#01

POWERFUL OWL

TERRESTRIAL (LAND-BASED)

IMAGE: ROSIE NICOLAI

Did you know?

The only owl in Australia that hoots like the owls in books - “whoo hoo” - rather than screeching.

The Powerful Owl's native vegetation habitat stabilises creek banks and acts as a filter that limits erosion and cleanses the water. This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Forest and woodland, dense riparian vegetation, tree hollows.

FOOD

Possums, gliders, flying fox.

THREATS

Susceptible to loss of habitat in particular loss of large hollow bearing trees.

#02

EASTERN YELLOW ROBIN

TERRESTRIAL (LAND-BASED)

IMAGE: KEN GLASSON

Did you know?

The robin's nest is made of fine plant material and spider web!

The habitat of the Eastern Yellow Robin plays a critical role in keeping waterways healthy. Native vegetation stabilise creek banks and acts as a filter that limits erosion and cleanses the water. This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Forest and woodland with thick understory.

FOOD

Insects and small invertebrates.

THREATS

Susceptible to loss of habitat and predation by feral animals especially cats.

#03

BUTTERFLIES AND MOTHS

TERRESTRIAL (LAND-BASED)

IMAGE: SYDNEY OLYMPIC PARK AUTHORITY

Did you know?

The total number of Australian moth and butterfly species may be as high as 30,000!

The native vegetation, where butterflies and moths live, stabilise creek banks and acts as a filter that limits erosion and cleanses the water.
This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Mosaic of vegetated habitats.

FOOD

Nectar.

THREATS

Susceptible to loss of habitat by land clearing.

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#04

FOREST RED GUM

TERRESTRIAL (LAND-BASED)

IMAGE: M FAGG

Did you know?

Cumberland Plain Woodland once covered an estimated area of about 125,000 hectares on the clay soils of western Sydney.

Native vegetation stabilise creek banks and acts as a filter that limits erosion and cleanses the water. This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Grassy, wet or dry forest or woodland on soils of medium to high fertility.

THREATS

Susceptible to clearing and weed invasion.

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#05

SYDNEY BLUE GUM

TERRESTRIAL (LAND-BASED)

IMAGE: M FAGG

Did you know?

This fast growing tree can grow to 30-55m in height with some exceptional specimens growing to 60m.

Native vegetation stabilise creek banks and acts as a filter that limits erosion and cleanses the water. This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Gound on deep clay based soils derived from either shale, volcanic rock or deep alluvium.

THREATS

Susceptible to clearing and weed invasion.

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#06

SOUTHERN MYOTIS

RIPARIAN (FORESHORE)

IMAGE: STEVE PARISH - LES HALL

Did you know?

Also known as the Large-footed Myotis due to its disproportionately large feet; more than 8 mm long, with widely-spaced toes.

Microbats live in the riparian native vegetation which stabilise creek banks and acts as a filter that limits erosion and cleanses the water. Macroinvertebrates, that microbats rely on as a food source, are highly sensitive to poor water quality.

HABITAT

Tree hollows, slow flowing water, dense riparian vegetation.

FOOD

Aquatic macroinvertebrates.

THREATS

Susceptible to loss of habitat in particular loss of large hollow bearing trees and loss of macroinvertebrate food resources due to altered water quality and flows.

#07

STRIPED MARSH FROG

RIPARIAN (FORESHORE)

IMAGE: ROSIE NICOLAI

Did you know?

The male Striped Marsh Frog's call is a loud 'tok' or 'whuck'. It sounds a lot much like a tennis ball being struck.

Frogs are freshwater bio-indicators - animals and plants that can be used to determine the health of freshwater habitats. They are very sensitive to water pollution which means that changes in the abundance and diversity of frogs can be used as a measuring tool to determine water quality.

HABITAT

Wetlands, floodplains, flooded grassland,woodlands, slow moving creeks, pools and ponds.

FOOD

Will eat anything smaller than it.

THREATS

Susceptible to degraded water quality, herbicides and pesticides.

#08

RAKALI

RIPARIAN (FORESHORE)

IMAGE: R JENKINS

Did you know?

Rakali have the unusual ability to be able to kill and eat cane toads without being poisoned.

Rakali live in the riparian native vegetation which stabilise creek banks and acts as a filter that limits erosion and cleanses the water. This reduces the amount of sediment and pollutants, including litter, nutrients, oils, fertilisers and heavy metals, entering the waterways.

HABITAT

Permanent bodies of fresh or brackish water with dense riparian vegetation and clay banks used for burrows.

FOOD

Large insects, crustaceans, mussels, fish, frogs, lizards, small mammals and water birds.

THREATS

Susceptible to changes in flow, loss of habitats and loss of prey due to decline in water quality. Susceptible to predation by cats and foxes.

#09

EASTERN LONG NECKED TURTLE

FRESHWATER

IMAGE: ROSIE NICOLAI

Did you know?

When it feels threatened, this turtle will emit an offensive smelling fluid from its musk glands. This trait gives the turtle one of its other common names, “stinker”.

The vegetation of the turtle's habitat helps stabilise banks and protect from erosion. Its invertebrate food sources are also sensitive to changes in water quality.

HABITAT

Wetlands, dams and creeks with habitat such as logs and rocks and undercut banks to provide refuge in daylight hours.

FOOD

Invertebrates such as worms, snails and insect larvae.

THREATS

Susceptible to decline in water quality, entanglement in rubbish, loss of habitat.

#10

EEL

FRESHWATER

IMAGE: GUNTHER SCHMIDA

Did you know?

The area of Parramatta was known by the Darug people as Burramatta. “Burra” meaning eel and “matta” meaning creek.

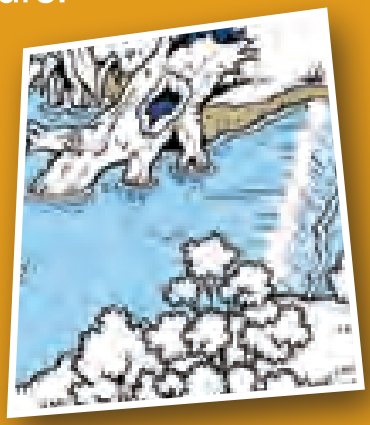
Poor water quality can cause reductions in eel populations since young eels (elvers) struggle to survive to maturity in polluted waters.

HABITAT

Wetlands, dams and creeks with habitat such as logs and rocks and undercut banks to provide refuge in daylight hours.

FOOD

Insect larvae, worms, snails, fish, yabbies, and even small birds.



THREATS

Susceptible loss of aquatic habitat, blockage of migration passage by road culverts and dams and declines in water quality.

#11

AUSTRALIAN BASS

FRESHWATER

IMAGE: GUNTHER SCHMIDA

Did you know?

Introduced carp are one of the biggest threats to native fish including bass.

Australian Bass thrive in clean water. They prefer clear streams that are low in suspended sediments.

HABITAT

Freshwater and estuarine habitats with varied structures such as large woody debris, overhanging riparian vegetation, macrophyte beds and undercut banks

FOOD

Voracious predator that will eat almost anything including aquatic and terrestrial macroinvertebrates, fish and small waterbirds

THREATS

Susceptible to changes in flows, water temperature and blockages to migration pathways to estuarine spawning grounds.

#12

WILSONIA BACKHOUSEI

ESTUARINE

IMAGE: SYDNEY OLYMPIC PARK AUTHORITY

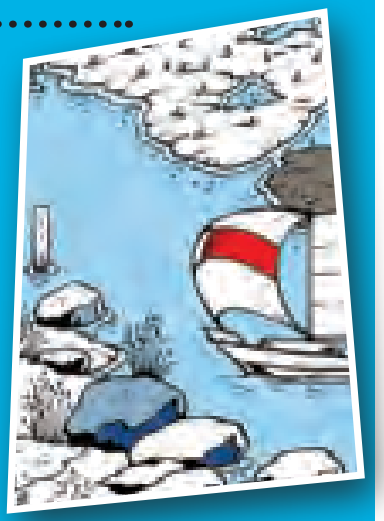
Did you know?

Sea level rise due to climate change is expected to have a significant impact on the distribution of salt marsh along the NSW coast including the Parramatta River-Sydney Harbour.

Salt marshes protect shorelines from erosion by buffering wave action and trapping sediments. They protect water quality by filtering runoff, and by breaking down excess nutrients.

HABITAT

Intertidal saltmarsh



THREATS

Susceptible to habitat loss, changed salinity regimes resulting from modified drainage or discharge of stormwater and invasion of weeds such as *Juncus acutus*.

#13

MANGROVES

ESTUARINE

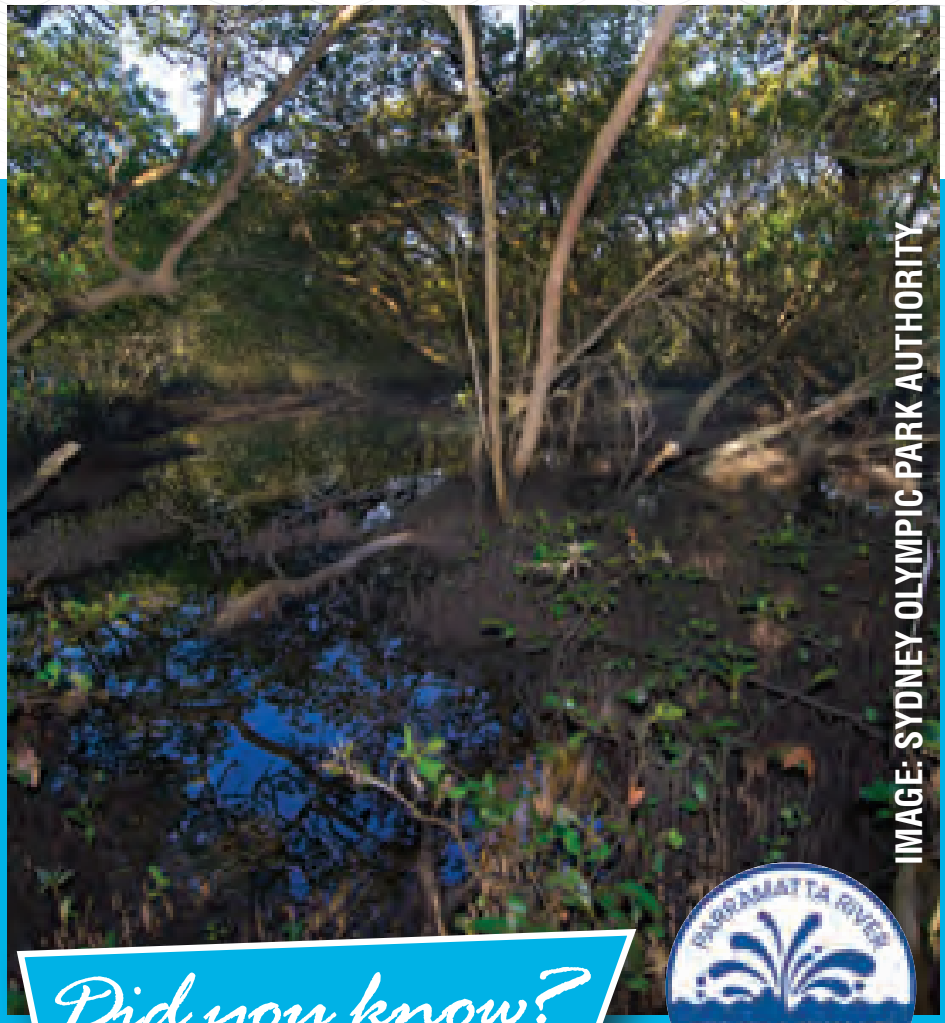
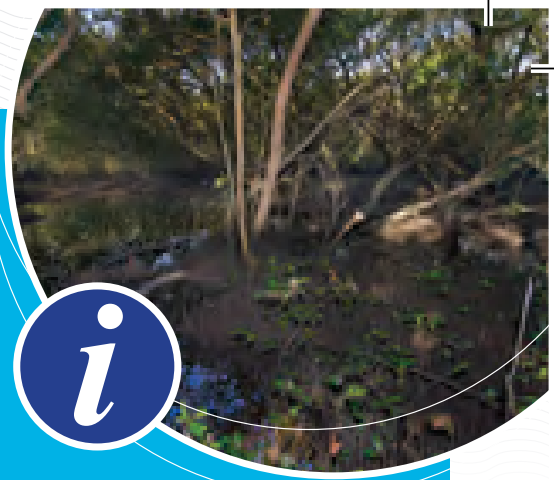


IMAGE: SYDNEY OLYMPIC PARK AUTHORITY

Did you know?

Mangroves have above-ground roots called pneumatophores, which act like snorkels, and allow the trees to breathe in the waterlogged soils.



Mangroves improve water quality by filtering pollutants, stabilising and improving the soil and protecting shorelines from erosion. Their root systems slow the flow of water aiding the deposition of sediment. During sediment deposition, toxins and nutrients can be bound to these sediment particles and removed from the system.

HABITAT

Occurs in fringing to intermediate tidal zone.

THREATS

Susceptible to changes in salinity regime, reclamation of habitat for foreshore development, off-road vehicles, dumping of rubbish/waste oil spills and toxic chemicals, trampling by humans and climate change and sea level rise.

#14

SEMAPHORE CRAB

ESTUARINE

IMAGE: SYDNEY OLYMPIC PARK AUTHORITY

Did you know?

The word ‘semaphore’ means a type of signalling apparatus with moving arms or flags, and refers to the males’ habit of standing by their burrows and signalling to other crabs by waving their claws up and down.

Semaphore crabs rely on the mangrove forests to survive. Mangroves improve water quality by filtering pollutants, stabilising and improving the soil and protecting shorelines from erosion.

HABITAT

Lives within the intertidal mangrove community.

FOOD

Organic detritus such as algae and leaf litter.

THREATS

Susceptible to loss of mangrove habitat and siltation due to increased sediment from urban run-off industrial pollution.

#15

SYDNEY ROCK OYSTER

ESTUARINE

IMAGE: LOWAN TURTON

Did you know?

An oyster can filter water, consuming plankton, bacteria and particles, at a rate of 4 to 5 litres per hour.

Oysters are highly sensitive to water quality. They are susceptible to water pollution such as sewage, heavy metals and other contaminants, fertiliser run-off and erosion. Oysters are also great water filters taking in water and removing dirt and nitrogen pollution.

HABITAT

Sheltered estuaries and bays with relatively clear water and salinity, pH and temperature within optimal ranges.

THREATS

Susceptible to changes to water quality decline due to stormwater run-off and industrial pollution.

#16

SEAGRASS

ESTUARINE

IMAGE: NSW DPI

Did you know?

Although in many species the leaves are long and narrow and grow in large “meadows”, which look like grasslands, seagrasses are actually unusual marine flowering plants rather than grasses.

The roots of seagrass stabilise the sediments in the river. The leaves of this 'grass' also slow water flow allowing sediments to settle on the bottom.

HABITAT

Sheltered bays with shallow waters and soft sediments such as sand or mud.

THREATS

A significant factor in declining seagrass is a decline in water quality due to urban and agricultural run-off.

#17

BAR TAILED GODWIT

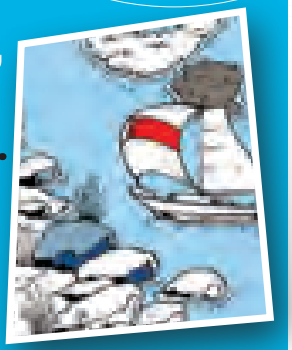
ESTUARINE

IMAGE: JON IRVINE

Did you know?

The bar-tailed godwit has the longest non-stop flight of any bird, flying over 11,000 km from from Alaska to New Zealand in only 8 days.

Major threats to species includes habitat loss such as land clearing, reclamation and drainage of intertidal areas. Habitat degradation due to weed invasion, altered flows and water pollution.



HABITAT

Intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is found often around beds of seagrass and, sometimes, in nearby saltmarsh.

FOOD

Molluscs, worms and aquatic insects.

THREATS

Major threats to species includes habitat loss such as land clearing, reclamation and drainage. Habitat degradation due to weed invasion, altered flows and water pollution.

#18 CORMORANT
ESTUARINE

IMAGE: SYDNEY OLYMPIC PARK AUTHORITY

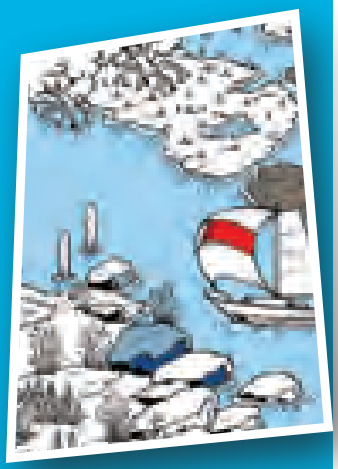
Did you know?

Both sexes of the Little Black Cormorant share nest-building, incubation and feeding of the young.

Species that thrive in clean water, like the cormorant, are a good indication of aesthetic, recreational and (often) primary contact water quality.

HABITAT

Freshwater, estuarine and marine waterways



FOOD

Fish, crustaceans, amphibians and occasionally small birds.

THREATS

Susceptible to habitat loss and declines in food resources due to declines in water quality, overfishing and habitat loss.

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#19

BLACK BREAM

ESTUARINE

IMAGE: PAT TULLY

Did you know?

Black bream are able to cope with salinity and temperature changes that would kill many other species of fish.

A 'true estuarine' species, black bream complete their whole life cycle within an estuary, and are reliant on healthy rivers and estuaries for their survival.

HABITAT

Brackish and fresh waters of estuaries and rivers wioth structures such as fallen trees, jettys and oyster beds.

FOOD

Opportunistic feeder which will eat invertebrates, fish and crustaceans.

THREATS

Susceptible to loss of habitat, degraded water quality and altered flow in upstream freshwater water reaches.

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