

Estuarine Wetland

salt marsh



VEGETATION TYPE 22

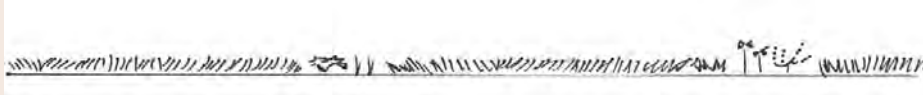
Regional Ecosystem: 12.1.2

Marine Couch (*Sporobolus virginicus*)
Grassland on Marine Deposits

COMMUNITY STRUCTURE

Vegetation type 22 is comprised of a patchy to more or less continuous grassland characterised by the presence of large to continuous patches of Saltwater Couch (*Sporobolus virginicus*) up to 50cm in height and providing between 50% and 80% ground cover on mudflats or adjacent marine plains. They are generally tidally influenced and periodically inundated by saltwater. Isolated marine herbs and samphire bushes may also be present. If present, other marine trees and shrubs (such as mangroves) are typically isolated and generally small in height.

Ground



Grass/samphire 0-0.5m
Mid-dense to dense
50-80% cover

Source: Searle, 2019 (derived from Ryan et al (2019); plus review of all Gold Coast City marine wetland sites)

Characteristic plant species

Approximately **37 native plants species** have been recorded for this vegetation type. Characteristic plant species for this vegetation type are listed below. Dominant (most numerous) species are shaded. Plants in blue text are listed as [Wetland Indicator Species](#) in DES Flora Wetland Indicator Species List and are adapted to and dependent on wetlands.



Indicates species is a City-wide significant species

GROUND LAYER

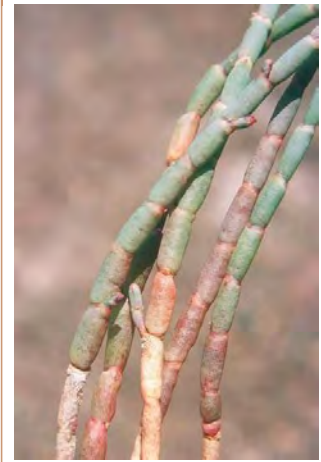
Plant types can include marine grasses, graminoids (non-woody plants with a grass-like morphology), forbs (non-woody, broad-leaved, flowering plants) and samphires (succulent, herbaceous plants that grows in high salinity environments).. Climbing vines generally not present.



Saltwater Couch
Sporobolus virginicus
GRASS (SPREADING)



Austral Seablite
Suaeda australis
SAMPHIRE



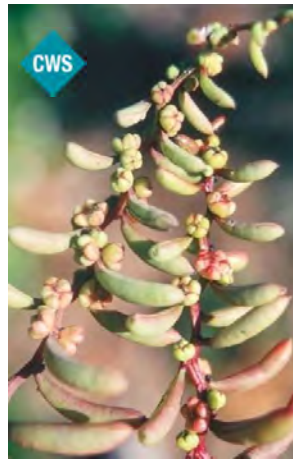
Beaded Samphire
Sarcocornia quinqueflora
SAMPHIRE



Fuzzy Rush/ Rusty Sedge
Fimbristylis polytrichoides
GRAMINOID (SEDGE)



Blackseed Samphire
Tecticornia pergranulata
subsp. queenslandica
SAMPHIRE



Jellybean Sea Blite
Suaeda arbusculoides
SAMPHIRE



Streaked Arrow-grass
Cynogeton striata
GRAMINOID (SEDGE)

City-wide significant plant species



The City of Gold Coast recognises species which are locally significant as City-wide significant (CWS) species. These species are important because they may be threatened, restricted to the Gold Coast, or at the edge of their geographic range. In addition to characteristic species identified above as CWS species, the following CWS plant species may also be present in this vegetation type.



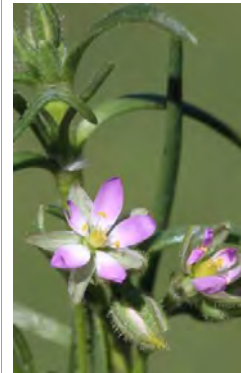
Pencil Orchid
Dockrillia teretifolia
EPIPHYTE



Coastal Vitex
Vitex trifolia var. *trifolia*
SHRUB/SMALL TREE



Enydra
Enydra woollsii
FORB



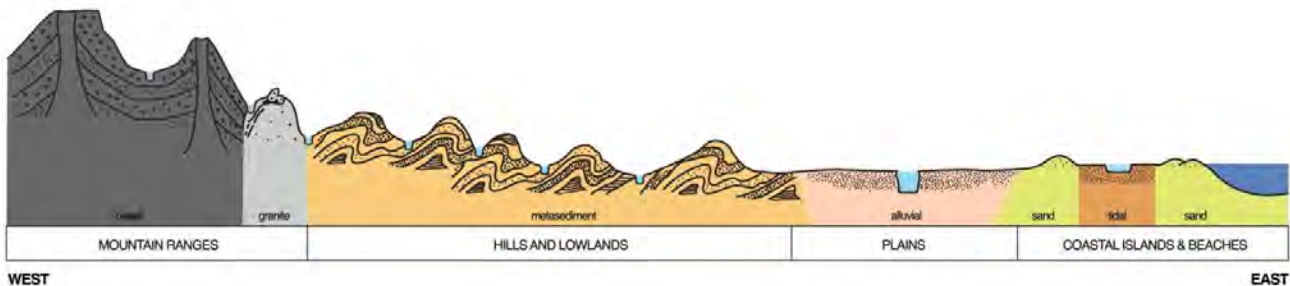
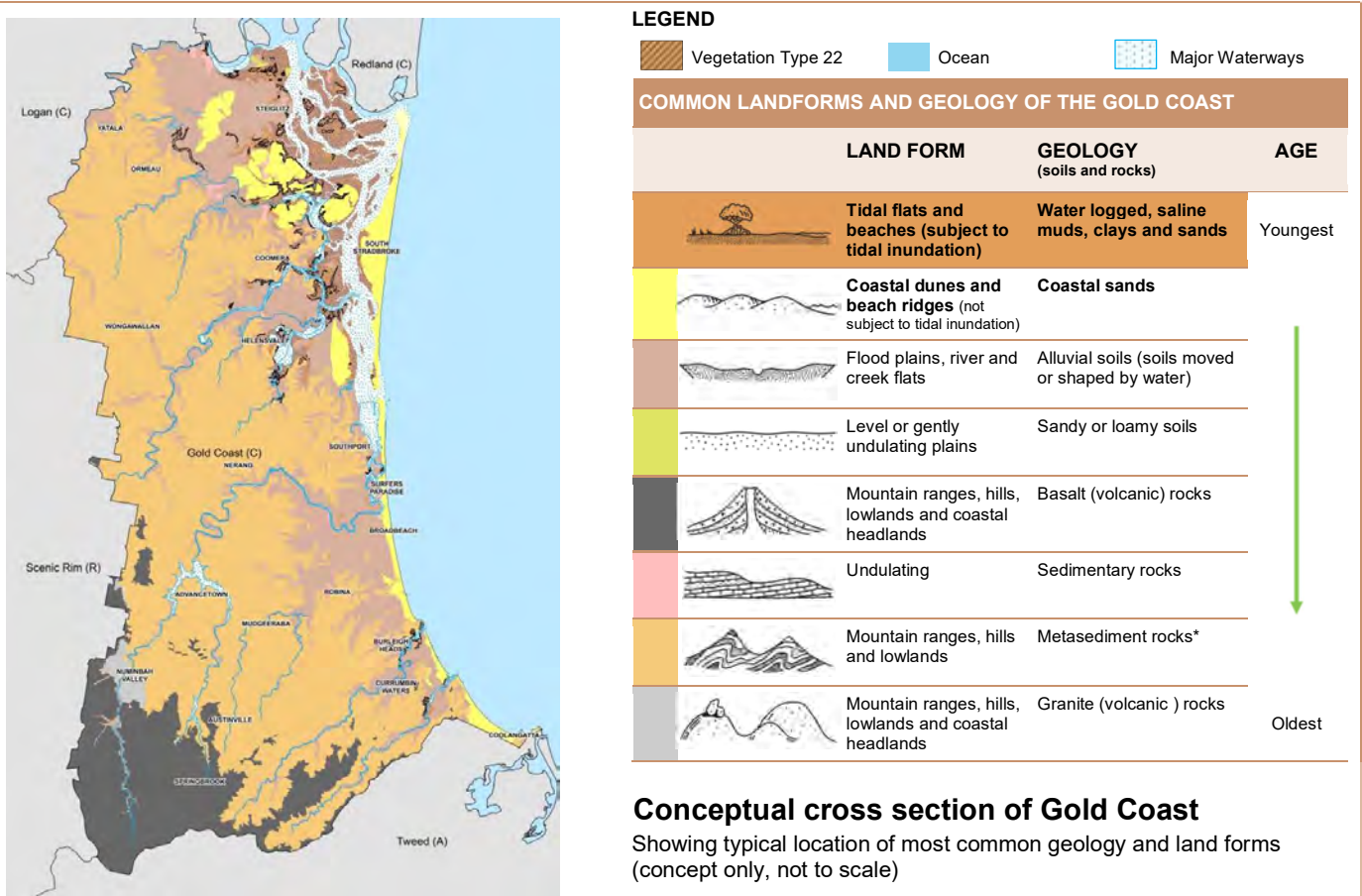
Lesser Sea-Spurrey
Spergularia marina
SAMPHIRE

OCCURRENCE

Native plants occur in vegetation communities, which are consistently associated with a particular soil type, landform (shape of the land, e.g. hills or plains) aspect (position on a slope in relation to the sun) and climate.

Sporobolus virginicus grassland often occupies the outer or higher marine intertidal zone, and is typically slightly more elevated than adjoining mangroves. Not all areas of this grassland are mapped, with some areas too small to be differentiated at the scale of vegetation mapping, or are otherwise included in surrounding mangrove communities. This vegetation type typically occurs in association with other mangrove and marine grassland/herbfield communities (VT18a-f and VT22a-d). Larger mapped areas of this vegetation type occur at Rocky Point, Cabbage Tree Point, Jacobs Well, Pimpama, Coombabah, Tallebudgera Creek and on many of the Moreton Bay Islands.

Historic distribution of Vegetation Type 22



* Metasediment rocks

The most common underlying geology on the Gold Coast is metasediment rocks. Metasediment rocks are a type of metamorphic rock (rock transformed by heat and pressure). Originally these rocks were sedimentary rocks which were formed on the ocean floor through the deposition and solidification of sediment. These sedimentary rocks were subsequently buried underneath other rocks and subjected to high pressures and temperatures, causing the rock to recrystallize. This recrystallization process is known as metamorphosis, hence the term metamorphic rocks. About 300 million years ago these metamorphic rocks were pushed upward by geologic processes, creating much of the ranges, hills and lowlands on the Gold Coast.

2017 EXTENT AND CONSERVATION STATUS

Gold Coast

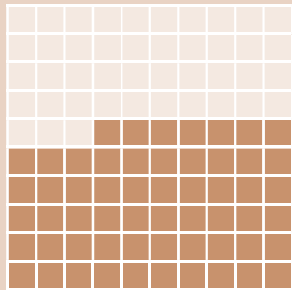
Historically, one of the most common of tidal wetland vegetation types on the Gold Coast. Nearly half has been lost. The 2017 extent* of this vegetation type on the Gold Coast was 595 hectares.

1 HECTARE (HA) = 2.46 ACRES \cong THE SIZE OF AN INTERNATIONAL RUGBY FIELD

EXTENT (ha)

Historic
1,044ha

2017*
595ha
57% of
historical
extent

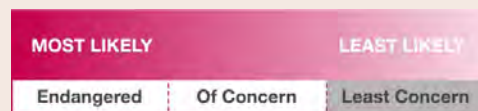


* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.1.2) as being 'Least Concern'.

LIKELIHOOD OF BECOMING EXTINCT (in QLD) due to biodiversity loss/degradation



USEFUL RESOURCES

City of Gold Coast website: Environmental weeds and invasive plants.

Find out more about regional ecosystems at the Queensland Government Regional Ecosystems webpage.

CREDITS

Content – ngh Environmental and Jason Searle.
Vegetation Type Photo – Lui Weber ©
Unless otherwise noted all other photos – Glenn Leiper ©

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THREATS

Sporobolus virginicus grassland occurs on marine plains within the upper tidal area of low islands, rivers and estuaries, and is subject to disturbance from storms and other seasonal weather events. Consequently, sea level rise and potential increased erosion associated with increasing and extreme weather events suggests that climate change has the potential to significantly impact on this vegetation community. Weeds are generally a low threat to this community, as it occurs in tidal areas, although Groundsel and Bitou Bush do occur in some of these grasslands.

Common threats to all vegetation types

Clearing

Native vegetation is protected by Federal, State and local legislation. However, with increasing population growth in the region, Southeast Queensland is experiencing large amounts of vegetation clearing, particularly in areas designated for urban development. Protecting native vegetation on your property is one of the most beneficial things you can do to protect wildlife and the natural environment.

Weeds

Environmental weeds are the second biggest threat to our natural environment after land clearing. Environmental weeds (introduced plants that have naturalised and are invading our bushland) degrade our natural environment by:

- out competing native plant species for available nutrients and light
- taking over and transforming native landscapes often leading to local plant or animal extinctions and loss of biodiversity
- reducing the availability of food and other resources for many native animals whilst sometimes benefiting pest animals
- increasing the risk of destructive wildfire
- often being toxic to people and animals.

Fire

Very broadly, vegetation is either adapted to fire or fire sensitive. Fire can become a threat if:

- it extends into vegetation types which should not be burnt e.g. rainforest,
- the frequency and/or intensity of the fire is too high, and/or
- the area burnt is too large.

Grazing

The grazing of animals like cattle, horses, goats and feral animals such as deer can cause trampling or loss of diversity of seedlings and compact soil, preventing natural regeneration.

Collecting

Unethical and illegal collection of plant specimens in the wild poses a serious threat to some species, particularly orchids, grass trees and epiphytes.

Climate change

Changes in temperature and rainfall can have significant effects on our city's vegetation. For example, without consistent rainfall, areas become drier, potentially resulting in higher fire frequency and/or intensity, which some plants and vegetation communities won't be able to tolerate. Plants (and animals) need available space to migrate as conditions change, with high altitude species at the greatest risk as there is nowhere suitable for them to go. Warmer conditions may also provide the right habitat for a greater variety of weeds. As sea levels rise, salt water moves further upstream and vegetation also becomes inundated.