EUCALYPT

VEGETATION TYPE 4b

Regional Ecosystem: 12.11.25

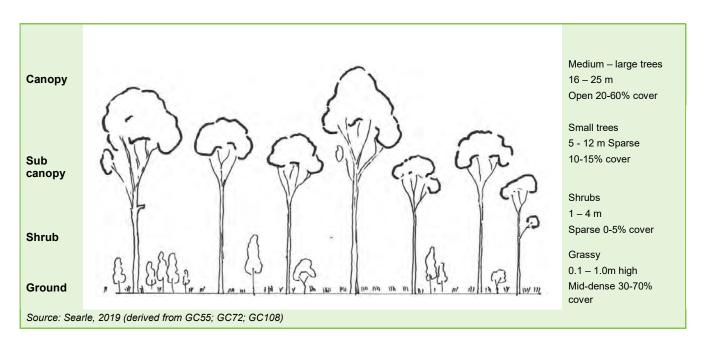
Gum-topped Ironbark (Eucalyptus dura)

Woodland on Metasediments



COMMUNITY STRUCTURE

Vegetation type (VT) 4b is typically a woodland with a canopy layer that varies in height from 16m to 25m high and provides approximately 20-60% canopy cover(shade to underlying plants). Gum-topped Ironbark (*Eucalyptus dura*) is characteristic and diagnostic species in the canopy layer of this community. Other common trees in both the canopy and lower tree layers include Broadleaved White Mahogany (*E. carnea*) and Brush Box (*Lophostemon confertus*), with the latter tree in particular more common as a subcanopy species from 4m to 10m in height.



The shrub layer is usually sparse but diverse, with Dogwood (*Jacksonia scoparia*) often common and characteristic. Black Wattle (*Acacia concurrens*) and/or Black She-oak (*Casuarina littoralis*) are the most typical shrubs, although Prickly Paperbark (*Melaleuca nodosa*) can be common in some locations. The ground cover is dominated by native grasses.



Characteristic plant species

Approximately **52 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.



Indicates species is a preferred koala food tree*



Indicates species is a Glossy Black-Cockatoo feed tree species



Indicates species is a City-wide significant species

* It is noted that in addition to preferred food trees, koalas utilise a range of eucalypt and non-eucalypt tree species for supplemental feeding and other uses such as shelter. These other species are also important and necessary features of koala habitat.

CANOPY

Upper layer of vegetation exposed to sunlight which creates a canopy that shades lower layers



Gum-topped Ironbark

Eucalyptus dura



Photo needed

Broad-leaved White Mahogany

Eucalyptus carnea



Brush Box Lophostemon confertus

SUB-CANOPY

Tree layer below canopy



Brush Box
Lophostemon confertus



Forest She-Oak

Allocasuarina torulosa



Narrow-leaved Red Gum Eucalyptus seeana



Spotted GumCorymbia citriodora subsp.
variegata



SHRUB LAYER

Middle layer of vegetation usually made up of small trees and woody shrubs. Includes juvenile canopy and sub-canopy tree species



Black Wattle

Acacia concurrens



Black She-oak
Allocasuarina littoralis



Prickly Paperbark
Melaleuca nodosa



Sickle Wattle
Acacia falcata



Hickory WattleAcacia disparrima subsp.
disparrima



Brush Box Lophostemon confertus



Dogwood *Jacksonia scoparia*

GROUND LAYER AND VINES

Lowest layer of vegetation. Plant types can include grasses; graminoids (non-woody plants with a grass-like morphology); ferns; forbs (non-woody, broad-leaved, flowering plants) and vines (where present) may extend upwards into the canopy.



Kangaroo Grass Themeda triandra TUSSOCK GRASS



Barbwire Grass
Cymbopogon refractus
GRASS



Beard Grass
Chrysopogon sylvaticus
TUSSOCK GRASS



Wiry Panic
Entolasia stricta
TUSSOCK GRASS

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. One characteristic species is identified above as a CWS species. No other City Wide Significant plant species have been identified for this vegetation type.

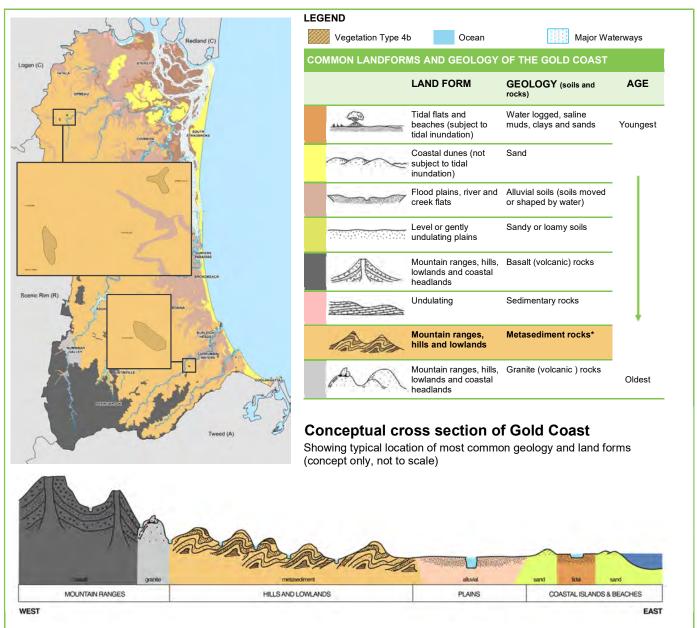


OCCURRENCE

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.

This vegetation type is restricted to the tops of high, dry hills, and is known to occur in a few small patches along the ridge between Pimpama and Ormeau in the north-west parts of the Gold Coast, with a further isolated patch on a similar ridge in Tallebudgera. This area is characterised by shallow rocky or stony soils and has hard rock (Greywacke or 'blue stone') underlying it. This community occupies similar habitats to VT4 (Spotted Gum/Ironbark woodland on meta-sediments) and sometimes intergrades with this community on these stony ridges and surrounding slopes. This community also occurs on similar dry ridges in surrounding local government areas to the north and west of Gold Coast City.

Historic distribution of Vegetation Type 4b



* 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

One of the least common vegetation types on the Gold Coast. The current extent* of this vegetation type on the Gold Coast is 34 hectares.

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



* 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 12.11.25) as being 'Of Concern'.

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

MOST LIKELY		LEAST LIKELY
Endangered	Of Concern	Least Concern

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

Gum-topped Ironbark woodland is a dry and open vegetation type, and is generally not suited to or threatened by development for urban or agricultural purposes. However the vegetation is at least partially located on the quarry lands at Darlington, and is potentially threatened by clearing for extraction of the underlying Greywacke or 'blue stone'. Too frequent fires, over-grazing or other loss of native grassy understorey can result in erosion and desiccation of the soil layer. Appropriate fire management is the key to maintaining this vegetation community.

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 types are 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,
- 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.

