

Frogs

of the Hunter Region IDENTIFICATION GUIDE



Acknowledgements

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Photography

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Litoria latopalmata

Introduction

The Hunter Region is a large and geographically diverse area covering the Upper Hunter, Lower Hunter and Mid Coast areas and containing the state's second largest city, Newcastle. The environment is a mixing zone between bioregions of the Sydney Basin in the south, NSW North Coast, and the southern Brigalow Belt in the west. In addition, the region varies from lowlands with coastal plains and swamps up to sub-alpine mountains, dense forests and a large portion of naturally open grassy woodland. With such diverse ecosystems and habitats, it is no wonder the Hunter Region has such a rich diversity of Amphibian fauna, with 48 species of native frog, an amazing 20% of Australia's recognised frog species, occurring within the region.



TOP: *Pseudophryne bibronii*

This booklet aims to assist with the identification of these 48 native 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 within the Hunter Valley are thriving and commonly seen within local backyards, the region is also home to 12 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. This citizen science project also helps you to learn to identify the frogs you find.



TOP-BOTTOM: *Uperoleia mahonyi*,
Crinia signifera, *Lechriodus fletcheri*
and *Mixophyes fasciolatus*

User guide

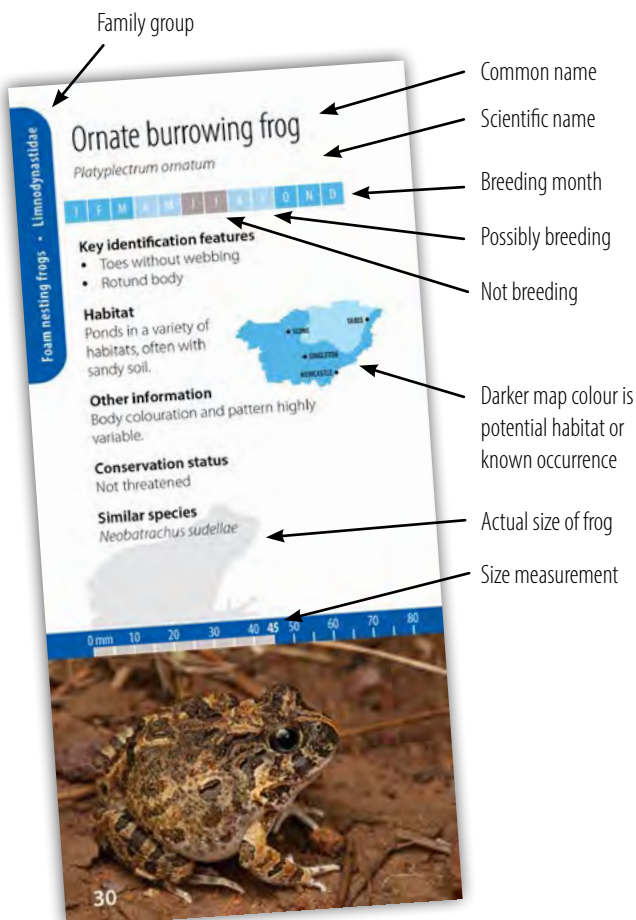
This guide's aim is to assist in the identification of frogs by providing clear and simple features to identify species. However, because many frogs use their calls to tell each other apart, some species can look incredibly similar and pose an identification challenge to even the most experienced frog 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 and iNaturalist to confirm identifications.

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*. While this may appear confusing at first it 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.



TOP: *Limnodynastes tasmaniensis*
BOTTOM: *Litoria verreauxii*

The species profiles begin with the toads – family *Bufo*nidae. 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, and what to do if you find a suspected cane toad, including how to report it.



Features used to identify frogs



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



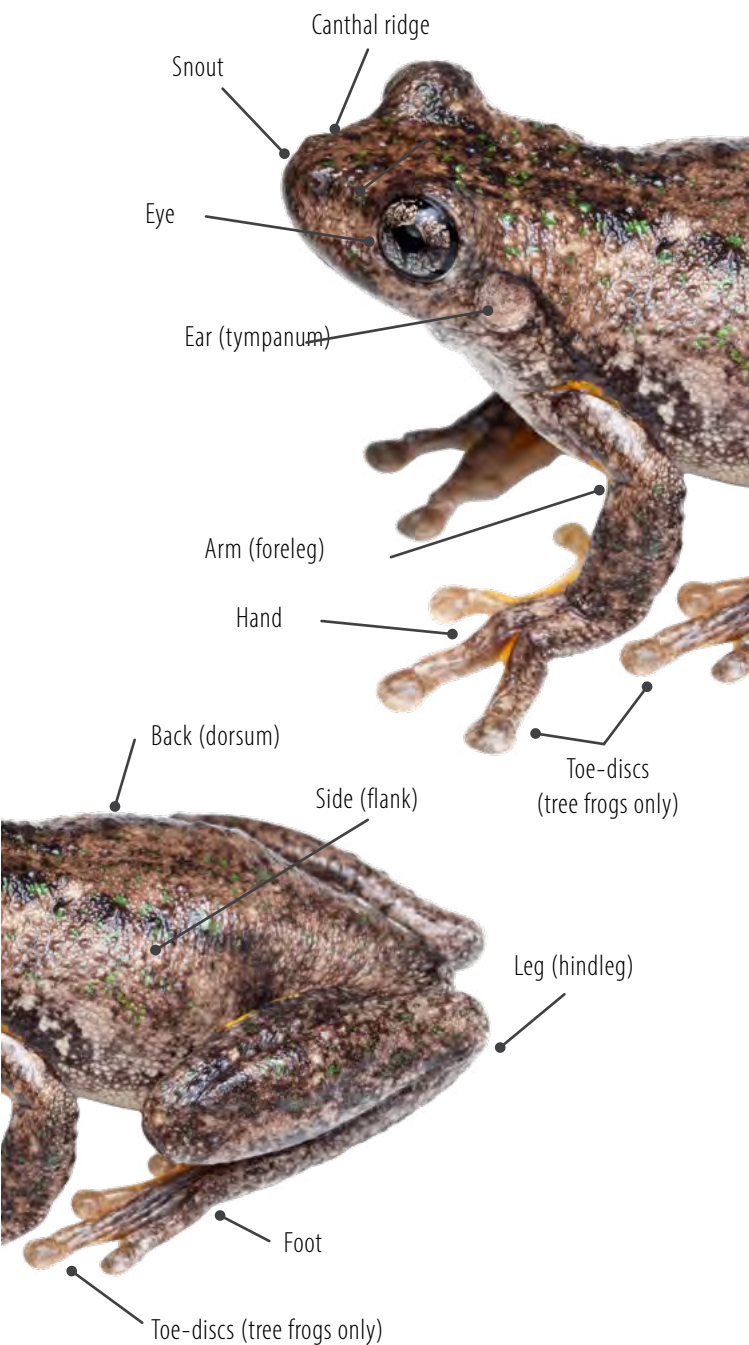
Tree frogs
(Pelodyadidae)
that do not climb
have smaller
toe-discs



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



Typical frog identifying features



Citizen science observation projects

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. To help monitor local native frogs and the cane toad in the Hunter region, download the free FrogID app and record the calls around you as often as possible.

How to get involved with FrogID

1. Visit **www.FrogID.net.au**
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



iNaturalist

Join an online community of citizen scientists to document the biodiversity of your backyard, and beyond iNaturalist is a global online community allowing citizen scientists to help observe and identify all types of life on earth including plants and animals. iNaturalist members can upload images or sound recordings via the iNaturalist website or phone app and participate in an online community learning from others how to identify the observations they are making.

How to get involved with iNaturalist

1. Visit **www.inaturalist.org** or find iNaturalist in the app store.
2. Register a free account.
3. Upload photos you have taken or sound recordings you have made.
4. Participate and learn in a large online community.

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...



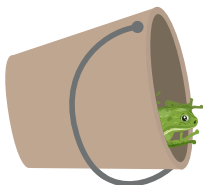
Wear unpowdered disposable gloves.

OR...



Wash hands with water before picking up a frog.

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.

0 mm 10 20 30 40 50 60 70 80



Cane toad

Rhinella marina

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

Toads • Bufonidae

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

90 100 110 120 130 140 150 160 170



A close look at the identifying features of cane toads

Hard ridges from eyes joining at snout.

'Goat-like' eye with horizontal pupil.

Large paratoid glands behind an obvious tympanum (ear).

No toe-pads, no webbing between fingers.

NSW CANE TOAD
BIOSECURITY ZONE MAP



Relatively dry, bumpy skin.
Cream, yellow, reddish brown
to nearly black in colour.

'Dirty' cream
belly often
with faint dark
marbling.

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 Hunter Region but occasionally hitch a ride to the area, it is important to keep an eye out and report any sightings immediately. Many native frog species can look very similar to cane toads so learning some features to tell them apart will help enable you to report any cane toads to authorities!



Cane toad (*Rhinella marina*)

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

Juvenile

- May lack gland on neck.
- Horizontal pupil.
- Gold iris.
- Often covered red-orange 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.



Sudell's frog
(*Neobatrachus sudellae*)

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



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 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. 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

Do you think you have 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-unusual-animal-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 ten foam nesting frog species occur in the Hunter Region.

Spawn of a Fletcher's frog



Tusked frog

Adelotus brevis



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.

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*, *Philoria sphagnicola*

0 mm 10 20 30 40 50 55 60 70 80



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 on the southern edge of Hunter Valley region.



Other information

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

Conservation status

Vulnerable

Similar species

Limnodynastes dumerilii

0 mm 10 20 30 40 50 60 70 80



Fletcher's frog

Lechriodus fletcheri



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.

Other information

Usually flattens itself to camouflage as a leaf when approached.



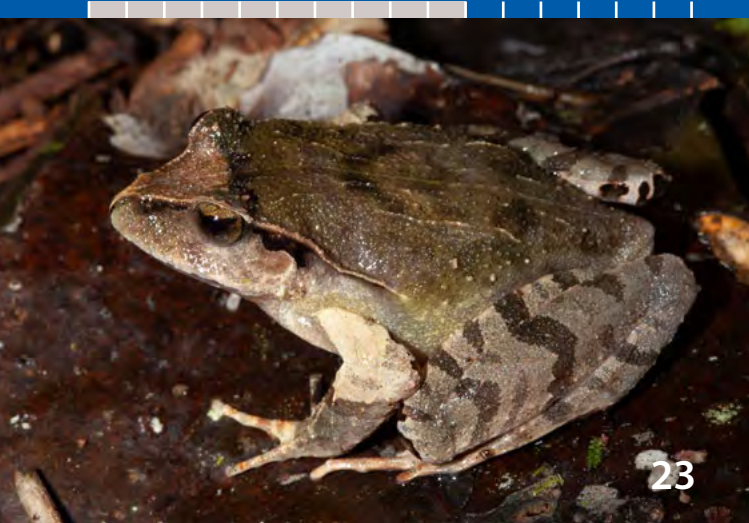
Conservation status

Not threatened

Similar species

Mixophyes fasciolatus, *Litoria wilcoxii*

0 mm 10 20 30 40 50 60 70 80



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.



Other information

A coastal colour form and more inland colour form occur in the Hunter Region.

Conservation status

Not threatened

Similar species

Heleioporus australiacus, *Limnodynastes terraereginae*, *Neobatrachus sudellae*

0 mm 10 20 30 40 50 60 70 80



Striped marsh frog

Limnodynastes peronii



Key identification features

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

Habitat

Habitat generalist, preferring ponds over creeks.

Other information

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



Conservation status

Not threatened

Similar species

Limnodynastes tasmaniensis, *Litoria nasuta*

0 mm 10 20 30 40 50 55 60 70 80



Spotted marsh frog

Limnodynastes tasmaniensis

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

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.



Other information

Common in disturbed habitat including farmland.

Conservation status

Not threatened

Similar species

Limnodynastes peronii



0 mm 10 20 30 35 40 50 60 70 80



Northern banjo frog

Limnodynastes terraereginae

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

Key identification features

- Large gland on back legs
- Red colour on inner thighs

Habitat

Ponds, flooded areas, and slow-moving creeks in a variety of habitats.

Other information

Only in far west of Hunter Valley region.

Conservation status

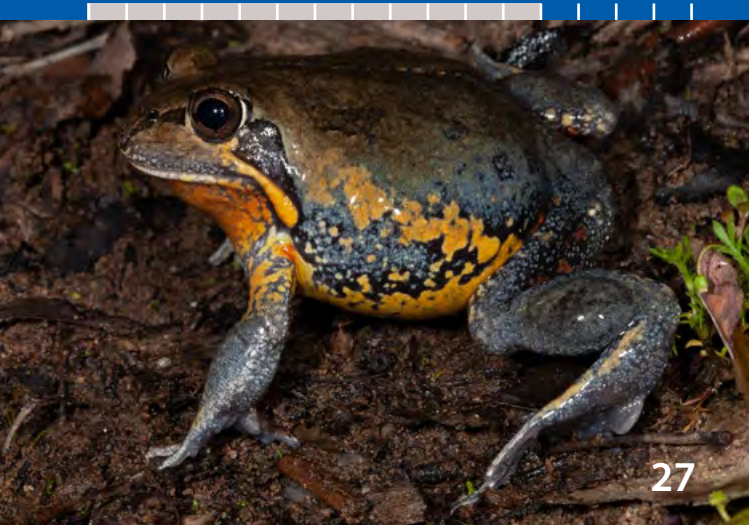
Not threatened

Similar species

Limnodynastes dumerilii



0 mm 10 20 30 40 50 60 70 80



Sudell's frog

Neobatrachus sudellae



Key identification features

- Toes strongly webbed
- Rotund body
- Highly variable back pattern

Habitat

Open habitats – breeds in temporary ponds after rainfall.



Other information

Not commonly recorded in the Hunter Valley region.

Conservation status

Not threatened

Similar species

Platyplectrum ornatum

0 mm 10 20 30 40 50 60 70 80

Sphagnum frog

Philoria sphagnicola



Key identification features

- Dark stripe from eye to upper arm
- Dark splotch pattern on side and above groin

Habitat

Bogs in steep mountainous areas.

Other information

More widespread further north but occurs within the Elands area of the Hunter Region.



Conservation status

Vulnerable

Similar species

Adelotus brevis, *Crinia* species, *Paracrinia haswelli*

0 mm 10 20 30 40 50 60 70 80



Ornate burrowing frog

Platyplectrum ornatum



Key identification features

- Toes without webbing
- Rotund body

Habitat

Ponds in a variety of habitats, often with sandy soil.



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 fourteen ground frog species occur in the Hunter Region.

Crinia signifera



Eastern sign-bearing froglet

Crinia parinsignifera

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

Key identification features

- Lacks glands
- Small size and elongate body
- Brown to grey
- Best identified from other *Crinia* by their call



Habitat

Ponds and flooded areas in a variety of habitats.

Other information

Common in the western Hunter Region including open farmland areas.

Conservation status

Not threatened

Similar species

Other *Crinia* and *Pseudophryne* species



0 mm 10 15 20 30 40 50 60 70 80



Common eastern froglet

Crinia signifera

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

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.

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

0 mm 10 20 30 40 50 60 70 80



Wallum froglet

Crinia tinnula



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, but locally abundant on the Tomago sandbed.

Conservation status

Vulnerable

Similar species

Other *Crinia* and *Pseudophryne* species



Southern barred 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.



Conservation status

Endangered

Similar species

Lechriodus fletcheri, other *Mixophyes* species

0 mm 10 20 30 40 50 60 70 75 80



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* but still requires forest with leaf-litter to hide in.

Conservation status

Not threatened

Similar species

Lechriodus fletcheri, other *Mixophyes* species

0 mm 10 20 30 40 45 50 60 70 80



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.

Conservation status

Endangered

Similar species

Other *Mixophyes* species



0 mm 10 20 30 40 50 60 70 80 90



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



0 mm 10 20 30 40 50 60 70 80



Red-crowned frog

Pseudophryne australis



Key identification features

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

Habitat

Temporary puddles or creeks in forests located on sandstone in the region's south.

Other information

Has declined due to habitat disturbance, requiring unpolluted water.



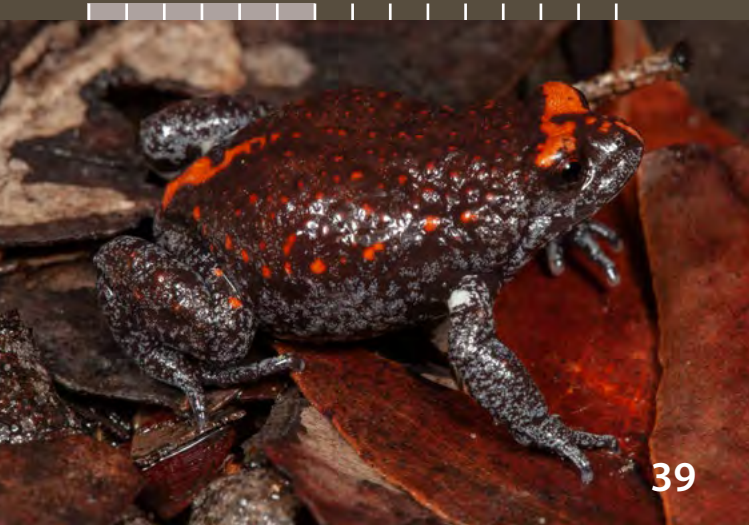
Conservation status

Vulnerable

Similar species

Pseudophryne bibronii

0 mm 10 20 30 40 50 60 70



Bibron's frog

Pseudophryne bibronii

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

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 locally common in the Hunter Region.

Conservation status

Not threatened

Similar species

Pseudophryne australis, *Uperoleia* and *Crinia* species

0 mm 10 20 30 40 45 50 60 70 80



Red-backed frog

Pseudophryne coriacea



Key identification features

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

Habitat

Temporary ponds, puddles and creeks in the east of the region.

Other information

Sometimes has a white stripe along its side.



Conservation status

Not threatened

Similar species

Pseudophryne bibronii, *Pseudophryne australis*

0 mm 10 20 30 35 40 50 60 70 80



Dusky glandular frog

Uperoleia fusca



Key identification features

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

Habitat

Generalist including disturbed habitat in eastern half of Hunter 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

0 mm 10 20 25 30 40 50 60 70 80

Smooth-bellied glandular frog

Uperoleia laevigata



Key identification features

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

Habitat

Generalist including disturbed habitat in south and west of the Hunter Region.

Other information

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

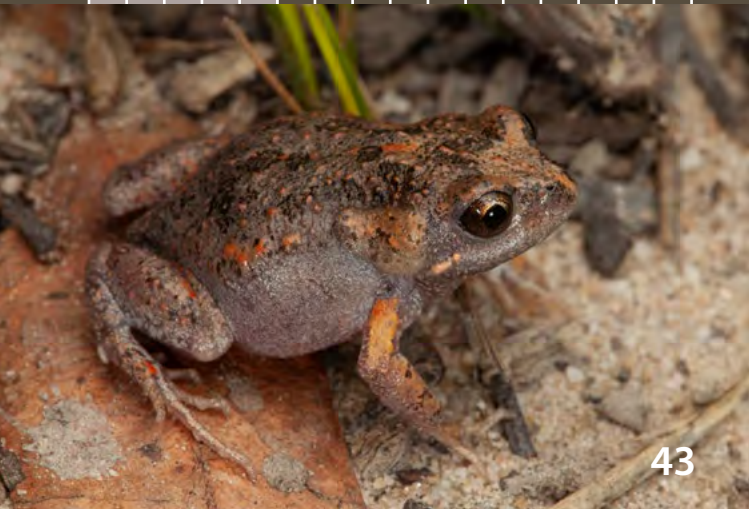


Conservation status

Not threatened

Similar species

Other *Uperoleia* and *Pseudophryne* species



Mahony's glandular frog

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 around Tomago and Norah Head.



Other information

This Endangered species is only found in the Hunter and Central Coast regions.

Conservation status

Endangered

Similar species

Other *Uperoleia* and *Pseudophryne* species

0 mm 10 20 30 40 45 50 60 70 80



Wrinkled glandular frog

Uperoleia rugosa



Key identification features

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

Habitat

Flooded grasslands in the central Hunter Valley.

Other information

Best identified from other *Uperoleia* by its distinct clicking call.



Conservation status

Not threatened

Similar species

Other *Uperoleia* and *Pseudophryne* species

0 mm 10 20 25 30 40 50 60 70 80



Tree frogs

Family: Pelodyadidae

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 24 tree frog species occur in the Hunter Region.

Litoria peronii



Green and golden bell frog

Litoria aurea

Tree frogs • Pelodyadidae



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 a local population on Kooragang Island is stable.



Conservation status

Endangered

Similar species

Litoria fallax

0 mm 10 20 30 40 50 60 70 75 80



Barrington tree frog

Litoria barringtonensis



Key identification features

- Green with small black dots
- Pale and dark stripe backwards from eye above ear

Habitat

Streams and creeks in the north-east of the region.



Other information

Can occur together with the similar *Litoria phyllochroa* but has a different call.

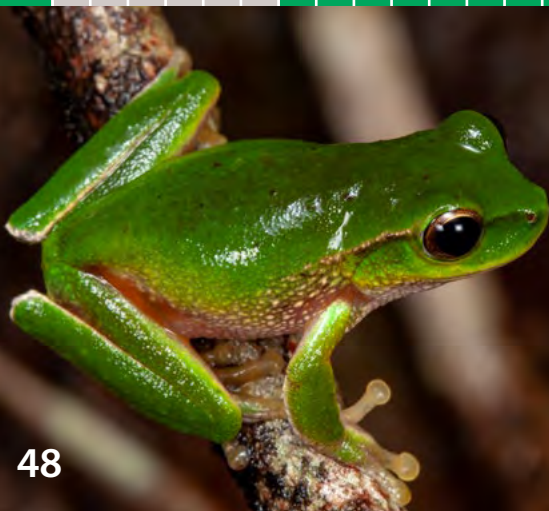
Conservation status

Not threatened

Similar species

Litoria phyllochroa

0 mm 10 20 30 40 50 60 70 80



Booroolong frog

Litoria booroolongensis



Key identification features

- Mottled brown colouration
- Relatively smooth skin

Habitat

Flowing creeks north of Scone.
Historically occurred in the Barrington and Goulburn River areas but has declined.

Other information

This Endangered species lives on rocky creeks, many of which flow through farmland. Protecting creeks helps this species.



Conservation status

Endangered

Similar species

Litoria wilcoxii



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 east of the region.



Other information

Calls for just a couple nights after intense rain.

Conservation status

Vulnerable

Similar species

Litoria wilcoxii, *Litoria jervisiensis*



0 mm 10 20 30 40 45 50 60 70 80



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.

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, *Litoria gracilentia*

0 mm 10 20 30 40 50 60 70 80 90



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 east of the region.



Other information

Generally, breeds after heavy rainfall.

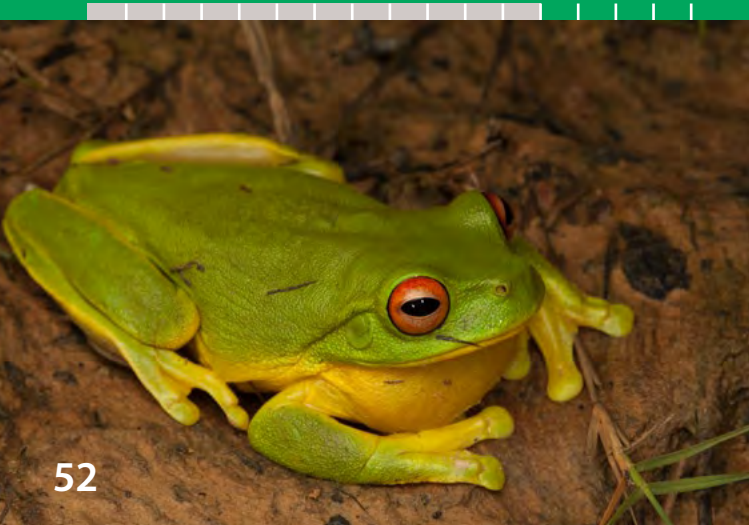
Conservation status

Not threatened

Similar species

Litoria caerulea, *Litoria gracilentia*

0 mm 10 20 30 40 50 60 70 80



Blue Mountains tree frog

Litoria citropa

J	F	M	A	M	J	J	A	S	O	N	D
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Key identification features

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

Habitat

Streams on sandstone in the south of the region.

Other information

Usually calls from near fast-flowing water.



Conservation status

Not threatened

Similar species

Litoria daviesae

0 mm 10 20 30 40 50 55 60 70 80



Davies' tree frog

Litoria daviesae



Key identification features

- Pale yellow-cream colour through groin, thigh, and armpit
- Body is mottled brown and green in colour

Habitat

High altitude creeks and swamps in the Barrington and northern Hunter Region.



Other information

Much of this species' habitat burned in the Black Summer fires, except for Barrington Tops.

Conservation status

Vulnerable

Similar species

Litoria citropa

0 mm 10 20 30 40 50 55 60 70 80



Bleating tree frog

Litoria dentata



Key identification features

- Brown hourglass pattern on back
- No bright colours in groin or inner thighs
- Brownish-yellow vocal sac when calling

Habitat

Generalist, breeding in puddles and ponds after heavy rain.

Other information

A common species in suburban and farmland areas with some bushland.



Conservation status

Not threatened

Similar species

Litoria quiritatus, *Litoria verreauxii*,
Litoria jervisiensis, *Litoria littlejohni*,
Litoria rubella

0 mm 10 20 30 40 50 60 70 80



Eastern sedge 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.

Other information

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

Conservation status

Not threatened

Similar species

Litoria phyllochroa



Wallum rocket frog

Litoria freycineti



Key identification features

- Pale tear-drop shaped mark in front of eye
- 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.



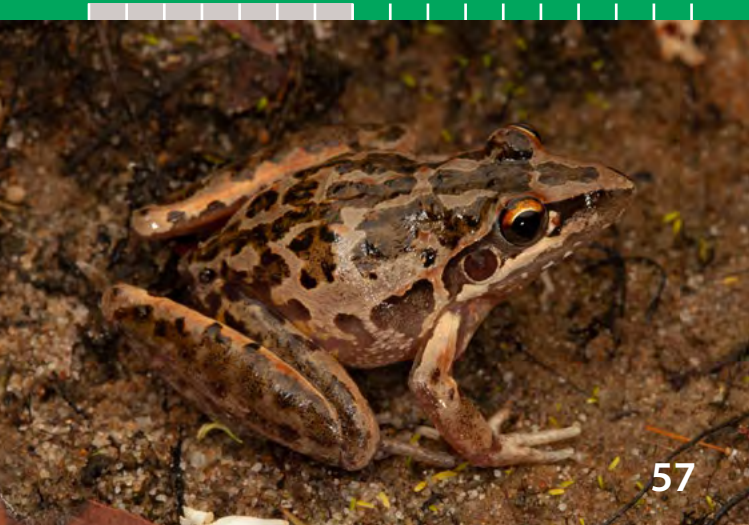
Conservation status

Not threatened

Similar species

Litoria jervisiensis, *Litoria nasuta*

0 mm 10 20 30 35 40 50 60 70 80



Graceful tree frog

Litoria gracilentia



Key identification features

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

Habitat

Open coastal habitats north of Bulahdelah, breeding in temporary puddles and flooded areas after rain.



Other information

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

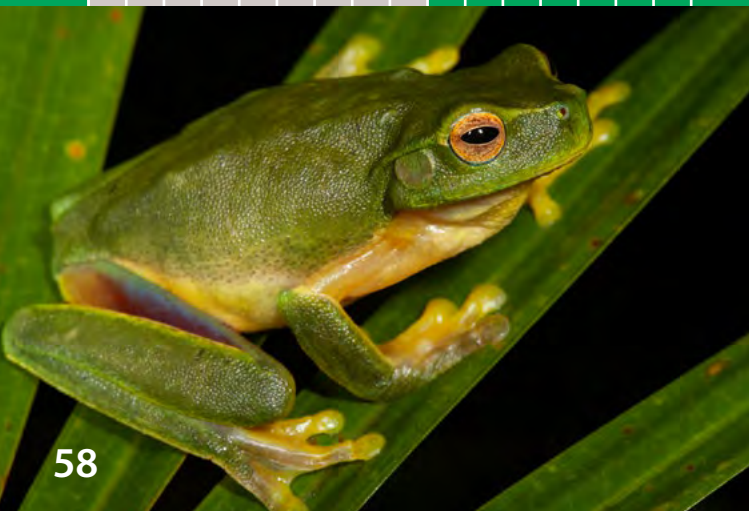
Conservation status

Not threatened

Similar species

Litoria chloris

0 mm 10 20 30 40 45 50 60 70 80



Jervis Bay tree frog

Litoria jervisiensis



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.



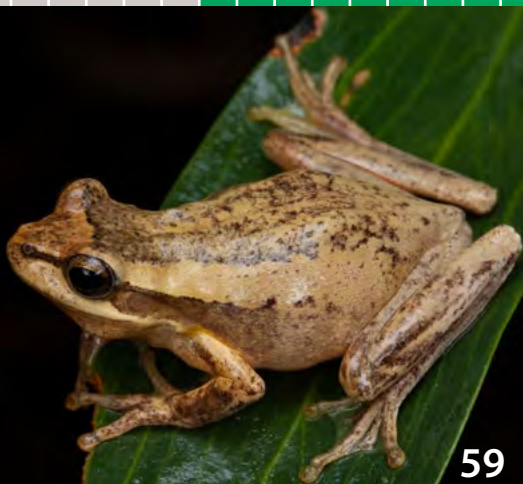
Conservation status

Not threatened

Similar species

Litoria verreauxii, *Litoria littlejohni*, *Litoria dentata*

0 mm 10 20 30 40 50 60 70 80



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.

Other information

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

Conservation status

Not threatened

Similar species

Litoria freycineti, *Litoria nasuta*

0 mm 10 20 30 35 40 50 60 70 80



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
- Large size compared to similar species

Habitat

Ponds and slow-flowing sandstone creeks in the south of the region.

Other information

This vulnerable species can be assisted by protecting and minimising disturbance to ponds and streams in the Watagan Mountains.



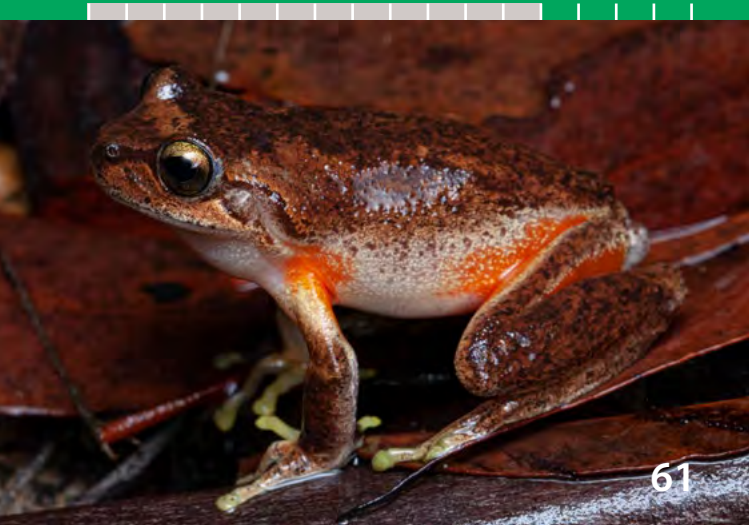
Conservation status

Vulnerable

Similar species

Litoria jervisiensis, *Litoria verreauxii*

0 mm 10 20 30 40 50 60 70 80



Striped rocket frog

Litoria nasuta

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

Key identification features

- Pale tear-drop shaped mark in front of eye
- Strongly pointed snout
- Striped back pattern

Habitat

Coastal swamps and ponds.



Other information

More common further north, this species is rarely seen in the Hunter region.

Conservation status

Not threatened

Similar species

Litoria freycineti, *Litoria latopalmata*

0 mm 10 20 30 40 50 60 70 80



Peron's tree frog

Litoria peronii



Key identification features

- Grey colour with green flecks
- Bright yellow and black markings on inner thighs

Habitat

Diverse habitats; commonly in backyards and houses, including in urban areas; calls around ponds.

Other information

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



Conservation status

Not threatened

Similar species

Litoria tyleri

0 mm 10 20 30 40 50 60 70 80



Green stream frog

Litoria phyllochroa



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 in the region's east.



Other information

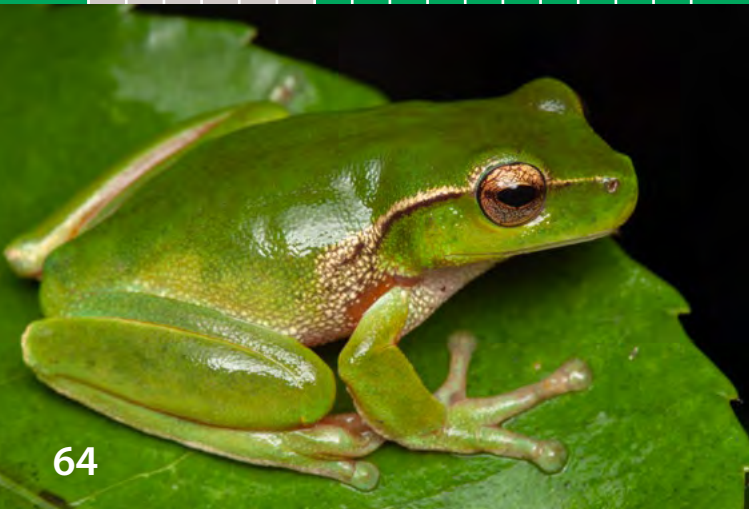
Can occur with the very similar *Litoria barringtonensis* but has a different call.

Conservation status

Not threatened

Similar species

Litoria barringtonensis



Screaming frog

Litoria quiritatus



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 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*, *Litoria rubella*



Whirring tree frog

Litoria revelata



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, *Litoria verreauxii*



0 mm 10 20 30 40 50 60 70 80



Red tree frog

Litoria rubella



Key identification features

- Chubby body shape
- Indistinct pattern on back

Habitat

Open woodland and grassland, breeds in flooded areas and ponds.

Other information

Common in the semi-arid and arid zones, but only just reaches the western Hunter region.



Conservation status

Not threatened

Similar species

Litoria dentata



Tyler's tree frog

Litoria tyleri

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

Key identification features

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

Habitat

Ponds and swamps within forested areas in the east of the region.



Other information

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

Conservation status

Not threatened

Similar species

Litoria peronii

0 mm 10 20 30 40 50 60 70 80



Whistling tree frog

Litoria verreauxii

J	F	M	A	M	J	J	A	S	O	N	D
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Key identification features

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

Habitat

Diverse habitats and water bodies in the eastern half of the 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*,
Litoria revelata

0 mm 10 20 30 35 40 50 60 70 80



Eastern Stony Creek frog

Litoria wilcoxii

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

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.

Other information

Males turn bright, golden yellow when calling.

Conservation status

Not threatened

Similar species

Litoria brevipalmata, *Litoria jervisiensis*

0 mm 10 20 30 40 50 60 70 80



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](http://www.environment.gov.au/biodiversity/invasive-species/publications/hygiene-protocols-control-diseases-australian-frogs)**

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Field sketches



Local Land
Services



Frogs of the Hunter Region
lls.nsw.gov.au/regions/hunter