



Greater Sydney Region

Identification Guide



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Photography

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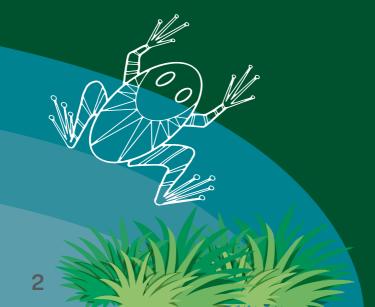
Litoria latopalmata



First Nation's acknowledgement

Greater Sydney Local Land Services acknowledges that it operates in and provides services throughout the Country of First Nations people in the Greater Sydney Region. Local Land Services recognises that First Nations people hold a continuous and deep connection to Country, which is also significant to the broader community.

For First Nations people, Country encompasses everything within the physical, cultural and spiritual landscape. It includes landforms, waters, air, trees, rocks, plants, animals, foods, medicines, minerals, the sky and sea, as well as sacred places. It also includes cultural practices, kinship, knowledge, ceremony, songs, stories, art, spiritual beings and people: past, present and future.



Greater Sydney Local Land Services recognises and respects Elders and cultural knowledge holders, both past and present, while also acknowledging and respecting the unique and diverse enduring cultures and histories of all First Nations people. We believe that caring for Country, protecting and promoting First Nations cultures, heritage, land

management practices and spiritual beliefs are paramount to our relationship with Country, which ultimately benefits the whole community.

By supporting selfdetermined futures and strengthening cultural values for First Nations people, Greater Sydney Local Land Services can contribute to improved relationships and resilient, sustainable communities in the region. First Nations people have cared for and lived with this Country since the creation time and have a profound relationship with it based on reciprocity. These First Nations understood the complex relationship Country had with the people, their role in Country, and the significance the environment played in their lives and the lives of generations to come.



The small and often unseen frogs were very important to the daily lives of First Nations peoples in the Greater Sydney Region. Frogs played significant roles in the environment, culture and spiritual beliefs of the people. They served as bio-indicators of seasonal patterns and incoming weather events, and their presence helped people determine the health of waterbodies, ensuring clean drinking water. Additionally, some communities relied on frogs, their tadpoles and eggs as a food source.



Frogs were also significant in the spiritual beliefs of First Nations peoples, often embodying totemic identities and holding key places in complex kinship belief systems. People took responsibility for caring not only for the frogs themselves but also for their habitats, such as swamps, creeks, wetlands and habitat trees, as part of a holistic understanding of the ecosystem.



Frogs held great cultural and environmental significance for First Nations people, with some frog species being the focus of their own spiritual and ceremonial songlines, creation narratives and traditional lore. These stories connected all beings to each other and governed the proper conduct and role of First Nations communities in Country.

One of the more well-known frogcentered creation stories is that of Tjiddaleh, also known as Tiddalik the greedy frog. Similar stories exist across Australia with slight differences in names and events but are generally connected. It is believed that

Tjiddaleh's story may relate to water-holding frogs found in the arid parts of Australia.

Despite their small size, frogs played an important role in First Nations communities throughout

Greater Sydney and beyond. They are recognised, respected and valued for the ecological niche they hold. It's important to reflect on this aspect as we appreciate the work that land managers undertake in looking after our aquatic ecosystems.

Introduction

The Greater Sydney
Region extends from
some of the most
intensely urbanised
localities in NSW,
through to vast world he
protected wilderness are

through to vast world heritage protected wilderness areas, and expansive coastal waterways.

The environment consists of a central shale/clay basin surrounded by elevated sandstone escarpments. The basin is drained by the Hawkesbury–Nepean River as well as the Parramatta, Georges, Cooks and Wyong rivers. On the coast, these rivers form some 100 kilometres of coasts and estuaries including Tuggerah Lake, Brisbane Waters, Pittwater, Narrabeen Lagoon, Port Hacking and the Ramsarlisted Towra Point.

There are extensive wetlands within the inland floodplains of the Hawkesbury-Nepean River including the Broadwater, the Richmond Lowlands and Pitt Town Lagoon. Patches of unique hanging swamps are found in elevated areas of the Blue Mountains

and Gosford.



With such diverse ecosystems and habitats, it is no wonder the Greater Sydney Region has such a rich diversity of Amphibian fauna, with more than forty-four species of native frog occurring within the region.

This booklet aims to assist with the identification of these native frog species as well as one invasive species, the cane toad (*Rhinella marina*). Unfortunately frogs across Australia face many threats with land clearing, feral predators or competitors, pollution, climate change, and an invasive fungal disease leading to the decline of many species.

While some species are thriving and commonly seen within local backyards, the region is also home to at least nine threatened frog species that have declined in number. The conservation of our local frogs depends on our understanding of them and with the development of fantastic citizen science projects everyone can play a role in understanding where frogs are and how their populations are changing over time. Citizen science projects also help you to learn to identify the frogs you find.



Top: Uperoleia mahonyi Bottom: Mixophyes fasciolatus

User guide

This aim of this guide is to assist in the identification of frogs by providing clear and simple features to identify species. However, because many frogs use their calls to tell each other apart, some species can look incredibly similar and pose an identification challenge to even the most experienced frog enthusiast. In other cases the one species of frog may be so variable that it cannot be simply explained within this guide. In cases where identification proves difficult, we encourage the user to go to citizen science projects such as FrogID to confirm frog call identifications with Australian Museum scientists, and iNaturalist to confirm image identifications with the broader public.

Within this guide, frogs are grouped by those that are closely related to each other, first in their major families, such as *Limnodynastidae*, and then into their genus and individual species, indicated by the italicised text i.e. *Genus species*. This provides a natural system to find those frogs that might be most easily confused with species in the same genus usually looking similar, and those in the same family more similar to each other, than those in a separate family.

The species profiles begin with the toads – family *Bufonidae*.

There is only one toad in Australia, the introduced cane toad (*Rhinella marina*). This guide provides you with ready information on how to identify the difference between cane toads and commonly confused native species, what to do if you find a suspected cane toad and how to report it.



Features used to identify frogs



Tree frogs (Pelodryadidae) that climb have large distinct toe-discs

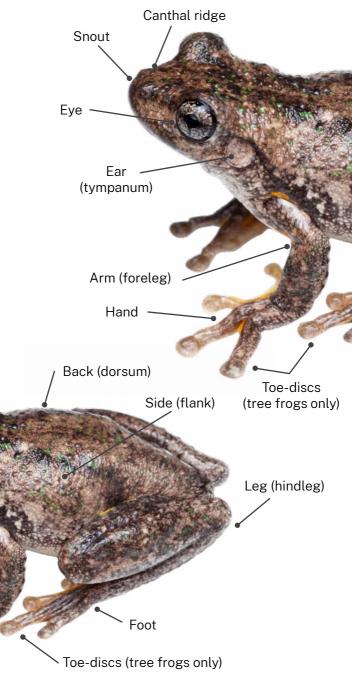


Tree frogs (Pelodryadidae) that do not climb have smaller toe-discs



Toad (Bufonidae), foamnesting frogs (Limnodynastidae) and ground frogs (Myobatrachidae) toes taper to a blunt end with no disc.

Typical frog identifying features



Citizen science with FrogID

FrogID is the Australian Musuem's national frog identification project, which involves a free smartphone app to record frog calls whenever they are heard calling. Once downloaded the app can be used to read information, listen to example calls, and record frog calls for expert identification, all without internet reception.

The data obtained through FrogID helps scientists and land managers fill important knowledge gaps and better-understand the distributions, breeding seasons and the breeding habitat of Australia's frogs. Through FrogID, we can determine how frogs are adapting to a changing environment and track the distribution of the introduced cane toad. Record frog calls with FrogID to help monitor local native frogs and any presence of the cane toad in the Greater Sydney Region.



How to get involved with FrogID

- 1. Visit <u>www.FrogID.net.a</u>u
- 2. Register a free FrogID account
- 3. Download the FrogID app
- 4. Visit your local frog habitat and record any frogs you hear calling

Use your phone

Become a citizen scientist

Help conserve our frogs



Frogs and disease

One of the primary causes for the decline of frogs around the world has been the spread of a pathogen called chytrid fungus (*Batrachochytrium dendrobatidis*) and the frog specific disease it causes, chytridiomycosis. In Australia this has led to the probable extinction of seven species and the decline in many more. Because of this disease and the possibility of introducing other new diseases, it is best not to touch frogs at all and important to follow hygienic protocols if frogs do need to be handled.

Frog hygiene protocol

Frogs, and animals in general, should never be moved between locations.

Doing so can increase the risk of transferring disease from one location to another, in fact even if the disease is already present in both locations mutations of the disease could still be specific to one location, so you could be increasing the risk of population decline in an area.

If you do find a frog in a location where it needs to be moved, such as inside your house, then it is safe to move it by wearing unpowdered disposable gloves or wetting your hands before picking it up. Alternatively, gently shepherd the frog into a clean container.

The frog should be moved into a moist dark location as short a distance away as possible – under a plant in a nearby garden is ideal.

After handling any frog, wash your hands thoroughly with soap to remove any potential pathogens or irritants produced by the frog. Any gloves or containers used should be discarded or thoroughly washed.

If you have to move a frog, follow these guidelines...



Wear unpowdered disposable gloves.

Wash/wet your hands with water before picking up

a frog.

OR...



OR...

Use a clean container to transport your frog.



Place frog in a new location that is moist, dark and not too far away from where you found it.



Wash your hands and/or containers thoroughly afterwards.

Toads

Family: Bufonidae

There is only one toad in Australia, the introduced cane toad.

Toads lay their eggs in long attached strings of eggs which are quite distinct.

While it is commonly expressed that toads are rough-skinned, warty and dry, these features are actually present in a variety of native frogs especially within the ground frogs and foam nesting frogs.

Toads completely lack toe pads, as do some native frogs. No single feature can be easily used to distinguish the introduced cane toad from native frog species.



Cane toad

Rhinella marina

J F M A M J J A S O N D

Key identification features

- Silver-gold eye with protruding eyebrow
- Hard bony ridge over snout
- Large glands on neck
- Bumpy skin in adults
- Faint marbling on belly

Habitat

Ponds, swamps and flooded areas. Invasive and can adapt to new habitats including urban environments.

Other information

The cane toad is an invasive species, that should be reported immediately.

Conservation status

Invasive pest



A close look at the identifying features of cane toads



One of the most distinctive features of the cane toads is their call – a low, long, trill that is not like the call of any native species.

Use the FrogID app to make yourself familiar with the call. Monitor your local native frogs regularly using the app.

NSW CANE TOAD BIOSECURITY ZONE MAP







No toe-pads, leathery webbing between toes, about half webbed.

Identifying native frogs from cane toads

Which is which?

Because cane toads have not colonised the Greater Sydney Region but occasionally hitch a ride to the area, it is important to keep an eye and ear out for cane toads. Report any sightings immediately to DPI and record any cane toad calls with the FrogID app. Learn to differentiate some of our similar-looking native frogs from cane toads to aid in your reporting.



Cane toad (Rhinella marina)

- Large gland on neck.
- Bony ridge over eye and snout.
- · Dry looking bumpy skin.
- Short fingers and toes with darker brown tips.

Juvenile

- · May lack gland on neck.
- Horizontal pupil.
- · Gold iris.
- Often covered in redorange spots.



Eastern banjo frog (Limnodynastes dumerilii)

- · No gland on neck.
- Large gland on top of back legs.
- No bony ridge over nose.



Giant barred frog (Mixophyes iteratus)

- · No gland on neck.
- · Vertical pupil.
- · Strongly webbed toes.



Giant burrowing frog (Heleioporus australiacus)

- · No gland on neck.
- Usually yellow spots on sides
- · Spines on males fingers.



Bibron's frog (Pseudophryne bibronii)

- · No gland on neck.
- Red-orange patch on upper arm.



Ornate burrowing frog (Platyplectrum ornatum)

- · No gland on neck.
- · No bony ridge over nose.
- · Vertical pupil.



Froglets (Crinia spp.)



• Fairly smooth skin.

 Long pointy shape and relatively flattened body.



Glandular ground frogs (Uperoleia spp.)



· Gland on neck.

- Some: yellow-orange patch on upper arm.
- All: yellow-orange patch on thigh.

Juvenile cane toads

Juvenile cane toads start without the distinctive gland on the neck and slowly develop it. This can lead to confusion with many small native frogs.

Juvenile cane toads are active both day and night and are usually present in abundance.

Any toads under 4 cm may look similar to a native frog. You can tell them apart by their upright stance.

If you see a large number of small brown frogs that look similar, especially if they are active in the daytime, you should take a photo and report it.



What to do if you find a suspected cane toad

Have you found a cane toad?

Catch it

- Don't harm it it might actually be a native frog.
- Wear protective clothing such as disposable gloves, glasses, long sleeves and eye protection before touching it.
- Watch out for poison. When stressed, cane toads can ooze and sometimes squirt poison from glands behind the head.
- If you can do so safely, keep it in a well-ventilated container with a little water in a cool location as it may take 24 hours to determine the species once you report it.

Report it



Take a photo (if you can).



Record your location.



Report the detection using the NSW DPI Report an unusual animal form found at dpi.nsw.gov.au/biosecurity/ forms/report-an-unusualanimal-sighting



If you believe you have found their distinctive eggs, please report these too.

Foam nesting frogs

Family: Limnodynastidae

This family is separated by the females characteristic of whisking her eggs into a foamy mass that floats on the water surface.

All frogs in this family live on the ground and many burrow, leading to a fairly round, squat and rotund body shape.

Most species have a gland-like stripe behind the mouth which is less conspicuous or absent in ground frogs – Myobatrachidae.

They completely lack toe pads.

The following six foam nesting frog species occur in the Greater Sydney Region.

Spawn of a Fletcher's frog



Tusked frog

Adelotus brevis

J | F | M | A | M | J | J | A | S | O | N | D

Key identification features

- Dark patch between eyes
- Bright red mottling in groin and thighs
- Banded pattern on fingers and toes
- · Bumpy skin

Habitat

Slow moving creeks and ponds in forested areas north of Gosford.

Other information

Males have tusks inside the mouth used to fight other males.

Conservation status

Not threatened

Similar species

Lechriodus fletcheri, Limnodynastes peronii, Limnodynastes tasmaniensis and Philoria sphagnicola.



Giant burrowing frog

Heleioporus australiacus



Key identification features

- Usually yellow spots on sides
- Distinct grey-purple colouration
- Body large and rotund
- Bumpy skin

Habitat

Pools in sandstone creeks. Within the Sydney region it is restricted to Hawkesbury Sandstone.



Other information

This frog has declined due to habitat clearance and disturbance; it breeds in unpolluted creek-lines. Please record with FrogID.

Conservation status

Vulnerable

Similar species

Limnodynastes dumerilii.



Fletcher's frog

Lechriodus fletcheri

J F M A M J J A S O N D

Key identification features

- Rough skin and ridges on back
- Dark marking over top of ear

Habitat

Temporary puddles in wet forest mainly in mountainous areas in the north of the region.



Other information

Usually flattens itself to camouflage as a leaf when approached.

Conservation status

Not threatened

Similar species

Mixophyes fasciolatus and Litoria wilcoxii.



Eastern banjo frog

Limnodynastes dumerilii



Key identification features

- Large gland on back legs
- Body is large and rotund

Habitat

Occurs in most habitats around ponds and slow-moving creeks or rivers. Found across the Greater Sydney Region.

Other information

Tadpoles can reach a total length of up to 7 cm and take four to five months to develop into frogs.

Conservation status

Not threatened

Similar species

Heleioporus australiacus, Limnodynastes terraereginae and Neobatrachus sudellae.



Striped marsh frog

Limnodynastes peronii

J F M A M J J A S O N D

Key identification features

- Dark and light stripes down back
- Completely lacks any toe pads

Habitat

Habitat generalist, preferring ponds over creeks. Found across the Greater Sydney Region.

Other information

Common in backyards even in urban areas, call often mistaken for a leaky tap!

Conservation status

Not threatened

Similar species

Limnodynastes tasmaniensis and Litoria nasuta.



Spotted marsh frog

Limnodynastes tasmaniensis



Key identification features

- Irregular splodges and spots on back
- Sometimes a white or red line down mid-back

Habitat

Ponds in open areas and flooded grasslands. Found across the Greater Sydney Region.

Other information

Common in disturbed habitat including farmland.

Conservation status

Not threatened

Similar species

Limnodynastes peronii.



Ornate burrowing frog

Platyplectrum ornatum



Key identification features

- Toes without webbing
- Rotund body

Habitat

Ponds in a variety of habitats, often with sandy soil. Potentially found across the Greater Sydney Region.

Other information

Body colouration and pattern highly variable.

Conservation status

Not threatened

Similar species

Neobatrachus sudellae.



Ground frogs

Family: Myobatrachidae

This family lays individual jelly-covered eggs, sometimes attached to sticks or otherwise randomly scattered.

Several species lay their eggs on moist ground to later be washed into a puddle.

All species occur on the ground and many hide under damp leaf litter. While some are rotund they are generally more flattened in shape than the foam nesting frogs.

They completely lack toe pads.

The following thirteen ground frog species occur in the Greater Sydney Region.

Red-backed frog



Common eastern froglet

Crinia signifera



Key identification features

- Lacks glands
- Small size and elongate body
- · Brown and often striped
- Best identified from other Crinia by their call

Habitat

Habitat generalist. Found across the Greater Sydney Region.

Other information

One of the most common and widespread frog species, including in backyards and urban areas.

Conservation status

Not threatened

Similar species

Other Crinia and Pseudophryne species.



Wallum froglet

Crinia tinnula

J F M A M J J A S O N D

Key identification features

- · Lacks glands
- Small size and elongate body
- Brown to bronze, often striped
- Best identified from other Crinia by their call

Habitat

Restricted to coastal swamps that are slightly acidic.

Other information

Considered threatened and the Greater Sydney Region is its most southern population. Please record with FrogID.

Conservation status

Vulnerable

Similar species

Other Crinia and Pseudophryne species.



Stuttering frog

Mixophyes balbus



Key identification features

- Smooth skin
- Dark flecks on upper lip

Habitat

Flowing streams in well forested mountain ranges. Often associated with rainforest.



Other information

Sometimes a blue streak can be seen at the top of the eye. Its Endangered status means it has the potential to be found in the areas indicated on the map. Please record with FrogID.

Conservation status

Endangered

Similar species

Lechriodus fletcheri, other Mixophyes species.



Great barred frog

Mixophyes fasciolatus



Key identification features

- Smooth skin
- Pale streak on upper lip
- Dark eyes

Habitat

Ponds in forested areas.

Other information

More generalist than other *Mixophyes* species but still requires forest with l

requires forest with leaf litter to hide in.

Conservation status

Not threatened

Similar species

Lechriodus fletcheri, other Mixophyes species.



Giant barred frog

Mixophyes iteratus



Key identification features

- Smooth skin
- Heavily mottled upper lip
- Bright golden eyes

Habitat

Flowing streams in well forested areas.

Other information

This is among
Australia's largest
frogs. Please record with FrogID.

Conservation status

Endangered

Similar species

Other Mixophyes species.



Haswell's froglet

Paracrinia haswelli

J F M A M J J A S O N D

Key identification features

- Dark strip from eye, over ear and arm
- Red marking on groin, thighs and often armpits

Habitat

Ponds generally in sandier coastal areas.

Other information

Can range in colour from pale silver to dull red.

Conservation status

Not threatened

Similar species

Crinia species.



Red-crowned toadlet

Pseudophryne australis

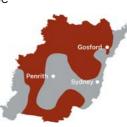
J F M A M J J A S O N D

Key identification features

- Red-orange crown marking on head
- Squat body shape
- Lacks glands

Habitat

Temporary puddles or creeks in forests and is restricted to Hawkesbury sandstone areas.



Other information

Has declined due to habitat disturbance, requiring unpolluted water. Please record with FrogID.

Conservation status

Vulnerable

Similar species

Pseudophryne bibronii.



Bibron's toadlet

Pseudophryne bibronii



Key identification features

- · Yellow-orange patch above arm
- Squat body shape
- Lacks glands

Habitat

Temporary ponds, puddles or creeks generally in more forested areas and coastal heath.

Other information

Has patchily declined but is still found across the Greater Sydney Region.

Conservation status

Not threatened

Similar species

Pseudophryne australis, Uperoleia and Crinia species.



Red-backed toadlet

Pseudophryne coriacea



Key identification features

- Red colouration across whole back
- Squat body shape
- Lacks glands

Habitat

Temporary ponds, puddles and creeks.

Other information

Sometimes has a white stripe along its side.

Conservation status

Not threatened

Similar species

Pseudophryne bibronii and Pseudophryne australis.



Dusky toadlet

Uperoleia fusca

J F M A M J J A S O N D

Key identification features

- Large gland behind eye and often a second gland lower on its side
- Red-orange colour patch in groin

Habitat

Generalist including disturbed habitat in the northern half of the Greater Sydney Region.



Other information

Hard to identify from Uperoleia laevigata without expert call analysis. Please record with FrogID.

Conservation status

Not threatened

Similar species

Other *Uperoleia* and *Pseudophryne* species.



Smooth toadlet

Uperoleia laevigata

J F M A M J J A S O N D

Key identification features

- Large gland behind eye and often a second gland lower on its side
- Red-orange colour patch in groin

Habitat

Generalist including disturbed habitat. Found across the Greater Sydney Region.

Other information

Hard to identify from *Uperoleia fusca* without expert call analysis. Please record with FrogID.

Conservation status

Not threatened

Similar species

Other *Uperoleia* and *Pseudophryne* species.



Mahony's toadlet

Uperoleia mahonyi

J F M A M J J A S O N D

Key identification features

- Large gland behind eye and often a second lower on side
- Red-orange colour patch in groin
- · Mottled colouration on lower sides

Habitat

Sandy coastal ponds in the Central Coast region.

Other information

This Endangered species is threatened by habitat loss. Please record with FrogID.

Conservation status Endangered

Similar species

Other *Uperoleia* and *Pseudophryne* species.





Tyler's toadlet

Uperoleia tyleri

J F M A M J J A S O N D

Key identification features

- Dark brown or grey back
- Often a triangular patch on head
- Yellow shoulders and back of the thighs
- · Diamond-shaped pupil

Habitat

Often remain at bottom of water bodies.
Scattered reports in the Greater Sydney Region. More common south of Wollongong.



Conservation status

Not threatened

Similar species

Uperoleia laevigata and Uperoleia martini.

Credit: Jodi Rowley/Australian Museum



Tree frogs

Family: Pelodryadidae

This group has many members well suited to climbing, but a few that live mainly on the ground. They are relatively flattened, long legged frogs; features that assist with their climbing lifestyle. All species have toe pads, which also help them to climb.

Many tree frogs display bright colours like green or yellow, but there are some exceptions of muted brown.

This group's egg laying strategy includes attaching eggs to vegetation just below or above streams, permanent and temporary pools and even water filled holes in tree trunks.

The following 22 tree frog species occur in the Greater Sydney Region.

Litoria peronii



Green and golden bell frog

Litoria aurea

J F M A M J J A S O N D

Key identification features

- Usually brightly green and golden in colour
- Blue colouration on thighs

Habitat

Habitat generalist but has declined in all habitats except the coast.

Other information

This Endangered species has heavily declined, but it is known to live across the Greater Sydney Region. Please record with FrogID.

Conservation status

Endangered

Similar species

Litoria fallax.



Green-thighed frog

Litoria brevipalmata



Key identification features

- Vivid green colouration in groin
- White or pale stripe across top lip

Habitat

Paperbark and saw-sedge swamps in the north east of the region.

Other information

Calls for just a couple of nights after intense rain. Please record with FrogID.

Gosferd •
Penrith • Sydney •

Conservation status

Vulnerable

Similar species

Litoria wilcoxii and Litoria jervisiensis.



Green tree frog

Litoria caerulea



Key identification features

- Often green but can turn brown
- Large and generally rotund
- Skin fold over ear
- Sliver-gold eye colour

Habitat

Generalist, usually breeding in flooded areas or ponds after heavy rain. Found across the Greater Sydney Region.

Other information

A common backyard species especially in rural and farmland areas, often living in gutters or pipes.

Conservation status

Not threatened

Similar species

Litoria chloris and Litoria gracilenta.



Red-eyed tree frog

Litoria chloris



Key identification features

- Uniform green across body
- Red eyes
- Often yellow colour under body and limbs

Habitat

Temporary puddles in forested areas in the north east of the region.

Other information

Generally, breeds after heavy rainfall.

Conservation status

Not threatened

Similar species

Litoria caerulea and Litoria gracilenta.



Gosford •

Blue Mountains tree frog

Litoria citropa

F M A M J J A S O N D

Key identification features

- Red colour through groin, thigh and armpit
- Body is mottled brown and green in colour

Habitat

Streams on sandstone east of the mountains.

Other information Usually calls from

near fast-flowing water.

Conservation status

Not threatened

Similar species

Litoria daviesae.



Eastern dwarf tree frog

Litoria fallax



Key identification features

- White stripe from armpit half-way along upper lip
- Narrow body shape with pointed snout
- Small body size

Habitat

Ponds and wetlands, often in suburban backyard ponds. Found across the Greater Sydney Region.

Other information

Can quickly change colour from completely green to completely brown or somewhere in between.

Conservation status

Not threatened

Similar species

Litoria phyllochroa.



Gosford •

Wallum rocket frog

Litoria freycineti

Key identification features

- Pale tear-drop shaped mark in front of eve
- Sharply pointed snout
- Mottled back pattern
- Bumps and ridges on back

Habitat

Sandy coastal swamps and sandstone creeks.

Other information Spends most of its time on the ground.

Conservation status

Not threatened

Similar species

Litoria jervisiensis and Litoria nasuta.



Graceful tree frog

Litoria gracilenta



Key identification features

- Green body
- Red-orange eyes
- Yellow line from snout across eyelid and above ear

Habitat

Open coastal habitats, breeding in temporary puddles and flooded areas after rain. Invasive population in Sydney.

Gostord
Penrith Sydney

Other information

Sometimes turns up transported in fruit, vegetables or building materials.

Conservation status

Not threatened

Similar species *Litoria chloris.*

0 mm 10 20 30 40 45 50 60 70 80

Jervis Bay tree frog

Litoria jervisiensis

J F M A M J J A S O N D

Key identification features

- Yellow in armpits and orange inner thighs
- Long and thin shape
- Obscure pale stripe under eye

Habitat

Swamps and ponds in coastal heath habitat.

Other information

Often breeds in water that is somewhat acidic.



Conservation status

Not threatened

Similar species

Litoria verreauxii, Litoria littlejohni and Litoria dentata.



Broad-palmed rocket frog

Litoria latopalmata



Key identification features

- Pale tear-drop shaped mark in front of eye
- · Strongly pointed snout
- Relatively plain back colouration

Habitat

Diverse habitats, calls around ponds and flooded areas. Found across the Greater Sydney Region.

Other information

Common in rural and farmland habitats in open areas around ponds.

Conservation status

Not threatened

Similar species

Litoria freycineti and Litoria nasuta.



Stony Creek frog

Litoria lesueuri

J F M A M J J A S O N D

Key identification features

- Body pale to dark brown with a narrow black stripe from the nose, through the eye to top of arm
- Males can have yellow patches on groin and legs

Habitat

Restricted to the areas near fast-flowing mountain streams.

Other information

Sometimes shelter some distance away from streams.



Conservation status

Not threatened

Similar species

Litoria wilcoxii, Litoria ewingii, Litoria latopalmata and Litoria verreauxii.



Northern heath frog

Litoria littlejohni



Key identification features

- Red-orange in armpit, groin and thigh
- Dark brown stripe from the snout, over the eye and ear

Gosford

Large size compared to similar species

Habitat

Ponds and slow-flowing sandstone creeks.

Other information

This vulnerable species can be assisted by protecting and minimising disturbance to ponds and streams. Please record with FrogID.

Conservation status

Endangered

Similar species

Litoria jervisiensis and Litoria verreauxii.



Striped rocket frog

Litoria nasuta

J F M A M J J A S O N D

Key identification features

- A wide, dark brown stripe from the tip of the snout to the groin with dark blotches down the sides
- Pointed snout and very long legs
- Males have a yellow throat

Habitat

Open forests, woodlands and Melaleuca swamps in the north east of the region.



Other information

Can leap two metres at a time.

Spends most time on the ground as it's small toe pads limit climbing.

Conservation status

Not threatened

Similar species

Other Litoria rocket frogs.



Peron's tree frog

Litoria peronii



Key identification features

- · Grey colour with green flecks
- Bright yellow and black markings on inner thighs
- Pupil appears crossed-shaped

Habitat

Diverse habitats; commonly in backyards and houses, including in urban areas; calls around ponds. Found across the Greater Sydney Region.

Other information

Very similar to *Litoria tyleri*, but best identified by call.

Conservation status

Not threatened

Similar species

Litoria tyleri.



Green stream frog

Litoria phyllochroa

J F M A M J J A S O N D

Key identification features

- Green body colouration
- Orange-red armpits and thighs
- Dark and light stripes from the snout, over the eye and ear

Habitat

Streams in forest habitats.

Other information

Can occur with the very similar *Litoria* barringtonensis but has a different call.



Conservation status

Not threatened

Similar species

Litoria barringtonensis.



Screaming tree frog

Litoria quiritatus

J F M A M J J A S O N D

Key identification features

- · Brown hourglass pattern on back
- No bright colours in groin or inner thighs
- Yellow vocal sac and yellow body when calling.

Habitat

Generalist, breeding in puddles and ponds after heavy rain.

Other information

A common species found across the Greater Sydney Region that calls in ponds and puddles after heavy rain, it makes an extremely loud call.

Conservation status

Not threatened

Similar species

Litoria dentata, Litoria verreauxii, Litoria jervisiensis, Litoria littlejohni and Litoria rubella.



Whirring tree frog

Litoria revelata

J | F | M | A | M | J | J | A | S | O | N | D

Key identification features

- Obscure white stripe under eye
- Small bumps on eyelid

Habitat

Paperbark and saw-sedge swamps, generally in forested areas.

Other information

Males turn yellow when calling.

Conservation status

Not threatened

Similar species

Litoria jervisiensis and Litoria verreauxii.



Tyler's tree frog

Litoria tyleri



Key identification features

- Grey or yellow colour with tiny green dots
- Indistinct yellow and black markings on inner thighs
- Pupil appears crossed-shaped

Habitat

Ponds and swamps within forested areas. Found across the Greater Sydney Region.

Other information

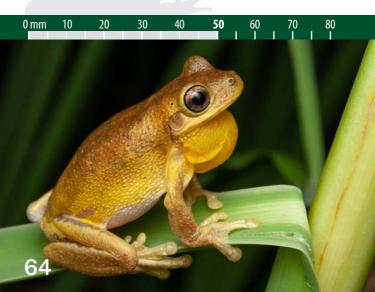
Very similar to *Litoria peronii*, but best identified by call.

Conservation status

Not threatened

Similar species

Litoria peronii.



Whistling tree frog

Litoria verreauxii



Key identification features

- Small toe pads
- Dark stripe from nostril, through the eye and over the ear

Habitat

Diverse habitats and water bodies. Found across the Greater Sydney Region.

Other information

Common in rural areas and may call around houses in water pots or feature ponds.

Conservation status

Not threatened

Similar species

Litoria jervisiensis, Litoria littlejohni and Litoria revelata.



Eastern Stony Creek frog

Litoria wilcoxii



Key identification features

- Dark stripe from snout, through the eye and above the ear
- Somewhat pointed snout
- Mottled pale colour on inner thighs

Habitat

Diverse habitats, breeds along streams but often found far away from water.

ns but
far away
Penrith
Sydney

Other information

Males turn bright, golden yellow when calling.

Conservation status

Not threatened

Similar species

Litoria brevipalmata and Litoria jervisiensis.



Further reading

Anstis, M (2017) Frogs of Australia: Reed concise guide, Reed New Holland Publishers.

Anstis, M (2017) Tadpoles and frogs of Australia, New Holland Publishers.

Clulow, S and Swan, M (2018) A complete guide to frogs of Australia, Australian Geographic Holdings.

iNaturalist, www.inaturalist.org

FrogID, www.frogid.net.au

Sanders, M (2021) Photographic Field Guide to Australian Frogs, CSIRO Publishing.

Murray, K, Skerratt, L, Marantelli, G, Berger, L, Hunter, D, Mahony, M and Hines, H (2011) *Hygiene protocols for the control of diseases in Australian frogs*, Australian Government. www.environment.gov.au/biodiversity/invasive-species/publications/hygiene-protocols-control-diseases-australian-frogs

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Frogs of the Greater Sydney Region

lls.nsw.gov.au/regions/greater-sydney



