

Werribee River: Wildlife of the waterways

The Werribee River estuary forms the eastern boundary of a large Ramsar wetland in north-western Port Phillip Bay. This wetland supports key environmental values for plants and animals (especially waterbirds), as well as cultural, educational, tourism and scientific values.

The areas surrounding the river are home to a range of animals including birds, frogs, fish and mammals. Revegetation projects and the introduction of conservation areas have allowed wildlife to flourish and this means we can enjoy them in their natural surrounds.

We have provided an overview of some of the animals you are most likely to see in the area but don't be surprised if you see even more!



Fish

The Werribee River supports rich and diverse groups of fish. A number of fish located in the Werribee River are introduced species, which tend to alter the natural environment.

A survey of the Werribee River conducted in 2006 recorded 30 species of fish, including freshwater, estuarine and marine-estuarine opportunist fish. Some species move between fresh and saltwater as part of the process, and must migrate through the estuary to complete their lifecycle.

Water quality (both flow and non-flow related), barriers to fish movement, habitat degradation and over-exploitation by fishing were identified as the principal threats to fish in the Werribee River.

The river estuary supports several species of recreational and commercial importance, including black bream, King George whiting, yellow eye mullet and trevally. Recreational fishers target tench, brown trout, roach, short-finned eel, and river blackfish in freshwater sections of the river.



Fish



RIVER BLACKFISH

GADOPSIS MARMARATUS

SIZE: 30-60CM

This nocturnal, non-migratory native fish usually dwells near the bottom of upper sections of the river. It ranges from uniform grey overall to paler brown with irregular darker bands, blotches or mottling on the sides, and eats insects, crustaceans, worms, small fish and fish eggs. Overfishing has decreased numbers significantly.

COMMON GALAXIAS

GALAXIAS MACULATUS

OTHER NAME:
COMMON JOLLYTAIL

SIZE: UP TO 19CM

This migratory and slender-bodied fish is found in most of the Werribee River. It is olive-grey to amber overall, with a variable combination of darker spots and mottling on its sides. Adults move downstream to estuaries to spawn.



CLIMBING GALAXIAS

GALAXIAS BREVIPINNIS

SIZE: UP TO 28CM

This migratory fish, the largest Australian galaxiid, is grey-brown, with a darker back, and a highly variable pattern of dark bars, rows of spots, blotches or finer mottling on its sides. It was previously found in Toolern Creek, a tributary of Werribee River.

SPOTTED GALAXIAS

GALAXIAS TRUTTACEUS

OTHER NAMES:
TROUT MINNOW OR
SPOTTED MINNOW

This migratory fish is brown to olive overall, with pale-edged dark spots on its upper sides and a dark diagonal stripe below the eye. It is found mostly at lower elevations near the coast and was first recorded in the Werribee River in 2006.

Fish



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MOUNTAIN GALAXIAS

GALAXIAS OLIDUS

SIZE: UP TO 13.5CM

These non-migratory fish are yellowish-green to brown overall with a variable combination of dark bands, blotches or mottling on their sides. Mountain galaxias tolerate very cold water. They are found from sea level to 1800 metres in elevation and in quite large numbers in the upper sections of Werribee River.

TUPONG

PSEUDAPHRITIS URVILLII

SIZE: UP TO 30CM

Tupong are whitish with an irregular series of dark brown blotches on their sides. They are found in the lower sections and usually near the bottom of Werribee River. Tupong sit camouflaged on the river bed waiting to ambush smaller animals such as crustaceans, molluscs, worms, insects and small fish.



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SOUTHERN PYGMY PERCH

NANNOPERCA AUSTRALIS

SIZE: UP TO 8.5CM

These small fish are food for larger animals such as tortoises, birds, other fish and frogs. They are usually pale golden with greenish-brown mottling and a silver belly, and eat small crustaceans, insects and their larvae. They were recorded in large numbers in the upper sections of Werribee River in 2006, and previously recorded in the 1980s.

SHORT-FINNED EEL

ANGUILLA AUSTRALIS

SIZE: MALES UP TO 60CM,
FEMALES UP TO 90CM

These native migratory fish have a long snake-like body and an even golden to olive-green colour. They are active at night and eat crustaceans, insects, yabbies, fish and frogs. Short-finned eels are found along the length of Werribee River. Sexual maturity is attained at 14 years for males and 18 to 24 years for females.

Fish



EASTERN GAMBUSIA

GAMBUSIA HOLBROOKI

OTHER NAME: MOSQUITO FISH

SIZE: MALES UP TO 3.5CM,
FEMALES UP TO 6CM

These small, pale olive green to grey fish are found in the lower sections of Werribee River. They are native to north and central American rivers, and are believed to have been introduced into Australia in the 1920s. They feed on rotting debris, insect larvae and pupae, fish eggs and fry. Numbers are almost in plague proportions in some rivers.

BROWN TROUT

SALMO TRUTTA

SIZE: UP TO 90CM

These silvery to brownish or olive fish have dark spots on the sides and are found in the upper sections of Werribee River. Native to Europe, they were introduced to Australia in the 1860s for angling. Brown trout eat insects, crustaceans, molluscs, and small fish. Maximum weight in Australia is 14kg.



Birds

Some people say Werribee and surrounds are second only to Kakadu National Park for birdwatching. At least 190 bird species inhabit this environment during the year.

The Werribee River is home to a diverse population of native and migratory bird species, including the mighty wedge-tailed eagle and the splendid peregrine falcon.

Melbourne Water's Western Treatment Plant provides a haven for tens of thousands of birds and is recognised as one of the world's most significant wetlands. The Western Treatment Plant supports large numbers and groups of waterfowl and several species of waders and ducks.

Within the plant is Lake Borrie, the most significant wetland in Victoria for migratory shorebirds. Migratory birds travel from as far as Alaska, Siberia, China and Japan, doubling their body weight on the abundant food over summer before heading back overseas.

The Western Treatment Plant is home for up to 65,000 birds at any one time, with more than one-third of Australia's species being recorded there (about 270 species).



Birds



WEDGE-TAILED EAGLE

AQUILA AUDAX

SIZE: MALES UP TO 91CM,
FEMALES UP TO 104CM

These magnificent birds are sooty-black with tawny hackles on the back of the neck. They also have pale brown wing and undertail feathers and feathers on their legs. They have a long wedge-shaped 'tail' and a wingspan of about 210cm. They live in most places except closed forests and are recognisable by their yelps and squeals. They can be seen soaring with their upswept, 'fingered' wings.



SWAMP HARRIER

CIRCUS APPROXIMANS

OTHER NAME: MARSH HARRIER

SIZE: MALES UP TO 57CM,
FEMALES UP TO 61CM

Swamp harriers are dark brown with prominent white rumps, barred (striped) tail and wings and long yellow legs. They hunt over tall grass, reeds, rushes and crops, soaring with elevated wings. They make a high pitched 'see-uh' sound as they transfer food to one another.



GREAT EGRET

ARDEA ALBA

SIZE: UP TO 103CM

The egret is usually black with green facial skin. The body, wings and long lacy shoulder (scapular) plumes are white and the legs are dark grey or black. It lives in floodwaters, rivers, shallows of wetlands and intertidal mudflats, and can be recognised by its harsh croak.



AUSTRALIAN PELICAN

PELECANUS CONSPICILLATUS

SIZE: UP TO 180CM

This very large bird has a long, pink bill with an obvious throat pouch, and lives in fresh and saltwater. It is one of the world's heaviest flying birds and the only pelican in Australia, sporting a wing span up 3m and the longest bill of any known bird. As with all pelicans, they have webbed feet for paddling and usually inhabit the coastline. The Australian pelican can also be found inland near bodies of freshwater during times of high rainfall. They are generally white with black wings, a pale orange bill, and a slender arched neck, and may live 25 years or longer.

Birds



RED-NECKED STINT

CALIDRIS RUFICOLLIS

SIZE: UP TO 15CM

These non-breeding stints have a short, black bill with a grey crown, white below, a thin black line through the rump and a white wing bar. The breeding stints have black centred back feathers with chestnut edges. The head, neck, and breast are pink-chestnut and it has black legs. The red-necked stint lives around inland shorelines and along the coast. It has a high pitched trill and a 'chit, chit' voice.



AUSTRALASIAN SHOVELER

ANAS RHYNCHOTIS

OTHER NAMES: SPOONBILL DUCK, SHOVELBILL, STINKER

Female Australasian shovelers have mottled brown upperparts, chestnut underparts, and a dark brown eye. Males in breeding plumage have a deep grey-blue head with a white stripe between the bright-yellow eye and the bill. The underparts are largely chestnut, while the upperparts are mottled black, grey, white and brown. The bill has an extended pointed tip. Fine hairs along the edges of the bill help this duck strain insects, crustaceans, plants and seeds from the water. Nests are built on the ground in dense vegetation. The female alone incubates the eggs and broods the young.



CRIMSON ROSELLA

PLATYCERCUS ELEGANS

SIZE: UP TO 36CM

The crimson rosella has mostly crimson (red) plumage and bright blue cheeks. The feathers of the back and wing coverts are black, broadly edged with red. The flight feathers of the wings have broad blue edges and the tail is blue above and pale blue below and on the outer feathers. Young crimson rosellas have the characteristic blue cheeks, but the rest of the body plumage is green-olive to yellowish olive (occasionally red in some areas). Crimson rosellas are normally encountered in small flocks and are easily attracted to garden seed trays. Once familiar with humans, they will accept hand-held food. Natural foods include seeds of eucalypts, grasses and shrubs, as well as insects and some tree blossoms.



RED-BROWED FINCH

NEOCHMIA TEMPORALIS

OTHER NAME:
RED-BROWED FIRETAILS

SIZE: UP TO 12CM

The red-browed finch is green and grey but most easily recognised by its bright red eyebrow, rump and beak. It is often observed in small flocks, which feed on the grass and fly into dense undergrowth when disturbed. Red-browed finches feed on seeds and insects on the ground, but sometimes perch on seeding grass heads. Their preference for open grassy areas surrounded by dense shrubbery enables them to survive well in weedy areas along railway tracks and creek lines, where seeding grasses escape the lawnmower.

Frogs

The frog species known to live in and around the Werribee River enjoy varied lives. Some are loyal river dwellers while others divide their time evenly in the water, wading in wetlands and living on the land. Others are burrowers and spend most of their life underground.

The conservation of the Werribee River must include the correct management of these varied habitats to ensure the health of frogs is maintained as they are extremely important to our ecology.

Frogs are good indicators of a healthy environment, especially of water quality and toxins. This is because amphibians are covered in skin that must stay moist, making them susceptible to foreign substances entering waterways.

Land clearing, urban growth and climate change pose serious threats to frogs.



Frogs



GROWLING GRASS FROG

LITORIA RANIFORMIS

OTHER NAMES:
SOUTHERN BELL FROG,
WARTY BELL FROG

SIZE: UP TO 10CM

This frog is one of Victoria's most endangered species. Adults are usually found near or in water or very wet areas in woodlands, shrublands and open and disturbed areas. Eggs and tadpoles can be found in permanent lakes, swamps, dams, and lagoons with still water. Males are renowned for their distinctive calls, which consist of a long modulated growl or drone, followed by a few short grunts: 'crawark-crawark-crok-crok'. Growling grass frogs are 'sit-and-wait' predators, feeding on insects and even small lizards, fish, tadpoles and other frogs.

BIBRON'S TOADLET

PSEUDOPHRYNE BIBRONII

OTHER NAMES:
BROWN TOADLET,
BROWN BROOD FROG

SIZE: 2-3CM

These small frogs have short legs and numerous large warts on their backs. In the Melbourne area, they are limited to the northern and western suburbs and to the west of Port Phillip Bay, and have been found in the middle sections of the Werribee and its upper tributaries. Numbers have declined over the past decade, and the frog is rare or has disappeared in areas where it was once common.

COMMON FROGLET

CRINIA SIGNIFERA

OTHER NAME:
COMMON EASTERN FROGLET

SIZE: 2CM

The colouration and pattern on the small common froglet is extremely variable. The back can be smooth and uniformly brown, and longitudinal ridges can have alternating light and dark brown bands, or even shades of green or red. The common froglet breeds from April to December, and its mating call can create a deafening chorus. Their call sounds like crickets and may be a single squelchy 'crick' or many repeated 'crick-crick-cricks'. After rain, breeding occurs in still waterbodies or slow-flowing creeks.

POBBLEBONK

LIMNODYNASTES DUMERILII

OTHER NAMES:
SOUTHERN BULLFROG OR
EASTERN BANJO FROG

SIZE: 5-8CM

The pobblebonk, which may be found in large numbers following rain, is a medium to large frog. Two sub-species occur around Melbourne. The sub-species found north and west of Melbourne is a relatively uniform dark brown; and the sub-species east and south of Melbourne has a pale stripe running down its back and more variable colour. Males call from August to April and may migrate up to one kilometre to reach breeding sites.

Frogs



SPOTTED MARSH FROG

LIMNODYNASTES TASMANIENSIS

SIZE: 4CM

This medium-size frog has a pale back with numerous spots ranging from brown to green, and smooth and white undersides. It is most common in the southern part of the catchment. It is highly adaptable and often forms large breeding groups with vocal male choruses. Males call while floating in water, usually among aquatic vegetation, from August to May.

BROWN TREE FROG

LITORIA EWINGII

OTHER NAMES:
EWING'S TREE FROG,
SOUTHERN BROWN TREE FROG

SIZE: 3-5CM

This medium-size frog usually has a dark to light brown back and white underside. The back of the thighs ranges from yellow to a deep red. It is common throughout the catchment, although most recent records are from the northern section. The brown tree frog calls from and breeds in farm dams, ponds, creeks and waterholes. It tends not to be associated with fast-moving water.



Mammals

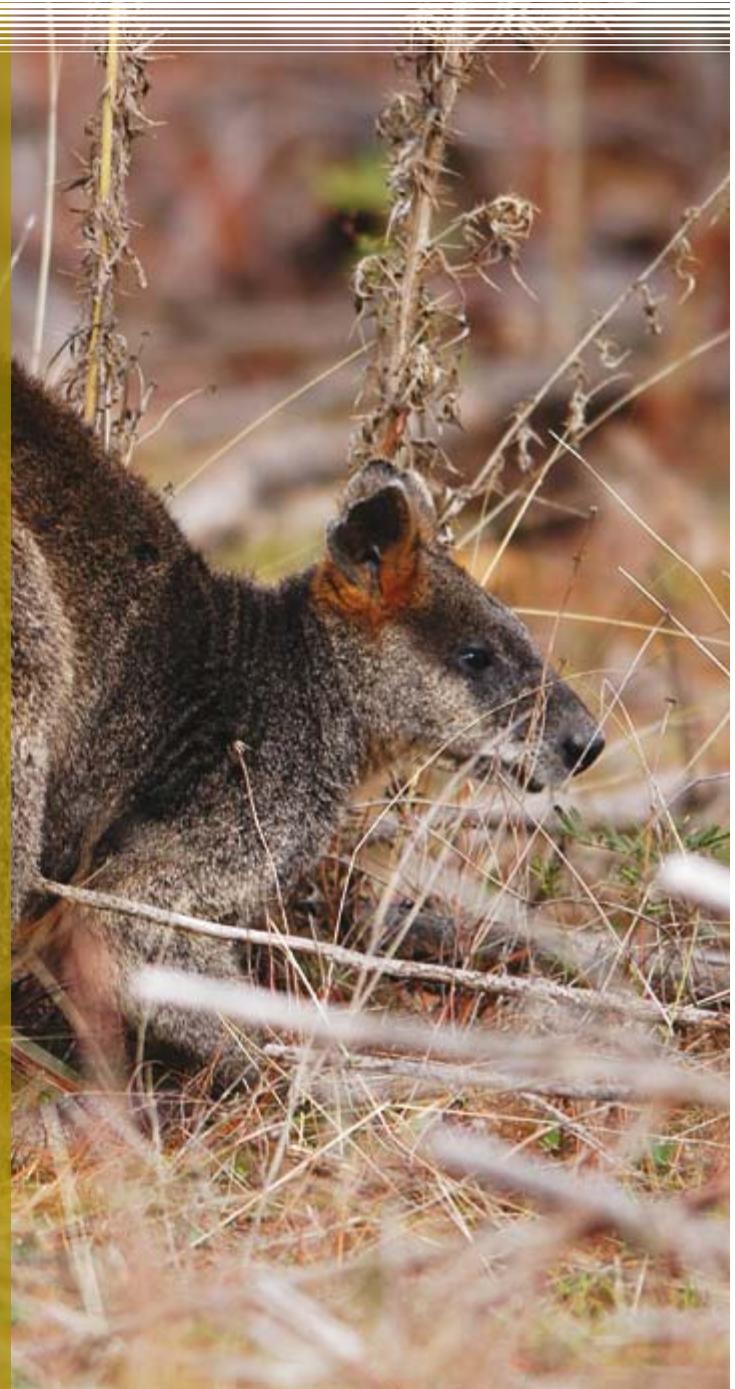
Werribee River is home to many species of mammals including about six species of bats. Bats, mainly roosting in tree hollows during the day, come out at night in the warmer months. Bats are an important part of the local ecology, and benefit greatly from Melbourne Water's tree planting along waterways.

Other mammals known to inhabit the river and its environment include the black wallaby, common wombat, Gould's wattled bat, red fox and the white-striped freetail bat.

While iconic Australian animals such as the koala and the eastern grey kangaroo can often be viewed feeding and grazing along the river bank, people may be unfamiliar with other mammal species that call the area home.

The river itself also provides valuable habitat to one of Australia's most loved and recognised animals, the Platypus (*Ornithorhynchus anatinus*). Classified as a regionally significant species, the Platypus makes its home burrowing into the steep banks of the creek. It collects food in large cheek pouches and feeds on yabbies, worms and other small invertebrates.

The Platypus belongs to the Monotreme family, and only one other species belongs to this group in Australia: the Echidna. People may be unfamiliar with other mammal species that call the area home.



Mammals



PLATYPUS

ORNITHORHYNCHUS ANATINUS

SIZE: UP TO 60CM

This top predator lives in rivers and creeks across much of eastern Australia, including the Werribee River. It feeds on benthic (or bottom-dwelling) macroinvertebrates, yabbies, worms, shrimp and small shellfish. Platypus surveys have been carried out only in the lower sections, where they were found to be quite abundant. However, platypus are likely to be widely distributed throughout the Werribee River system, wherever summer flows are reliable. This unique mammal is a valuable indicator of the health of aquatic ecosystems.

RAKALI

HYDRAMYS CHRYSOGASTER

OTHER NAME: WATER RAT

SIZE: UP TO 34.5CM (MALES)
37CM (FEMALES)

Water rats are part of the rodent family but look and behave more like otters. They are widespread and common in much of coastal Australia, and have been found throughout the Werribee River downstream of Melton Reservoir. Water rats have a broader nose than an introduced rat and a distinctive white tail tip. They vary in colour from grey-brown and rich golden brown to black with cream to golden-orange undersides. They are avid nocturnal hunters and catch fish, frogs, yabbies and insects before bringing them to land to eat. Water rats are well adapted to the water and are skilful swimmers and divers. They need areas of vegetation to burrow, forage and find refuge.



EASTERN GREY KANGAROO

MACROPUS GIGANTEUS

OTHER NAMES: GREAT GREY KANGAROO, FORESTER

SIZE: ABOUT 1.4M (STANDING)

These kangaroos have grey-brown upper parts with pale grey or white underneath. The males (up to 66kg) are about twice the weight of females (up to 37kg) and are more heavily developed in the chest and forearms. They are widespread and common throughout eastern Australia, including sections of the Werribee River. They are most active at dusk and dawn and gather in large mobs where food is abundant. Breeding is continuous although most young are born between March and May.

BLACK WALLABY

WALLABIA BICOLOR

OTHER NAMES: SWAMP WALLABY OR BLACK-TAILED WALLABY

SIZE: BODY 66-85CM,
TAIL 64-86CM

The black wallaby is dark and stocky with coarse fur. It is dark grey or blackish on top with flecks of grey, yellow and orange and a pale yellow or orange underbelly. It is common along the entire east coast. Black wallabies are found in a wide range of habitats including along the Werribee River. They are more active during the day than most other kangaroos and wallabies but are solitary and shy. They feed on the foliage of shrubs, ferns, sedges and some grasses. Breeding is continuous although most births in Victoria are during winter.

Mammals



SHORT-BEAKED ECHIDNA

TACHYGLOSSUS ACULEATUS

SIZE: 23-35CM

These curious egg-laying mammals are found throughout Australia, including along the Werribee River. They live a solitary life with no fixed address and few dietary requirements other than some ants or termites, and a log or bush for shelter. When in danger they dig down, baring an uninviting wall of quills to the enemy. Echidnas are 'true-blue' Australians and should not be confused with porcupines or hedgehogs, neither of which occurs naturally in this country. Breeding is from June to September.

WOMBAT

VOMBATUS URSINUS HIRSUTUS

SIZE: UP TO 1.2M,
WEIGHT UP TO 35 KG

The common wombat is the largest burrowing herbivorous mammal. Indeed, it is such an accomplished burrower that early settlers called it a 'badger', a term that is still heard today. However, the closest relative of the wombat is the koala. With its short tail and legs, characteristic waddle and 'cuddly' appearance, the wombat is one of the most endearing of Australia's native animals. It is a fairly large, solidly built animal with a squat, round, bear like body, small ears and eyes, and a large naked nose. Its thick, coarse fur varies from sandy brown to grey and black, and is sometimes flecked with fawn. Wombats usually come out at night to graze when temperatures are lower.



SUGAR GLIDER

PETAURUS BREVICEPS

OTHER NAMES: GREAT GREY
KANGAROO, FORESTER

SIZE: HEAD-BODY UP TO 21CM,
TAIL UP TO 20CM

Sugar gliders are beautiful and delicate animals, and have survived wherever there is enough food, suitable bush and hollows for breeding. The sap from black or silver wattle trees is one of their favourite foods, especially in winter when insects and flower blossoms are scarce. Equipped with a membrane of skin that extends from their forelimbs to hind feet, these silent and nervous possums can glide up to 40 metres between trees.

EASTERN FALSE PIPISTRELLE

FALSISTRELLUS TASMANIENSIS

OTHER NAME: FALSISTRELLES
SIZE: HEAD-BODY LENGTH OF
ABOUT 6.5CM

This bat is relatively large and weighs up to 28 grams. It is dark to reddish-brown above and paler grey on its underside. It has long slender ears set well back on the head and some sparse hair on the nose. They feed on insects, including moths, beetles and ants. Eastern False Pipistrelle roost in hollows in old trees, however they occasionally roost in disused buildings. They are vulnerable to loss of roost sites in tree hollows and loss of feeding grounds by forestry activities, clearing for agriculture and housing.

Reptiles

About 10 reptile species are known to inhabit the Werribee River and surrounding areas, with skinks making up a large proportion of that number. Other reptiles are dragons, snakes, geckos, blue-tongue and legless lizards, and the common long-necked turtle.

Three species of snakes known to the area are the little whip snake, eastern brown snake and the tiger snake. Although these snakes are venomous, they are protected species in Victoria and must not be caught or killed. Generally speaking, snakes need not be feared and are more likely to flee should they sense danger or human approach.



Reptiles



LITTLE WHIP SNAKE

SUTA FLAGELLUM

SIZE: 50CM

The little whip snake is a dull grey-brown to red-brown with a blackhead blotch broken by a pale bar across its snout. It is nocturnal, preying almost exclusively on lizards, and lives in woodlands, dry sclerophyll forest, granite outcrops and basalt plains. The adults are often uncovered in pairs or groups.

STRIPED LEGLESS LIZARD

DELMA IMPAR

SIZE: 27CM

These lizards have a broad olive brown stripe along their vertebra and live mainly in temperate grassy plains, sheltering beneath rocks and in grass tussocks. They eat small invertebrates, primarily insects. This lizard is considered endangered in Victoria.

TUSSOCK SKINK

PSEUDEMOIA PAGENSTECHEI

SIZE: UP TO 15CM

These skinks are usually brown to olive with continuous stripes and little or no pale speckling, and a black stripe down the vertebra. They are found in the north-east Victorian highlands through to the basalt plains. They are active, sun-loving skinks that bask and forage among low tussocks and vegetation and feed mainly on invertebrates.

GRASSLAND EARLESS DRAGON

TYMPANOCRYPTIS PINGUICOLLA

SIZE: 12CM

These dragons are listed as critically endangered in Victoria and endangered (Commonwealth). In Victoria they are confined to scattered remnants of treeless native grassland on plains west of Melbourne. They perch on low elevations such as stones and scuttle over open spaces between shrubs and tussocks. Sightings have been very scarce in Victoria since the 1960s.

Reptiles



MARBLED GECKO

CHRISTINUS MARMORATUS

SIZE: UP TO 10CM

This gecko is pale to dark grey or pinkish brown with dark lines forming irregular marbling, and sometimes has irregular pale grey blotches. It shelters beneath loose bark and rock but has also been known to enter houses. Geckos feed mainly on arthropods such as insects, spiders and scorpions.

EASTERN BROWN SNAKE

PSEUDONAJA TEXTILIS

OTHER NAME:
COMMON BROWN SNAKE

SIZE: UP TO 1.5M

The eastern brown snake's colour is variable, ranging from shades of brown to almost black. It is widespread throughout dry parts of eastern Australia, including the Maribyrnong catchment. Land clearing has apparently been beneficial to this species as numbers appear to have increased. It is extremely swift, alert, nervous and quick to retaliate if provoked. Their diet is a variety of vertebrates, particularly reptiles and mammals. The species is regarded as dangerously venomous.



Bugs and Insects

Many species of aquatic insects are found in the Werribee River. Some of the most common types are described in this booklet. Different types are suited to different environments, such as fast-flowing water or still pools, the muddy bottom of a creek or stones, various water temperatures and water chemistry.

The aquatic insects that can be found in the Werribee River are also influenced by the geology of the region which affects water chemistry and stream bed material, irregular flows and changes to land use.

The greatest threats to aquatic insect diversity are the irregular flow regime and stormwater pollution.



Bugs and Insects



CEINIDAE

AMPHIPODS

SIZE: UP TO 25MM

Amphipods are small crustaceans and have seven pairs of walking legs and three feathery swimming limbs. Amphipods, which feed on plants and animals, use a range of feeding methods including shredding, filter feeding and grazing. The ceinidae are a common type of amphipod found throughout south-eastern Australia, and live among aquatic vegetation in still to slow-moving water. They are usually green, but can be other colours, including orange.

WATERBOATMEN

CORIXIDAE

SIZE: 1.5-15MM

These slightly flattened bugs have a streamlined body. Their front legs are short and scoop-like, while the middle legs and hind legs are covered with hairs. They are found throughout Australia usually in slow-moving or still waters among aquatic vegetation. Waterboatmen are excellent fliers and so can easily move from one waterbody to another. While underwater, they breathe using an air reservoir, consisting of a bubble of air covering their abdomen and the underside of their wings. They feed on other insects such as mosquito larvae and vegetation. Because of their abundance, waterboatmen are also a good source of food for fish.

DAMSELFLY LARVAE

COENAGRIONIDAE

SIZE: 13-30MM

Larval dragonflies and damselflies are hunters of prey, stealthily stalking or using a sit and wait approach. The coenagrionid larvae typically have slender, brown or green bodies, sometimes with darker markings, which provide good camouflage. They occur throughout temperate Australia and can be found mainly in the lower reaches of the Werribee River.

CADDISFLY LARVAE

HYDROPTILIDAE & LEPTOCERIDAE

SIZE: LESS THAN 5MM

The hydroptilids are very small and their cases are commonly referred to as 'purse-shaped' and are constructed solely or in combination with silk, algae and sometimes fine sand. They are found in a variety of habitats. Some species occur among water plants, while others prefer pebbles and cobbles. They are thought to eat algae (filamentous or benthic), but some have been recorded feeding on the eggs of other invertebrates.

Bugs and Insects



INTRODUCED FRESHWATER SNAIL

PHYSIDAE

SIZE: UP TO 30MM

The introduced freshwater snail is found throughout all reaches of the Werribee River. It has a mottled mantle that is usually visible through its shell and has a fleshy digitate margin (a fleshy finger-like process under the edge of its shell). These snails inhabit a diverse range of aquatic habitats, but most are from slow-moving waters. They graze on algae and are hermaphrodites which makes them capable of self fertilisation, reproducing at least once a year.

DAMSELFLY

ZYGOPETRA

SIZE: 9-50MM

Damselflies are close relatives of the more robust and better known dragonflies. Damselfly larvae can be recognised by their three leaf-like tails and large eyes that allow them to see even behind their back. Damselfly larvae patiently stalk other invertebrates among water plants, using the unfolding action of their lower jaw armed with hooks to grasp prey.



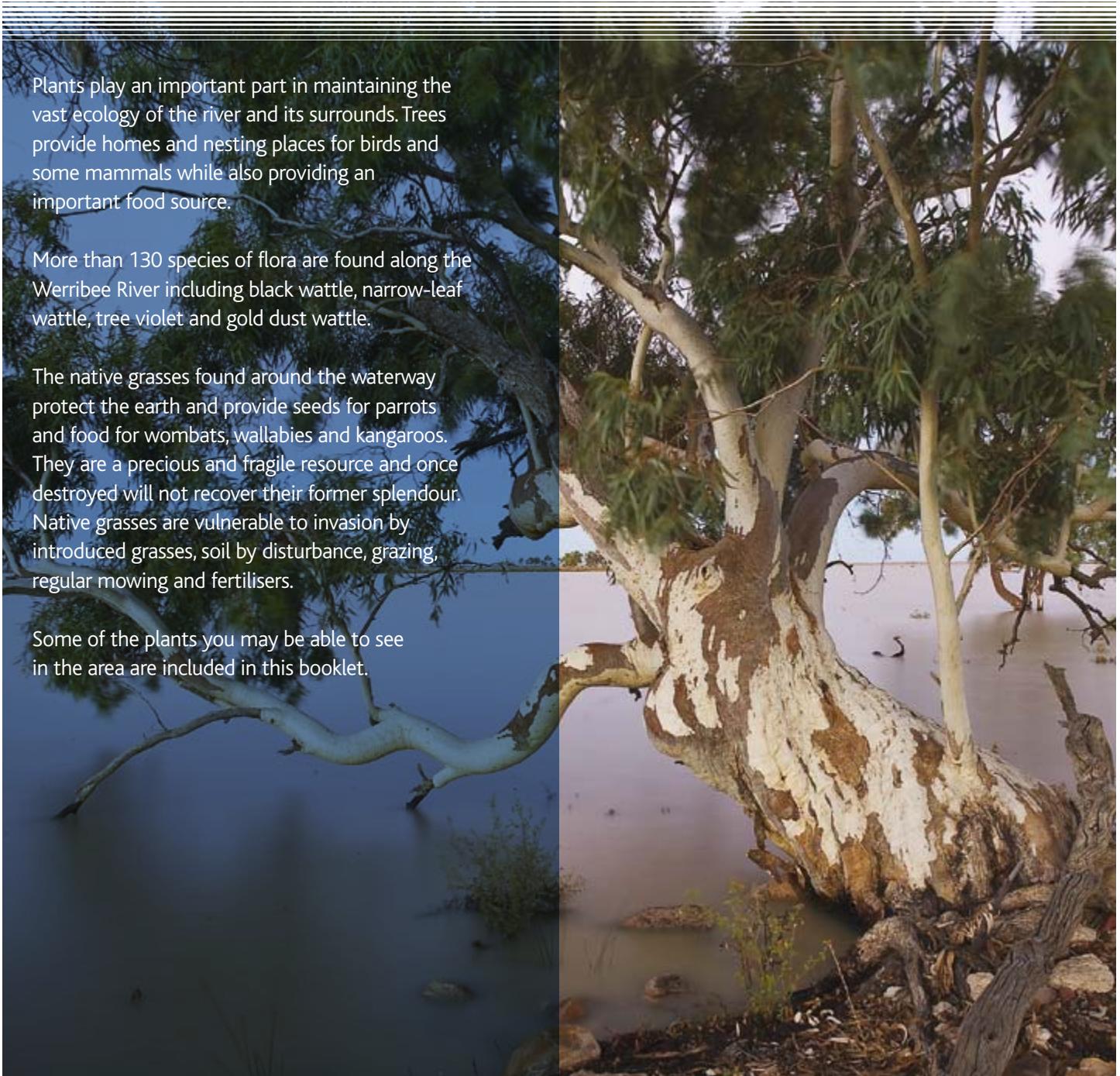
Plants

Plants play an important part in maintaining the vast ecology of the river and its surrounds. Trees provide homes and nesting places for birds and some mammals while also providing an important food source.

More than 130 species of flora are found along the Werribee River including black wattle, narrow-leaf wattle, tree violet and gold dust wattle.

The native grasses found around the waterway protect the earth and provide seeds for parrots and food for wombats, wallabies and kangaroos. They are a precious and fragile resource and once destroyed will not recover their former splendour. Native grasses are vulnerable to invasion by introduced grasses, soil by disturbance, grazing, regular mowing and fertilisers.

Some of the plants you may be able to see in the area are included in this booklet.



Plants



NARROW-LEAF PEPPERMINT

EUCALYPTUS RADIATE

SIZE: 45M

A medium to tall woodland tree, it has dull green, narrow leaves 8 to 16cm long, with a strong peppermint smell when crushed. Profuse small cream flowers can be seen in spring to early summer. It requires well drained soils and tolerates dry conditions when established.



RIVER RED GUM

EUCALYPTUS CAMALDULENSIS

SIZE: UP TO 45M

River red gums are home to many living beings, resident and nomad alike. Even when dead, as logs on the ground, they provide shelter and homes for many plants and animals. Old age for a red gum starts somewhere around 300-400 years. Their thick trunks, spreading crowns and gnarled branches create a grand and graceful character as well as nesting hollows for wildlife.



MANNA GUM

EUCALYPTUS VIMINALIS

SIZE: 25-30M

This tall and spreading forest or woodland tree has long, narrow, fragrant leaves and sheds its cream or white bark in long ribbons. Its cream flowers are mostly seen in summer and it provides many hollows for nesting birds and marsupials. It grows along watercourses and on moist, well drained soils.



YELLOW BOX

EUCALYPTUS MELLIODORA

SIZE: UP TO 30M

The sweet smelling blossoms of this tree attract possums, birds and beekeepers who gather its famous honey. The tree gets its name from the bright yellow inner layer of bark. The term 'box' was given by early settlers who thought its tough, durable wood was similar to English boxwood. The rough, scaly bark of this tree is home for many spiders, bugs, beetles and other insects.

Plants



BLACKWOOD

ACACIA MELANOXYLON

SIZE: UP TO 30M

The furrows and cracks in Blackwood trunks provide homes for insects and spiders, which hide under the bark and burrow into the wood. The tree also provides excellent habitat for wildlife. This beautiful, long-living wattle has dense foliage, creamy lemon winter/spring flowers and dark, heavy wood. A lot of fine Australian furniture has been made from its timber.

SWEET BURSARIA

BURSARIA SPINOSA

SIZE: UP TO 8M

Flowering time transforms this scraggly plant into a splendid highlight of the dry summer landscape. Its sweetly scented cream flowers develop into small brown seed vessels that rattle in the wind. Being thorny, bursarias offer refuge for small birds. This humble plant rose to fame in 1987 when it was found to provide the exclusive home of the extremely rare Eltham copper butterfly.

SILVER WATTLE

ACACIA DEALBATA

SIZE: UP TO 20M

In August and September the yellow blossoms of this tree light up the environment surrounding the river. Easily identified by its feathery foliage and abundant early flowers, silver wattle has grey-green leaves and was given its name because of silver patches on the bark.

BLACK WATTLE

ACACIA MEARNSII

SIZE: UP TO 15M

People appreciate these wattles for their bright yellow flowers and delicate, feathery foliage. But to birds and other creatures, they are well stocked bush pantries. Some 350 kinds of insects were found in one old tree. Sugar gliders feed on gum exuded from the bark and black cockatoos rip open the trunks in search of insects. These fast-growing trees, which flower in spring and early summer, are often used to control soil erosion.

Plants



TREE VIOLET

HYMENANTHERA DENTATE

SIZE: UP TO 4M

Tree violets grow along river and creek banks and are a favourite haunt for small birds. The sweet perfume of these shrubs may encourage you to sniff their many tiny bell-shaped flowers but beware, the branches are armed with sharp thorns! Their blue-purple berries, which drop in summer, are often eaten by lizards and skinks.

RIVER BOTTLEBRUSH

CALLISTEMON PALUDOSUS

SIZE: UP TO 7M

These plants are now far less common than before European settlement. They have stiff, sharp-pointed leaves. By contrast, new leaves are reddish, and soft, silky and lovely to touch. Look for some very old, spreading examples along river banks.

SWAMP GUM

EUCALYPTUS OVATA

SIZE: UP TO 30M

The swamp gum is a variable, small to medium-size woodland tree featuring wavy, broad, dark green leaves. Its bark sheds in strips from upper branches, leaving smooth, white bark on the lower trunk. It has cream flowers mostly through winter to early spring. Swamp gums grow in poorly drained, swampy sites and depressions in the landscape. *Eucalyptus yarraensis* (Yarra Gum) is a very similar tree with rough bark on all branches and slightly smaller leaves.

DROOPING SHEOAK

ALLOCASUARINA VERTICILLATA

SIZE: 5-9M

This medium-size tree has continuous rough grey bark and needle-like branchlets with tiny, dark green leaves that hang from the tree, giving the characteristic 'weeping' appearance. Separate male and female flowers occur on separate plants and so these trees can be defined as male or female. Male flowers are small and golden brown, occurring on spikes 4-12cm long. Female trees produce a cylindrical cone 2-5cm long and 2-3cm in diameter.

Plants



LIGHTWOOD

ACACIA IMPLEXA

SIZE: 3-15M

This small shrub or tree features a single trunk and rough grey to red-brown bark. Its leaves are curved and grow up to 18cm long, tapering to a fine point. At least three prominent veins are visible on the 'leaf'. Pale creamy yellow flowerheads appear during summer, between December and March. Pods form in characteristic coiled bundles during autumn and winter.

CHRISTMAS BUSH

PROSTANTHERA LASIANTHOS

SIZE: 8M

Around Christmas time, this bush displays masses of showy white flowers splashed with orange and purple. When crushed, its soft, lush green leaves have a strong minty aroma. It is a relative of rosemary, thyme and mint and grows in cool protected areas along the river and creeks.

HAZEL POMADERRIS

POMADERRIS ASPERA

SIZE: UP TO 12M

This very hardy, leafy shrub or small tree features soft leaves which are dark green on top and light green underneath. Masses of yellow-green flowers occur from spring to summer. Its leaves are food for the rare yellow spot jewel butterfly and looper caterpillar and a treat for insects.

SNOWY DAISY BUSH

OLEARIA LIRATA

SIZE: UP TO 5M

This large shrub features slender branches covered with whitish, short woolly hairs. Its leaves have a smooth dark green surface and the underneath has dense hair. It flowers in October.

Plants



COMMON CASSINIA

CASSINIA ACULEATE

OTHER NAME: DOGWOOD

SIZE: UP TO 4M

This fast-growing, hardy, narrow-leaved and open shrub produces a striking, dense, domed spray of white flowers in summer. Cassinia has aromatic foliage and is often used as a specimen plant in native gardens and for dried flower arrangements. Cassinia is frequently a pioneer species after fire or other disturbance.

MUTTONWOOD

RAPANEA HOWITTIANAE

SIZE: UP TO 10M

The tough leaves of this tall shrub or small tree are shiny dark green on top and dull below with wavy margins. Small green flowers are found along small branches in spring to early summer. It is an excellent mid-storey plant which grows in shade and can form thickets. Its fruit provides food for birds. Muttonwood grows on moist, well drained soils along waterways but will withstand extended dry periods when established. It can be confused with the weed *Pittosporum undulatum*.

