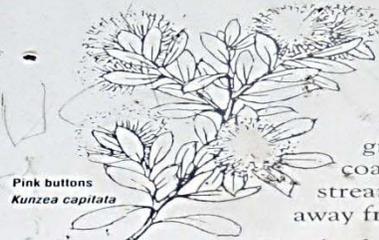
Look closely and you may notice some of the adaptations that the plants have developed over time to cope with the harsh conditions that they live in.



Native fuschia heath  
*Epacris longifolia*

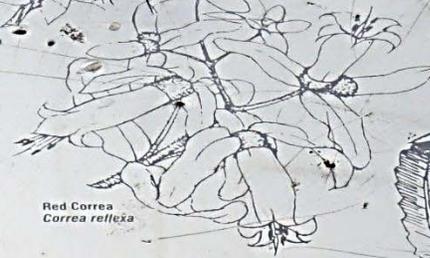


*Hibertia stricta*

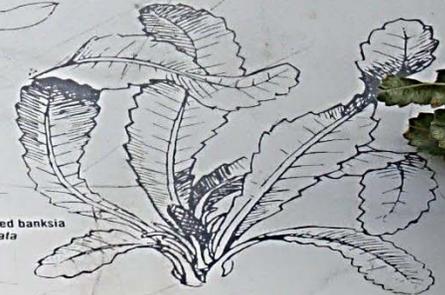


Pink buttons  
*Kunzea capitata*

Some plants grow low to the ground to present less surface area to the wind. The plants growing nearest to the shore are usually the shortest, and you will notice that the vegetation begins to grow taller as you move away from the coast. Other plants, like banksias, streamline themselves by growing bent over away from the prevailing wind.



Red Correa  
*Correa reflexa*



Serpated leaved banksia  
*Banksia serrata*

Heath plants often have small, sharp leaves with a thick, waxy covering that retains moisture and minimises the entry of salt into the plant.

ROYAL NATIONAL PARK

NATIONAL PARKS AND WILDLIFE SERVICE

Research undertaken as part of Master of Science degree at the University of Sydney, School of Geosciences under the supervision of Associate Professor Deirdre Dragovich.

# Mapping our scientific past through graven images



# Effective management key to sustainable protected areas

- National Parks and other such protected areas preserve native fauna and flora, and provide recreational opportunities for visitors.
- Effective management is vital for successfully carrying out these mandates.
- Research inputs can help to develop new approaches for improved achievement of conservation objectives and to better visitor satisfaction.

# Erosion a major concern in protected areas

- Trails are access networks in a Park. Park employees used them for management activities and visitors use them for recreation.
- Eroded and degraded trails threaten the ecological integrity of Parks and diminish their recreational, aesthetic, cultural and educational value.
- Erosion of access track is an adverse recreational impact that nags most Park managers the world over.

# Recreational impact

- When Park visitors access trails they trigger trampling-generated erosion, involving vegetation damage, soil compaction, widening of existing trails, and/or development of informal pathways.
- Problems of recreational use in protected areas are known to be a function of user numbers and visitor attitudes and behavior.

# Gullied section with planks – additional new path on left-hand-side



**Multiple tracks – central hollowing to 80cm  
with paths on either side**



# Aesthetic values of site leading to eroded and multiple pathways



# Hypothesis

Sections of the track that naturally have high rates of erosion on them would experience relatively higher loss of soil resulting from trampling driven accelerated rates of erosion;

and such areas would exhibit higher degree of use driven degradation since walkers avoid uneven and uncomfortable walking surfaces.

# Visitor demographics and motivations

- This research surveyed 100 users of the 26-km long Coast Walk in the Royal National Park.
- Most visitors to the Park were from Sydney and near regions (88%).
- Many visitors were young adults (37%), and a high proportion of them had tertiary qualifications (66%).
- Visitors were mainly attracted to the Park for the beauty of nature (77%) and the desire to exercise (49%).

# Table of important findings

No.	Findings	%
1.	International Tourist	11
2.	First Time Visitors	38
3.	Most visitors visit the Park with their friends in groups of 2, 3 or 4 persons.	73
4.	The other important motivations which bring visitors to the Park include “to relax with family or friends”, and because visitors feel “it’s a peaceful spiritual experience”.	47 and 43
5.	Most visitors walked for more than 3 hours.	61

## Investigations directed towards understanding visitors preferred managerial settings

6.	Most visitors like “Signs” and “Pathway” indicators.	85 and 82
7.	Most visitors do not want bicycles to be allowed on walking tracks.	89
8.	A significant number of visitors indicated that they think the track is degraded and occasionally maintained.	34

## Investigations directed towards understanding the reasons leading to track degradation

9.	Most visitors did not want the track to be wider.	74
10.	Most visitors did not want the track to be direct or shorter.	94

## Visitors and trampling patterns

- Most visitors noticed erosion on the trails: 91% of 'Frequent' visitors were aware of erosion and 75% of 'First time' visitors.
- Most visitors (77%) described the trail as occasionally rough and with boulders, but more or less safe to walk on.
- Almost half of the users (43%) indicated that they have sometimes trampled vegetation in their attempt to avoid uneven walking surfaces.

## Conclusion and Rationale

- A well-maintained, well-indicated and even-surfaced walking track will be perceived as safe and comfortable to walk on, thereby reducing erosion-related degradation of pathways and damage to surrounding vegetation.
- Aesthetic values would be conserved if tracks are not allowed to degrade beyond a certain point.