Plants of the Northland Coast

Plant adaptations for a coastal environment

- The coastal fringe is a particularly tough environment for plants. This area receives strong salt laden winds and a high amount of sunshine hours. Soils are often sandy and do not hold a lot of water. Sand dunes and their soils move in the strong winds. Coastal headlands, bluffs and cliffs are also light in strong soils. Plants that survive on the coast need special adaptations that help them reduce water loss and survive in dry conditions.

Plant adaptations for a coastal environment

- Some adaptions plants have to help them survive in this tough coastal environment include:
- Glossy leaves formed by a waxy cuticle that stops loss of water and reduces salt burning.
- Small leaves reduce leaf area and so reduce evapotranspiration
- Many plants have horizontal runners that scramble through the shifting sand
- A large root volume to capture all available water
- Leaves that roll up in dry conditions

Taupata Coprosma repens

- This shows the glossy leaves that reduce evapotranspiration and salt burning. This plant grows on coastal cliffs

Parapara Pisonia brunoniana

- A rare plant in the wild
- Found on coastal headlands
- Produces sticky seeds that trap small birds and insects that then rot and provide the plant with a natural fertiliser.
- Glossy leaves

Karaka Corynocarpus Laevigatus

- The glossy leaves reduce salt burn

Pseudopanax lessonii Coastal 5 finger

- Glossy leaves

Karamu Coprosma lucida

Whau Entelea arborescens

- Whau is a large leaved coastal plant
- The lightest wood in the world
- Maori used the wood for floats on their fishing nets

Coprosma acerosa

- This Coprosma is found scrambling through the shifting sands.
- Its small leaves and tough stems make ideal adaptions for the hot dry sand dunes.

Leafless Broom Carmichaelia aligera

- Reduction of leaf area by having photosynthetic stems which reduce water loss

Puka Meryta Sinclarii

- From the offshore Islands
- Large leaf creates a tropical feel in The Northland garden
- Tough glossy leaves

Hebe speciosa

- Found at Hokianga and The Bluff, Dargaville.
- It has become common in ornamental gardens

Kowhai Sophora microphylla

- Common on Coastal Headlands in Northland.
- New Zealand's National Flower
- Creates a visual symphony in Spring and heralds the arrival of warmer days.

Pseudopanax gilleseii

- Northland is a hotspot of Biodiversity
- The 3 fingered 5 finger is endemic to Whangaroa and little barrier island

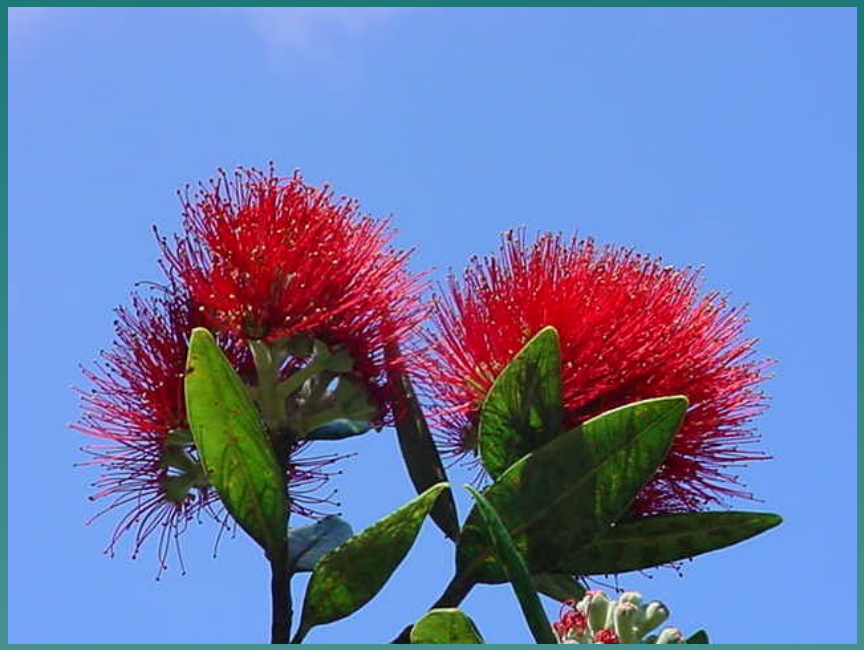
Manawa Avicennia resinifera Mangrove

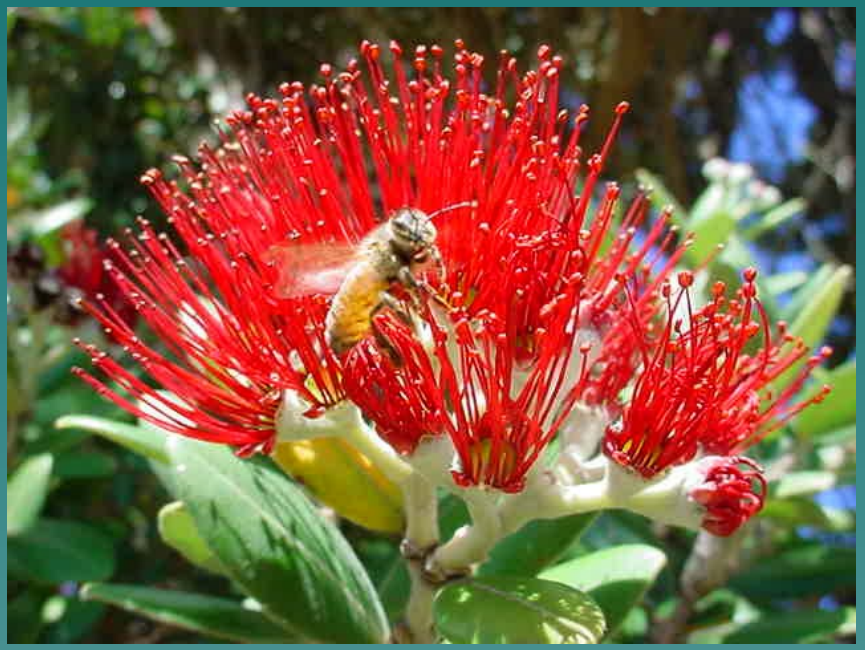
- Mangroves create an environment unique to the North

Pittosporum crassifolius Karo

- Common in coastal gardens and used as hedges or shelter.
- The furry leaf bottoms trap water

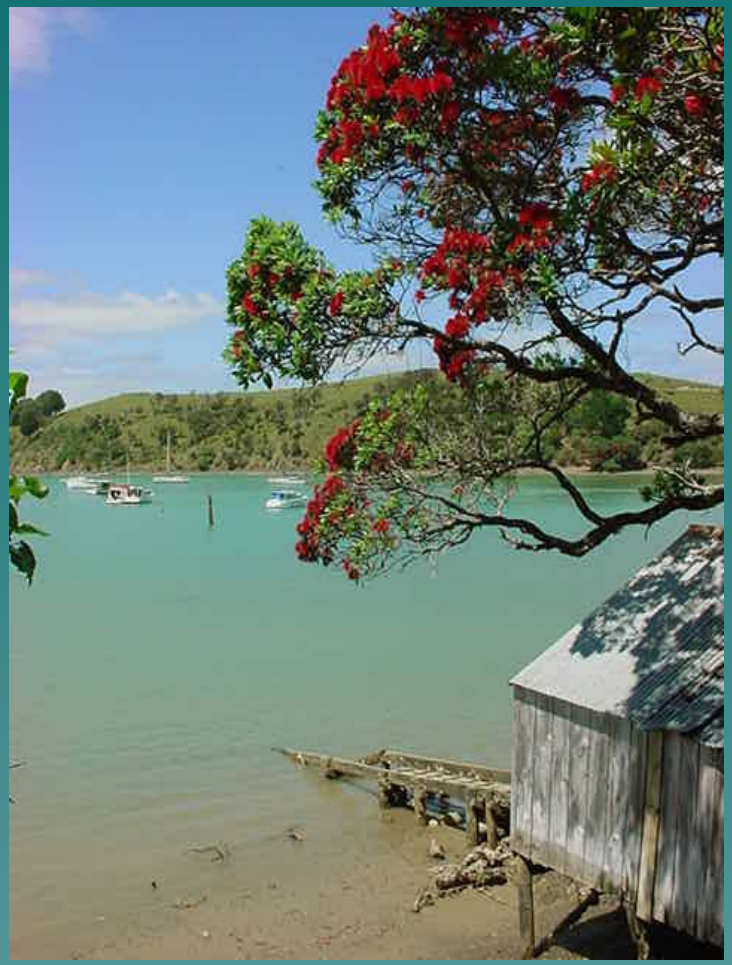
Pohutukawa
Metrosideros excelsa

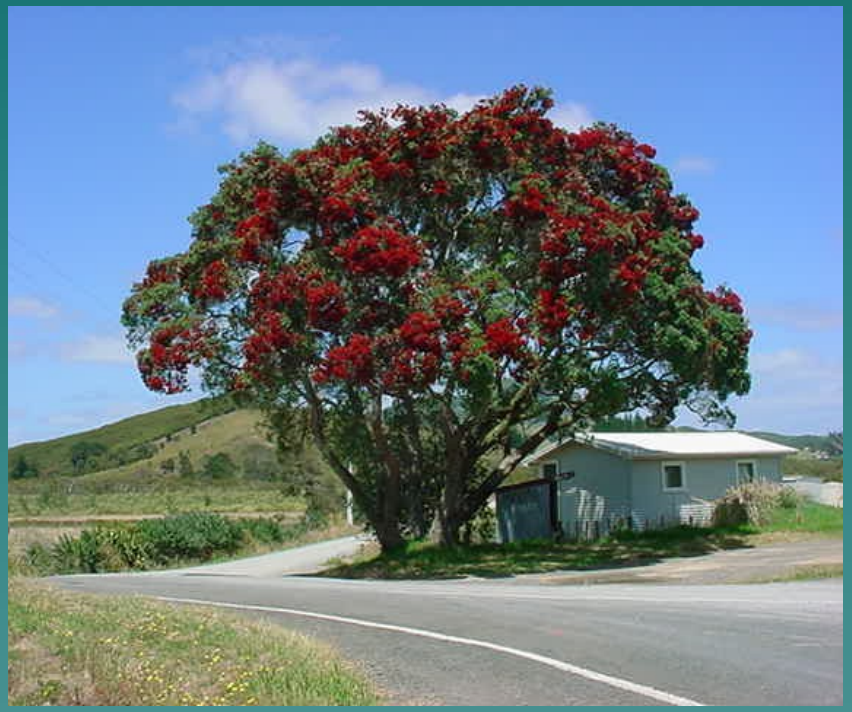




- Pohutukawa flowers at christmas and creates New Zealands distinctive Christmas colours

Pohutukawa
Metrosideros excelsa





Pohutukawa Metrosideros excelsa

- Seeds of pohutukawa are found within woody capsules

Muehlenbeckia australis

- This plant has a tough wirey horizontal stem that runs through coastal gravels

Ngaio Myoporum laetum

- The leaves of Ngaio have glands that are thought to secrete excess salt

Spinifex

This hardy grass has seedheads that are dispersed as ‘tumble weeds’ that driven by the wind,cartwheel along the beach.

The leaf rolls up in dry conditions. This reduces leaf area to conserve water.

The leaf hairs trap moisture

Ice plant

This succulent stores water within its tough triangular leaves. Found throughout the Pacific.

Pingao Desmoeschenus spiralis

Pingao Desmoeschenus spiralis

- This plant is now rare in the wild.
- It is a sand binding plant that holds the shifting dunes together.
- It has rope like horizontal stem that runs through the sanddunes.
- Excellent for fine weaving in tukutuku panels

Pingao Desmoeschenus spiralis

Links

- Welcome to Manaaki Whenua - Landcare Research
- http://www.gen.com/bigjude/Tuatara.html
- www.whenu.com/pop_up/CJ_verizon01_popup.htm
- http://www.infogarden.co.nz/lc_main.ht
- http://www.naturespace.co.nz/species.h