Dugong Swimming against a tide of threats

Sole survivor

The dugong is the *last remaining* species of the Dugongidae family.

Steller's sea cow, a giant member of this family, was hunted to *extinction* in the 18th century — the first marine mammal extinction in modern history.

Dugongs are *herbivorous aquatic mammals* who, along with their close relative the manatee, are often called "sea cows".

Long-lived but slow to grow



Seagrass vital for survival

Dugongs can munch their way through 30kg of seagrass a day — the equivalent to about 60 lettuces.

If the seagrass dies, dugongs die. Severe flooding, for example, can kill off seagrass. Many dugongs can be found *dead or displaced* for months after major floods.

Dugongs down under

Australia has the *world's largest* dugong population — from Queensland's Moreton Bay, along Australia's northern coast, to Shark Bay in Western Australia.

Dugongs are now *extinct* in many Pacific waters and are in *serious decline* in Australia.

A tough life

Dugongs are often:

- *drowned* in trawler, fishing and shark-protection nets.
- *run over* by boats and jet skis.
- *forced out* as habitat is destroyed by coastal development, dredging and pollution.





EPA maintains a database, *StrandNet*, of marine wildlife strandings and deaths. From this information:

- *impacts* on dugong populations are *assessed*









Sea turtles Navigating troubled waters

Seeking safety

The waters off the Queensland coast are home to *six of the world's seven* species of sea turtle. Some are permanent residents. Others travel thousands of kilometres to nest here. All are listed as rare or threatened.

Turtle populations are *highly vulnerable* to human and natural impacts

Our actions can push them further towards extinction — or help them survive.

Fascinating creatures

Turtles are *exceptional navigators*. Females return to nest on the same beaches where they were born.

Temperature influences the hatchlings' sex. Cooler gives more males and warmer gives more females.

Turtles can weigh over 100kg, and live for more than 120 years.

Green turtles graze on *seagrass* and seaweed. Others eat *jellyfish*, shellfish, urchins and corals.



Most don't make it

Less than *one in 1000* turtles will reach maturity.

Many eggs are lost to *predators* — native, domestic and feral animals. Hatchlings fall prey to birds and fish.

It takes up to *50 years* before a turtle is ready to breed and females only nest every two to eight years.

Be part of the solution, not the problem

- **GO SLOW! LIFE BELOW!** Boats and jetskis impede feeding, damage habitat, injure and kill.
- **Keep our waters healthy** Pollution degrades turtle habitat.
- Stow it, don't throw it
 Turtles can swallow plastic bags and wrappers

 they mistake them for jellyfish.

• Fish responsibly

Discarded tackle, crab pots and nets entangle and kill turtles.

- **Don't drive above high water mark** 4WDs compact nests and kill hatchlings.
- **Keep pets off nesting beaches** Cats and dogs destroy nests and kill hatchlings.
- **Don't disturb nesting turtles** Be still and quiet or turtles will retreat without nesting.
- Stay in the dark Lights deter nesting turtles and confuse hatchlings.
- Report dead or injured turtles through the EPA hotline 1300 130 372.

See life begin

There are several places in Queensland where you can *watch turtles nest* and hatchlings emerge. Nesting occurs from December to February. Hatchlings emerge from January to March. It's vital that you *do not disturb them*.







Seagrass & Central to the coastal marine environment

More like a lily than a seaweed

Seagrasses, like land plants, have roots, stems and leaves, and produce *flowers, fruit and seeds*. They're not technically grasses; nor are they seaweeds, which are actually algae. Their closest relatives are *lilies and orchids*. Seagrasses grow in shallow coastal waters where there's good nutrient supply (often from nearby mangroves), *clear water* and sunlight. More than 15 species of seagrass grow along the Queensland coast, and around 30 Australia-wide more than any other country.

Paddle weed Halophila ovalis



They keep the water clear by slowing water flow and settling sediments and nutrients. The roots stabilise the seabed, preventing wave and storm erosion.

Keep off the grass!

Seagrass beds are easily damaged and slow to recove

Nutrient run-off and pollution from urban areas promote algae growth and sediment build-up — blocking sunlight and causing seagrass to die.

Boating, jet skiing, trawling, dredging and coastal development all take their toll on seagrass beds — and the animals living there.

- Keep chemicals, fertilisers, waste and other pollutants out of waterways and stormwater drains.
- When boating or jet skiing, go slow and avoid anchoring near seagrass beds.
- Join your local river catchment group and help keep our waterways healthy.
- Join a seagrass watch group and help monitor changes in seagrass beds.





Cruising our coasts

On our doorstep

More than **30** whale species frequent Queensland's waters — including the minke, melon-headed and, that big showoff, the humpback. Some whales are *permanent residents*. Others, like the humpback, return *seasonally* or periodically. Like us, whales are mammals. They give birth to live young, which are fed on their mother's milk.

Back from the brink

Many whale species, the humpback included, were *commercially hunted* almost to extinction — mainly for their oil. Humpback numbers today are only a fraction of what they once were. But the good news is numbers are *increasing* by about 10 percent each year. Today, all whales in all Australian waters are *protected*.





Watch out for whales

Queensland's east coast is one of the greatest places on the planet for *whale watching*. Your best chance to spot a whale is during the humpback's annual winter migration between June and October. If you are lucky, you can see other species year round.

Give whales a wide berth

30m (1000ft)

200m

~00m

There are *strict guidelines* for whale watching — for their safety and yours.

When flying:

229/9

- In a fixed wing aircraft, stay at least 300m above whales.
- In a helicopter, stay at least 1000m away from whales in Whale Protection Areas. In all other areas, stay at least 600m above whales or if below this height, 1000m away.

When swimming:

- Enter the water at least 300m from whales.
- If a whale approaches, swim slowly away.

When boating:

• Stay at least 300m from whales in Whale Protection Areas and at least 100m from whales in all other areas.

Never feed, touch

For detailed information about Whale Protection Areas and approach distances visit the EPA website www.epa.qld.gov.au. Report sick, injured or dead whales

Attract or chase whales

