

Our nationally important coastal areas

Photo by NASA's
Marshall Space Flight Centre
Flickr, <https://flic.kr/p/B8kHmM>



South East Queensland (SEQ) is home to thousands of plants and animals, a diverse landscape of forests, grasslands, wetlands and coastal areas of outstanding cultural and environmental value. Our coastal areas and their adjoining hinterlands contain many natural wonders. Rich and diverse, they are home to beautiful beaches and bushland, national parks, vibrant communities and strong commerce and industry.

Some of these areas are considered nationally important, known formally as 'matters of national environmental significance'. This means that they are protected under Commonwealth legislation*. Examples include three nationally threatened ecological communities – coastal saltmarsh,

lowland subtropical rainforests and coastal vine thickets – and a large number of nationally threatened plants and animals such as the Koala, Queensland Nut, Wallum Sedge-frog, Loggerhead Turtle and a number of migratory shorebird species.

SEQ is also home to an internationally significant wetland community, with Moreton Bay listed as a Ramsar site under the Convention on Wetlands of International Importance, while the Gondwana Rainforests of Australia World Heritage Area is found along our region's southern boundary with New South Wales.

* Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Other Threatened Plants and Animals

SEQ's coastal areas contain over 130 nationally threatened plants and animals many of which are found in combination with threatened ecological communities and/or Ramsar and World Heritage areas within the region, however this is not always the case.

Koalas in South East Queensland

SEQ has the greatest concentration of **Koalas** (*Phascolarctos cinereus*) in Queensland many of which are found within eucalypt forests and nearby urban areas. Unfortunately habitat loss and the impacts of cars, dogs and disease, has led to the Koala's listing as vulnerable. We're working with state and local governments to map Koala habitat to help guide conservation and recovery including on-ground works and establishment of new protection areas. *Photo by Deborah Metters*



Migratory Species

Migratory species are those in which the entire population, or a significant proportion, performs cyclical movements between distinct geographical areas. Some of these are Australian residents that move around depending on the season (e.g. egrets, monarchs, fantails, dugong), whilst others are international travellers, negotiating tens of thousands of kilometres from overseas countries (e.g. shorebirds, snipe, marine turtles, whales, sharks).

Wetlands within the coastal areas both natural and constructed (e.g. dams, sewage outfalls) are of particular importance for migratory shorebirds, especially given the loss of feeding habitats elsewhere in the world. Safe places to rest and conserve energy are vital to migratory shorebirds, as is abundant food on which to fatten up before their long return flights to the northern hemisphere. *Photo by Todd Burrows.*

The endangered **Painted Snipe** (*Rostratula australis*) is rarely seen as it steals through the wetlands of SEQ, though any sighting soon sparks the attention of local birdwatchers. Painted Snipe rely on a range of shallow, freshwater to brackish wetlands, such as lakes, swamps, boggy grassland and saltmarsh; draining and flooding of wetlands has threatened this handsome bird. *Photo by Todd Burrows*



The east coast population of the **Grey Nurse Shark** (*Carcharias taurus*) is critically endangered. Important breeding and feeding areas are found near North Stradbroke and Moreton Islands. Hunting by fishers and divers in the mid-1900s reduced the population to around 1000, a very low number for this slow-growing and long-lived shark, which takes several years to mature and produces only two young every two years. *Photo by Kelly Hunter*



Nationally important landscapes in the coastal areas of South East Queensland

Moreton Bay Ramsar Site

Moreton Bay has been a Ramsar Site (a declared internationally important wetland community) since 1993. The 113,314 hectare site includes two of the world's largest sand islands – Moreton Island and North Stradbroke Island – and is near the southern limit for coral reefs.

Extensive areas of mangroves, saltmarsh and seagrass, together with perched freshwater lakes and sedge swamps on the mainland and islands, provide habitat for an extremely high diversity of plants and animals, including: over 50,000 migratory shorebirds during winter, six of the world's seven marine turtles, over 1000 dugong and a passing trade of over **20,000 Humpback Whales**. The Bay is of immense importance to people too, containing many sites of cultural significance, providing diverse recreational opportunities for 1.6 million human visitors every year and producing over 15% of Queensland's managed seafood.

Healthy Land and Water is facilitating community networks in key areas to inform and improve decision-making, manage impacts on the Bay and help conserve its unique values. For example, on North Stradbroke Island, we're helping to coordinate feral animal control to reduce the impact on ground-nesting birds, marine turtles, small mammals and other wildlife.



Photo by Adrian Midgley - Flickr
<https://flic.kr/p/5kPokJ>

Moreton Bay has the highest recorded diversity and abundance of resident and transient whales in Australia, with six species recorded; all are included under international migratory wildlife conservation agreements. In Moreton Bay, stranding and death or injury from collisions with boats remains a threat with over 70 animals impacted in the last 10 years.

SEQ's seagrass meadows and reef systems provide abundant jellyfish, shellfish, crabs and sea urchins for **Loggerhead Turtle** (*Caretta caretta*) to feed on. Loggerhead & Green turtles also nest along many of the surf beaches on Moreton Bay's Islands.



Nationally important ecological communities in the coastal areas of South East Queensland

Littoral Rainforest and Coastal Vine Thickets of Eastern Australia (Critically Endangered)

Only a few, tiny patches of this critically endangered community remain on the dunes and beach ridges of SEQ. Littoral Rainforest and Coastal Vine Thickets have a naturally disjunct distribution, exacerbated through clearing for coastal development with places like the Gold Coast previously containing stands of this rainforest behind its sandy beaches. Most remaining fragments are too small to map and are vulnerable to further threats, particularly weeds.

The Southern Swamp Orchid (*Phaius australis*) is a magnificent, endangered ground orchid. It produces 10-15cm red-brown flowers with yellow veins, at the end of metre long stalks. Unfortunately, its attractiveness has contributed to its demise, with illegal collection by plant enthusiasts from populations decimated by habitat clearing, resulting in the extinction of 95% of original populations. Photo by Glenn Leiper

Scented Acronychia (*Acronychia littoralis*) is endangered and very rare in SEQ. This small tree has small yellowish flowers and glossy leaves full of oil glands, which release a pleasant fruity scent (with a hint of nutmeg) when crushed. Photo by Glenn Leiper



Photo by Australian Network
for Plant Conservation, Flickr
<https://flic.kr/p/ejm87U>



An **ecological community** is a group of plants and animals that interact with each other in a given location.



Glass House Mountains National Landscape

The extraordinary formations of the Glasshouse Mountains, arising abruptly from the surrounding coastal plains, create a dramatic vista iconic to SEQ. The mountains are volcanic plugs, formed when lava solidified beneath the soil surface over 25 million years ago. Erosion by wind and water has removed the soils and soft sandstones around the plugs, leaving the spectacular peaks that we see today.

The unique environment of the Glass House Mountains create habitat for several endemic plant species and they are one of few places where montane heath can be found in SEQ. The mountains are of special spiritual importance to the Gubbi Gubbi and Jinibara people, who have had a long and intensive association with the area.



Photo by Craig Wilson

Subtropical and Temperate Coastal Saltmarsh (Vulnerable)

Scattered along SEQ's coastline are small pockets of coastal saltmarsh, typified by salt-tolerant plants such as marine couch and samphires. Coastal saltmarsh provides vital feeding and roosting areas for migratory and resident shorebirds and 'nursery' habitat for many fish including recreationally important species such as bream and flathead. Most patches are less than 10 hectares and all occur on tidal flats subject to regular or intermittent inundation by seawater.

The high productivity of these wetlands make them important carbon stores with Australian saltmarshes, along with mangroves and seagrasses, trapping and burying five times more carbon in each hectare of their soils than land based forests. Coastal saltmarsh has suffered a nearly 13% decline in extent since 2009 and is under ongoing threat from sea level rise, increased fragmentation, changes to tidal regimes and inappropriate recreational use.



Saltmarsh for Life is a collaborative program working across all sectors of the community to enhance our understanding of saltmarsh in SEQ and to raise awareness about ways we can all manage it better for the future.

The vulnerable **Water Mouse** (*Xeromys myoides*) has silky, water-resistant fur, ideally suited to the wet environment in which it lives. At low tide, Water Mice forage in saltmarsh and mangroves for food such as crabs, shellfish and snails, and shelter during high tide in a constructed nesting mound or in hollows close to or above the high tide mark.

Photo by Ian Gynther

Its large size and long curved bill makes the **Eastern Curlew** (*Numenius madagascariensis*) the most easily identified migratory shorebird to visit SEQ's coastline. Eastern Curlews dig deep into the sand and mud of tidal flats to feed on crustaceans and molluscs, fattening themselves in preparation for their long flight back to Eastern Russia. Loss of intertidal wetlands has led to increasingly fewer feeding areas and those remaining are further apart, causing an 80% reduction in their global population; they are critically endangered. Photo by Todd Burrows

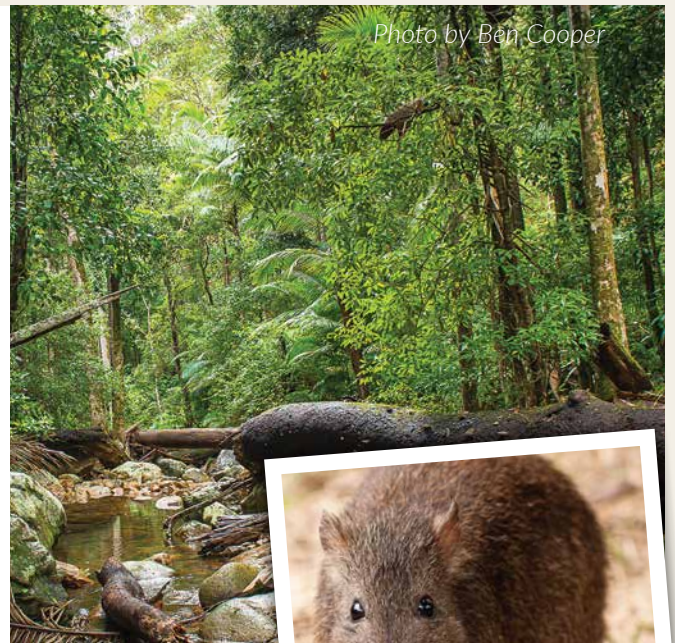
Gondwana Rainforests of Australia World Heritage Area

World Heritage Areas are of international and national importance. The Gondwana Rainforests contain the most extensive area of subtropical rainforest in the world, with many plants and animals that have remained relatively unchanged for thousands of years. Whilst the World Heritage Area is only declared over public land, primarily National Parks, many of the same natural values and habitat occur in adjacent landscapes on privately managed land.

Since 2006, Healthy Land and Water has instigated and delivered a series of projects conserving World Heritage Area values and threatened species habitats, through actions such as fire and livestock management, invasive weed control and revegetation on adjoining private land. We also assisted to develop the Border Ranges Rainforest Biodiversity Management Plan and are an active partner in the Border Ranges Alliance.

The vulnerable, fungi-feeding **Long-nosed Potoroo** (*Potorous tridactylus tridactylus*) has a patchy distribution but occurs in a diversity of vegetation types across SEQ. While looking more like a bandicoot, it is actually closely related to kangaroos and hops rather than runs. *Photo by Andrew Shipway*

The vulnerable and aptly-named **Three-toed Snake-tooth Skink** (*Coeranoscincus reticulatus*) has long curved teeth and three clawed toes on each of four short legs. It occurs in the wetter forests of SEQ where it can be found burrowing through mulch, the soil underneath and in and under rotting logs in search of earthworms and beetle larvae. *Photo by Stuart Macdonald*



Lowland Rainforest of Subtropical Australia (Critically Endangered)

This rainforest is tall, with vertical layers of many tree species, including figs, hoop pine, lilly pilly and brush box, some of which rise high above the other trees. The tree branches and leaves greatly overlap each other, creating a dark, protected environment beneath them for tangled vines, lush ferns and palms. Over 90% of the original extent of this rainforest has been cleared for housing, agriculture and infrastructure. It is usually found in low-lying areas of eastern Australia (areas less than 300m above sea level), that are more than 2km from the coast and receive a high annual rainfall (>1300mm). Most coastal area contain fragments of this rainforest; however it has virtually disappeared from some areas.



The endangered **Pink Underwing Moth** (*Phyllodes imperialis*) is a giant of the insect world, with a wingspan of 13-14cm. Its amazingly coloured caterpillar feeds exclusively on the relatively rare vine *Carronia multisepealea*, which only grows in lowland subtropical rainforest. *Photo by Luis Weber*

The iconic macadamia nut is the product of wild trees sourced from coastal SEQ. There are four macadamia species, all are endemic to the rainforests of SEQ and northern New South Wales and all are threatened. The vulnerable **Queensland Nut** (*Macadamia integrifolia*) is the main commercial species and a few trees sent to Hawaii in the late 1800s were the foundation for today's

international industry. We are partnering with the Macadamia Conservation Trust to help conserve macadamias. *Photo by DAFF*

The **Giant Barred-frog** (*Mixophyes iteratus*) is the second largest frog in Australia. It has banded legs, a golden eye and a distinctive guttural call. Local extinctions due to habitat loss and disease have caused this beautiful large frog to become endangered.

Photo by Bruce Thompson



What are we doing?

Each year Healthy Land and Water works with 1000's of community groups and land managers to protect and manage our nationally important coastal area. Some examples include:

We're supporting property owners across SEQ with **lowland subtropical rainforest** to manage stock, control weeds and undertake revegetation to restore, expand and connect this community and provide habitat for threatened species.

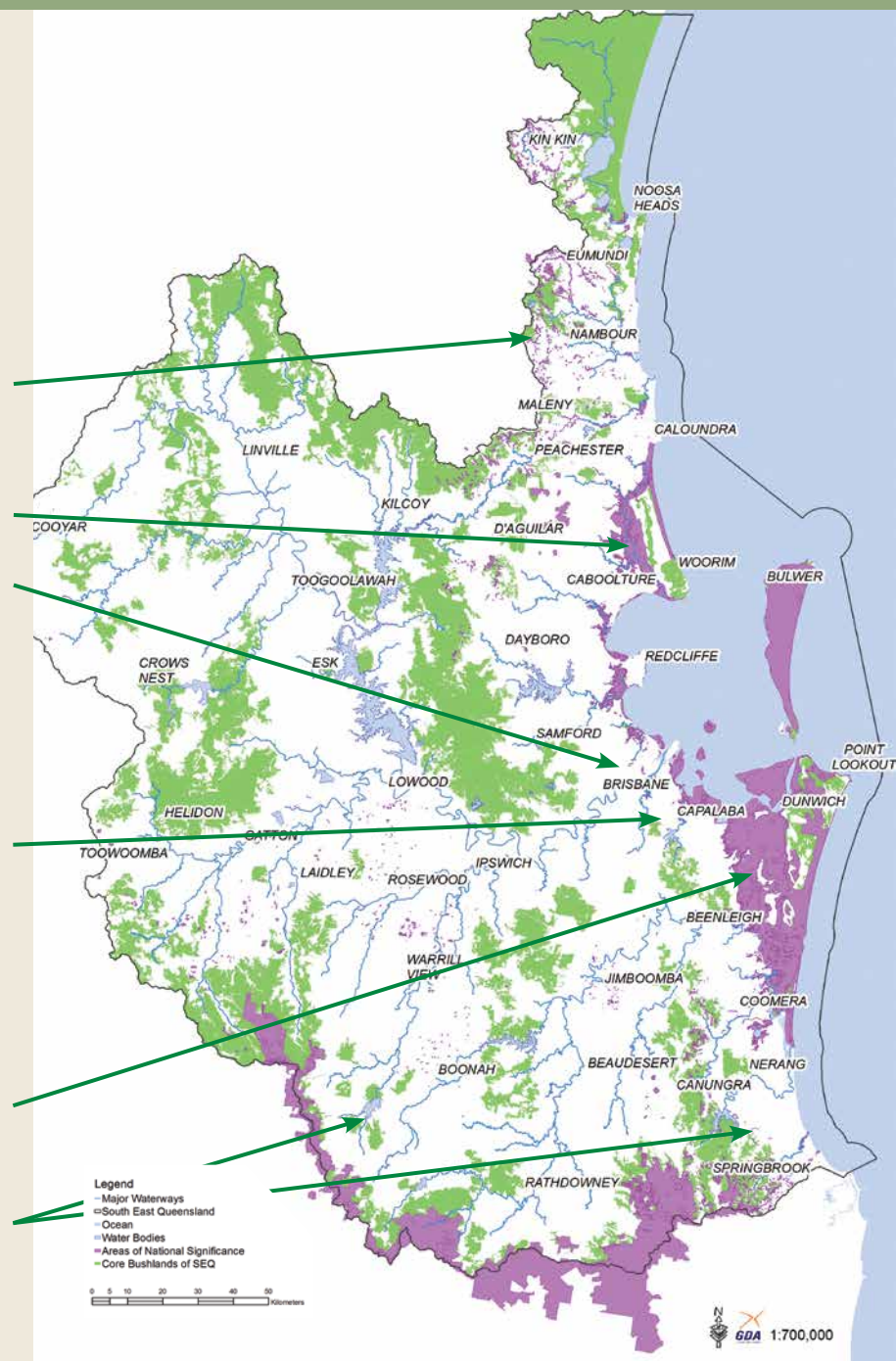
Projects in the Pumicestone and Brisbane catchments, such as the **Aura Community Stewardship Programme** and **What's your Nature**, are connecting communities with waterways, protecting and restoring habitats and reducing sediment and nutrient impacts on **Moreton Bay**.

We've developed guidelines for flying fox camp management and supported on-ground works to help maintain populations of **Grey-headed Flying-fox** in SEQ so these amazing mammals can keep pollinating our eucalypt forests and spreading rainforest seeds.

We're engaging with boaties, recreational fishers, and Traditional Owners in the management and conservation of fish and **Dugong** habitat including oyster reefs, tidal wetlands and seagrasses.

Rare Treasure Workshops are being held with target landholders to assist them to design and implement works to protect threatened species.

Looking after our region through strong partnerships



What can you do?

There's a multitude of ways for you to get involved. To find out if you have nationally important habitat nearby, please contact us or your local Land for Wildlife officer. If you do have these habitats and would like help with their conservation, we would love to hear from you.