



mallee frogs

field guide



Mallee CMA Region



Acknowledgements

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Photography

Photographs are acknowledged within the guide.

Front Cover Photos

Peter Robertson and
Wildlife Profiles Pty Ltd.

Litoria ewingii
(Southern Brown Tree Frog)
Neobatrachus sudelli
(Common Spadefoot Toad)
Litoria raniformis
(Growling Grass Frog)

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About the Mallee Catchment Management Authority

The Mallee Catchment Management Authority (CMA) region encompasses the Victorian River Murray floodplain from the South Australian border to Nyah, and the arid Mallee country south to the Wimmera (see map, inside cover).

Why a field guide for frogs?

This field guide includes frogs that are known to occur in the Mallee region or on the edges of the region and contains information to help you identify a frog, tadpole or frog eggs. It is intended to be simple and straightforward to use and light enough to carry in your pocket.

This field guide is one of a series developed by the Mallee CMA to assist monitoring activities within the Mallee region.

Who is this guide for?

This guide is to assist natural resource managers in monitoring frog populations at sites that have received environmental water. It is also for anyone interested in learning more about frogs in the Mallee.

Technical Information on Frogs

Frogs are amphibians (Class Amphibia - Order Salientia), which means they are dependent on water to complete their life cycle.

Frogs and Toads

There are no 'true toads' native to Australia. Many frogs are called toads because of their warty appearance and slow movement on land. In the Mallee there are three frogs like this: the Spadefoot Toad (*Neobatrachus pictus*), the Common Spadefoot Toad (*Neobatrachus sudelli*), and Bibron's Toadlet (*Pseudophryne bibronii*). These are all frogs.

Frogs in the Mallee

Two frog families occur in the Mallee region - **Hylidae (tree frogs)**, and **Myobatrachidae (southern frogs)**. The major difference between these families is that **tree frogs** have distinct discs or pads on the tips of fingers and toes, while the tips of fingers and toes of the **southern frogs** are more or less straight.

Only three species of **tree frog** are found in the Mallee region, compared with eight species of **southern frog**.

Cont'd...



Southern Frogs (Myobatrachidae)

Members of this family are only found in Australia. Most are burrowing or terrestrial. They are extremely diverse in their ecology, life cycles and morphology (physical characteristics).

Tree Frogs (Hylidae)

Many of these frogs have large finger and toe pads, which makes them excellent climbers. Australian tree frogs are more abundant in wetter northern and eastern parts. The eggs are thought to be laid in water and free-living aquatic tadpoles hatch quickly.

How To Use This Guide

Frogs are grouped in alphabetical order of scientific name, with **tree frogs** together and **southern frogs** together. Most frogs have several different common names, so although common names are given, it is best to use the scientific name to make sure you have the right frog!

Each frog is described with words, symbols and a photo. Some of them also have photos of tadpoles and eggs. The symbols are used to describe the frog's feet, eggs, and pupils.

Wherever possible it is better to try and identify frogs by their call to minimise harm to the frog.

Explanation of Symbols

This guide uses symbols to help identify a frog - one for the shape of the pupil; one to describe the fingers and toes; and one to describe eggs. Symbols appear at the top of the page.

Pupil

Pupils are either vertical or horizontal, and one frog (*Litoria peronii*) has a cross-shaped pupil.



Horizontal



Vertical



Cross-shaped

Fingers and Toes

There are two families of Mallee Frogs. To decide which family they belong to, look if the toes have pads or not:

Pads present on digits (fingers and toes) - Tree frogs, Family Hylidae

Webbing on the feet is highly variable, from no webbing at all to full webbing. **Tree frogs** all have some webbing.



Toe pads present, wider than digits.



Toe pads present, not wider than digits.

No pads present on digits - Southern frogs, Family Myobatrachidae

Southern frogs range from no webbing to full webbing. Some **southern frogs** have fringing on their fingers and toes.



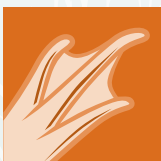
Toe pads absent, no webbing.



Toe pads absent, no webbing, fringes present.



Toe pads absent, minimal to half webbing.



Toe pads absent, almost or fully webbed.

Eggs

Eggs of frogs found in the Mallee region are all pigmented (contain colour). There are three main components to help identify eggs: texture, form and habitat.

Texture

Eggs are either surrounded in jelly or in a frothy, foamy mass.

Form

Eggs can be in long chains (often appearing as clumps), individual, in loose small groups, or in clumps.

Habitat

Eggs can be *aquatic* or *terrestrial*.

Terrestrial eggs are always laid near water, or in hollows that are expected to flood, and usually in moist soil or leaf litter.

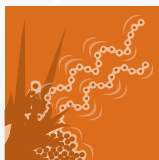
Aquatic eggs can be floating, scattered on the substrate, or attached to submerged vegetation in the water.



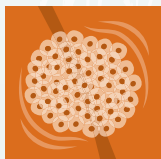
Terrestrial, loose clumps.



Floating, foamy mass.



Floating jelly chains, around vegetation.



Floating raft of eggs in jelly.



Aquatic clumps in jelly, around submerged vegetation.



Aquatic single eggs or loose groups in jelly, on substrate.



Aquatic, single eggs or loose groups in jelly, attached to submerged vegetation or on substrate.

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Southern Brown Tree Frog

Litoria ewingii



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Adult Length

Usually around 45mm but up to between 25 and 60mm.

Description

Occasionally green or partially green individuals of this species are found in western Victoria.

Belly: Texture

Smooth or with low, small tubercles.

Belly: Pattern and Colour

Single colour, white, cream or yellow and coarsely granular.

Back: Texture

Smooth or smooth with low tubercles (lumps).

Back and Sides: Pattern and Colour

Pale cream brown above, with a broad brown band that runs down the back - starting between the eyes and darker flecks scattered across. A broad black stripe runs from the snout, through the eye and tympanum (ear), fading down the sides of the body. Below this there is a pale stripe that runs from below the eye to the base of the arm. The sides are pale fawn, cream, orange, or light brown.

Groin and Limbs: Pattern and Colour

The groin and the backs of the thighs are yellow to red-orange.

Throat and Eyes: Pattern and Colour

The throat is finely granular. Breeding males have a light brown vocal sac.



Other Common Names

Brown Tree Frog, Ewing's Tree Frog , Whistling Tree Frog

Calling

Males call throughout the year after rain, but breeding peaks in early spring and autumn. One of the few frogs to call throughout winter. Males usually call from the ground or in low vegetation, at the water's edge or in water, floating amongst the vegetation. The call is a series of rapid high-pitched harsh, whirring pulsing notes repeated 5-15 times - "creeeeeeee creee creee cree cree cree", or "weep..eep..eep..eep". The first note is usually the longest.

Tadpoles

Medium-sized, range in colour from pale golden-yellow to dark grey or almost black, and the fins are usually clear. Fast swimmers, dart away when disturbed. Found in still water in ponds, dams, lakes, streamside ponds and flooded roadside ditches. (See pages 12 & 13)

Eggs

Usually around 20-30, but up to 500-700 small pigmented eggs in jelly are laid in clusters, usually attached to submerged twigs, stems and vegetation. Found in still water in ponds, dams, lakes, streamside ponds and flooded roadside ditches.

Habitat & Distribution

Found in all habitat types, even common in gardens in suburban areas. They frequent wet and flooded areas for breeding but can often be found calling long distances from water.

Interesting Facts & Distinguishing Features

A widespread and common species found in great numbers in flooded grassland or marshes. An agile climber and jumper. A voracious insectivore capable of leaping to catch a fly in mid-flight.

Colour Variation Example



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs		•	•	•	•	•	•	•	•	•	•	•
Tadpoles	•	•	•	•	•	•	•	•	•	•	•	•
Breeding Season	•	•	•	•	•	•	•	•	•	•	•	•

Peron's Tree Frog

Litoria peronii



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Adult Length

Usually around 50mm but up to between 30mm and 70mm.

Belly: Texture

Smooth or granular.

Belly: Pattern and Colour

Plain cream-yellow and granular.

Back: Texture

Rough with low warts and tubercles (lumps).

Back: Pattern and Colour

Varies from cream to dark brown or grey, with irregular dark flecks and always small emerald green spots. Can change colour depending on the time of day, the temperament of the individual and the temperature.

Groin and Limbs: Pattern and Colour

Always small emerald green spots on the limbs; bright yellow with black or dark-brown mottling on the armpits, groin, feet and backs of thighs; an indefinite light-coloured serrated ridge along the hind edge of the forearm.

Throat and Eyes: Pattern and Colour

Dark brown flecking on the throat. Iris silvery grey.



Other Common Names

Emerald-spotted Tree Frog, Laughing Tree Frog, Maniacal Cackle Frog

Calling

Males call from near water in vegetation or tree branches, or on the ground beside dams, ponds and pools during spring and summer. The call is very long and drawn out, slowly pulsed and increasing in loudness - "cra-ah-ah-ah-ah-ah-ah-ahhk"; described variously as a slow "cackle", a loud, drawn-out machine-gun call, and a penetrating, long rattling sound.

Tadpoles

Fairly large, pale golden-yellow to iridescent green, with three dark longitudinal stripes down the back - one on the spine and one on each side. They have a shiny pale green spot on the tip of the snout. As they develop they become a more uniform olive-brown or yellow-brown. Found in still water in swamps, dams, streamside ponds, and lagoons.

Eggs

The pigmented eggs are found individually and in small clusters in jelly, scattered over the substrate or amongst leaf litter and vegetation, in still water at the edges of ponds, swamps, dams, and lagoons.

Habitat & Distribution

Frequents wet and dry forest, woodlands, shrublands, grasslands, and open areas. Usually found near rivers, creeks, lagoons and flooded areas, but sometimes in trees far away from water where they spawn during breeding season. Locally common along creek-lines and in wetlands where there are large, old trees and fallen logs and branches. Often found sheltering under bark on trees.

Recorded at Macredie Island in 2006. Recorded across the Mallee CMA region in 2006-2007. Recorded at Lindsay and Wallpolla Islands in 2005-2006.

Interesting Facts & Distinguishing Features

Peron's Tree Frog is distinguished from all other Victorian frogs by its cross-shaped pupil.

Sometimes known as the Maniacal Cackle Frog due to its distinctive call, no other frog sounds like this. A large and agile climber, widespread throughout the Murray-Darling basin, but only locally common.

Large old River Red Gums can support several hundred frogs, which hide beneath the bark and in crevices, usually within three metres of the ground.

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs										•		•
Tadpoles	•	•	•	•					•	•	•	•
Breeding Season									•	•	•	•

Growling Grass Frog

Litoria raniformis



Photo Mallee Catchment Management Authority

Adult Length

55-100mm.

Belly: Texture

Smooth.

Belly: Pattern and Colour

Plain white and coarsely granular.

Back: Texture

Covered in small to large warts, tubercles (lumps) and skin folds.

Back and Sides: Pattern and Colour

Single or multi-coloured; ranging from bright emerald green to brown or dull olive green; with or without large brown, golden, black or bronze spots on a warty back. The tympanum (ear) is distinct, as is the dorso-lateral fold. A pale stripe runs down the spine. A dark streak runs from the snout, over the eye and tympanum. Above this a cream skin fold runs down to the groin. Another pale stripe runs from below the eye to the base of the arm.

Groin and Limbs: Pattern and Colour

The groin and the backs of the thighs are bright blue, occasionally with yellow flecks.



Other Common Names

Green and Golden Frog, Southern Bell Frog , Warty Swamp Frog

Calling

Males call after rain in spring, summer and autumn, usually while floating amongst vegetation or in open water. Distinctive growl of about one second duration - "crawark-crawark-crok-crok"; or short grunts "crok-crok" followed by a slow "craw-craw-crawk". Call likened to a motorbike or growling laugh.

Tadpoles

Large and initially dark in colour. As they develop they become yellow or pinkish-grey with yellowish fins and an iridescent green pigment over the brain and spine. They will dart into deeper water when disturbed. Found in permanent lakes, swamps, dams, and lagoons with still water. (See pages 12 & 13)

Eggs

Large and pigmented. Laid in clusters within a floating jelly raft in still shallow water in permanent lakes, swamps, dams, and lagoons. Often attached to vegetation. May later break up and sink.

Habitat & Distribution

Widespread but only locally common. Adults usually found close to or in wetlands with healthy water plant communities such as ponds, swamps, lagoons and dams. Can also be found in highly modified or constructed wetlands that contain emergent waterplants. More likely to occur in areas that undergo regular flooding and contain a diversity of refuges such as logs, leaf litter, and crayfish burrows.

Surveys in 2006-2007 recorded the Growling Grass Frog (*L. raniformis*) at only a few sites within the Mallee CMA region, on Mulcra Island. Recorded at Kings Billabong in 2008 (Sascha Healy, pers. comm.). Most records in the Upper Murray and broader region are pre-1970.

Conservation Status

Listed as Threatened under the Flora and Fauna Guarantee Act 1988. Listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act* 1999. Population size known to be decreasing. Surveys in 2006-2007 in the Mallee CMA region suggest the distribution of *L. raniformis* has contracted significantly over the past 20 years. This frog requires flooding events to promote recruitment.

Interesting Facts

Capable of responding positively to habitat restoration, utilizing highly modified or constructed wetlands, providing there is floating and/or emergent water plants. Preys on other frogs and is active by day.

Life Cycle

Breeding mainly occurs in spring and summer.

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs												
Tadpoles	•	•	•	•	•	•	•	•	•	•	•	•
Breeding Season	•	•	•	•				•	•	•	•	•



Below

1. *Limnodynastes tasmaniensis* egg mass.
See pages 22 and 23 for further details.

2. *Neobatrachus* eggs. Location - Murray-Sunset.
See pages 26 and 27 for further details.





Above

Litoria ewingii tadpole.

See pages 6 and 7 for further information.

Below

Litoria raniformis tadpole.

See pages 10 and 11 for further information.



Below

Litoria ewingii tadpole.

See pages 6 and 7 for further information.



Eastern Sign-bearing Froglet

Crinia parinsignifera



Photo Mallee Catchment Management Authority **Location** Lindsay Island

Adult Length

Usually between 18mm and 24mm but up to less than 30mm.

Description

Small ground dwelling frog.

Belly: Texture

Rough.

Belly: Pattern and Colour

Plain light grey or muddy white; or peppered with darker flecks; or black, grey, and white; granular.

Back: Texture

Smooth or rough or warty or ridged (raised folds).

Back and Sides: Pattern and Colour

Colour and pattern of this frog varies from light-coloured through to black with dark sides, patches or stripes. Three patterns on the back are recognised:

- 1 Ridged (ridges down the back).
- 2 Boomerang-shaped ridges over the shoulder and on the back.
- 3 Smooth, or with small warts.



Other Common Names

Beeping Froglet, Plains Froglet

Calling

Quite conspicuous by its habit of calling year-round, often during the day, although in the Mallee region they call mostly in spring. Males call from among vegetation at the water's edge or from emergent vegetation. The call is a long, low harsh squelching note - "eeeeiiiiiiik" - repeated every few seconds.

Tadpoles

Small; light to dark grey or brown all over with scattered dark flecks. The dark pigmentation has patches of gold over the top, and as the tadpoles grow the gold areas increase in size. Aquatic, found in ponds, dams, swamps, flooded grassland, and ditches.

Eggs

Eggs are very small, pigmented, and laid singly or in loose clumps, scattered around the bottom of ponds, dams, swamps, flooded grassland, and ditches in shallow water. Often found on the substrate or attached to aquatic plants (aquatic).

Habitat & Distribution

Most common in woodlands, floodplains, and open and disturbed areas, around the edges of dams and swamps. Shelter under logs and other debris, usually in moist depressions or near water. It is not uncommon to find dozens of individuals under one log or rock.

Recorded in the Birchip area in 2003-2004. Recorded at Horseshoe Lagoon and Wallpolla Creek, Wallpolla Island, in 2004. Recorded in Burra Forest in 2006. Recorded across the Mallee CMA region in 2006-2007.

Interesting Facts and Distinguishing Features

Froglets (members of the genus *Crinia*) are recognisable by their granular bellies with mottling or peppering of dark pigment on light pigment. This species can be distinguished from frogs in the same genus through its belly colouration and call. Froglets (genus *Crinia*) can be distinguished from Bibron's Toadlet (*Pseudophryne bibronii*) by their less vivid belly markings.

Females are larger than males.

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs								•	•			
Tadpoles			•	•	•	•	•	•	•	•	•	
Breeding Season		•	•	•	•			•	•	•	•	•

Eastern Common Froglet

Crinia signifera



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Adult Length

Up to less than 30mm.

Description

A small ground dwelling frog, one of Eastern Australia's most common and widespread species. The colouration is extremely variable.

Belly: Texture

Rough.

Belly: Pattern and Colour

White or muddy white, heavily mottled with black or dark brown; or marbled with only black, grey and white; granular.

Back: Texture

Varies from smooth to rough, warty or ridged (raised folds).

Back: Pattern and Colour

Highly variable colour and pattern, from light-coloured through to black with dark sides, patches, or stripes.

Three main patterns on the back are recognised:

- 1 Ridged (ridges along back).
- 2 Boomerang-shaped ridges over the shoulder and on the back.
- 3 Smooth or with small warts.

Limbs: Pattern and Colour

There is a small white spot at the base of each arm.

Throat and Eyes: Pattern and Colour

The throat and chest of males is dark grey to brown.



Other Common Names

Clicking Froglet, Common Eastern Froglet, Common Froglet, Day Frog, Varied Froglet, Signifera Froglet

Calling

Males call almost all year round but choruses of males are usually heard during and after rain. Their cricket-like chirping can be heard all day. They call from among vegetation at the water's edge or floating in open water supported by vegetation. The call is a series of three to five pulsed calls, with a chirping, creaking, or ratchet-like quality, rapidly repeated in a long series - "crick crick crick crick crick".

Tadpoles

Small, vary from light grey or brown to a dark background, covered with gold or dark flecks. Some are entirely sandy gold in colour. Aquatic, can be found in ponds, dams, swamps, flooded grassland, and ditches.

Eggs

100-150 pigmented eggs, usually laid singly, sometimes in loose clumps, scattered around the bottom of ponds, dams, swamps, flooded grassland, and ditches in shallow water or attached to vegetation (aquatic).

Habitat & Distribution

Found in almost all habitats where there is water or damp ground, including wet sclerophyll forests, grasslands, disturbed areas and sometimes suburban ponds. Shelter under logs and debris, usually in moist depressions or near water. It is not uncommon to find dozens of individuals under one log or rock.

Found at the south-eastern and southern edge of the Mallee region. Recorded in the Birchip area in 2003-2004. Recorded at Fisher's Lagoon near Narrung in 2004. Recorded at Macredie Island in 2006.

Interesting Facts and Distinguishing Features

This species can be distinguished from frogs in the same genus through its belly colouration and call.

The Plains Froglet (*Crinia parinsignifera*) is usually smaller with a grey granular belly, and a squelching call "eeeeiiiiiiik..."

Tadpoles and adults are an important food source for many wetland birds.

Females are larger than males.

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs		•					•	•	•	•	•	
Tadpoles										•	•	•
Breeding Season	•	•	•	•	•	•	•	•	•	•	•	•

Eastern Banjo Frog, Pobblebonk

Limnodynastes dumerilii



Photo Bob Merlin and Mallee Catchment Management Authority **Location** Mildura

Adult Length

Up to between 50 and 90mm.

Description

Well-known frog, often seen after rain.

Belly: Texture

Smooth.

Belly: Pattern and Colour

Plain white; sometimes mottled with grey or marbled with black, grey and white.

Back: Texture

Smooth or warty.

Back: Pattern and Colour

Multi-coloured ranging from grey, olive-green, dark brown to black with dark marbling, blotches or flecks. A pale stripe runs from under the eye to the arm, above this a dark band runs from the eye to the tympanum (ear). Some individuals have a pale stripe running down the spine.

Groin and Limbs: Pattern and Colour

White or yellow in the groin. Sides of thighs often mottled with black and bluish-white.

Throat: Pattern and Colour

Sometimes bright yellow.



Other Common Names

Eastern Pobblebonk, Four-bob Frog, Grey-bellied Pobblebonk, Bullfrog

Calling

Males call throughout most of the year from burrows at the water's edge or while afloat concealed amongst vegetation; less often from land at the water's edge. Calling is more intense after heavy rain and males will sometimes congregate in large numbers. When one frog starts calling others usually join in.

The call is a short musical, explosive note producing a single resonant "plonk" or "bonk", usually repeated every few seconds, and likened to the pluck of a banjo string. Some individuals from eastern populations can produce a rapid series of "bonk bonk bonk bonk" lasting about one second.

Tadpoles

Medium to large, dark brown or black, sometimes with dull gold clusters of colour over the top or flecked with darker spots. Fins are dark grey/brown, flecked with darker spots or flecks. Inhabit still water in swamps, streams, dams, and lakes and spend most of their time at the bottom of ponds feeding on sediment and other vegetation.

Eggs

Up to 4000 pigmented eggs are laid at one time, enclosed in a large (1200 - 1800mm diameter) white frothy floating foam raft, usually concealed in aquatic vegetation. Found in still water in swamps, streams, dams, and lakes.

Habitat & Distribution

Frequent all habitats within the Mallee region except extremely arid areas. They are commonly seen after rain near dams, ditches and other bodies of still or slow-moving water. Build burrows.

Recorded in the Birchip district in 2003-2004. Recorded at Macredie Island in 2006. Recorded on Mulcra Island in 2006. Recorded at Wallpolla Island in 2004-2005 and 2005-2006. Recorded at Ned's Corner in 2005-2006.

Interesting Facts and Distinguishing Features

This common and widespread burrowing frog may often be found in large numbers at night, particularly after rain. Begin breeding almost immediately after rain. Distinguished from both Spadefoot Toads (*Neobatrachus* species *N. pictus* and *N. sudelli*) by its tibial gland.

Subspecies: Since *Limnodynastes dumerilii* can vary a lot in colour, size and call, this species has been grouped by scientists into five subspecies. Those potentially occurring in the Mallee region are *L. dumerilii dumerilii* and *L. dumerilii variegatus*.

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs	•	•	•	•				•	•	•	•	•
Tadpoles	•	•	•	•	•	•	•	•	•	•	•	•
Breeding Season	•	•	•	•				•	•	•	•	•

Barking Marsh Frog

Limnodynastes fletcheri



Photo Peter Robertson and Wildlife Profiles Pty Ltd **Location** Wallpolla Island

Adult Length

Usually up to 50mm in length, but up to between 30mm and 60mm.

Description

A small to moderate-sized ground-dwelling frog.

Belly: Texture

Smooth.

Belly: Pattern and Colour

Plain white.

Back: Texture

Smooth to warty.

Back: Pattern and Colour

Light grey or brown with large irregularly-edged brown or black to olive green blotches and spots.

Limbs: Pattern and Colour

Limbs with scattered dark spots or irregular cross-bands.

Eyes: Pattern and Colour

Often a small pink to purplish, red or orange patch on the back of each upper eye lid. A dark patch below the eye.



Other Common Names

Barking Frog, Fletcher's Frog, Long-thumbed Frog

Calling

Males call from the water most often concealed in floating vegetation, often after rain. The call is a single short modulated note, similar to the sound of a distant barking dog and is repeated every few seconds - "whrup", "bark", "rok" or "whuck" sound.

Tadpoles

Range from translucent whitish gold with an olive tint to an opaque grey-brown to olive brown. Can swim quickly when disturbed. Found in slow moving or still water, in isolated ponds, dams, lakes, and occasionally rivers.

Eggs

Approximately 300 pigmented eggs are laid in a large floating foam mass, often attached to reeds. Found in slow moving or still water, in isolated ponds, dams, lakes, and occasionally rivers.

Habitat & Distribution

Most often associated with water, in woodlands, floodplains around the banks of large lakes and rivers, and grassy areas. Usually found sheltering under rocks, logs, other ground debris, and in yabby burrows.

In the Mallee region, largely restricted to the floodplains of the River Murray. Recorded at Macredie Island in 2006. Recorded in the Mallee CMA region in 2006-2007. Recorded on Wallpolla Island in 2005-2006.

Conservation Status

Victorian conservation status is data deficient.

Interesting Facts and Distinguishing Features

Most often confused with the Spotted Marsh Frog (*Limnodynastes tasmaniensis*) - the call is the only real reliable method of identification. They can be distinguished by the following methods:

- 1 The spots and blotches on the back of the Spotted Marsh Frog (*L. tasmaniensis*) tend to be regularly shaped with smooth borders while those of the Barking Marsh Frog (*L. fletcheri*) tend to be irregularly shaped with obscure and fuzzy edges and are often interspersed with dark flecks and peppering.
- 2 A small red or orange patch on the upper eyelid, or pink/purple eyelids, are often present in the Barking Marsh Frog (*L. fletcheri*) but is extremely rare in the Spotted Marsh Frog (*L. tasmaniensis*).
- 3 The Barking Marsh Frog (*L. fletcheri*) usually has a butterfly-shaped blotch between the eyes while in the Spotted Marsh Frog (*L. tasmaniensis*) this marking is unlikely to occur.

Life Cycle

Breeding usually occurs during spring and autumn.

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs										•		
Tadpoles	•	•	•	•	•	•	•	•	•	•	•	•
Breeding Season	•	•	•	•					•	•	•	•

Spotted Marsh Frog

Limnodynastes tasmaniensis



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Adult Length

Usually around 35 to 45mm but up to between 30mm and 60mm.

Description

A moderate-sized terrestrial species.

Belly: Texture

Smooth.

Belly: Pattern and Colour

Plain white.

Back: Texture

Smooth to warty.

Back and Sides: Pattern and Colour

Light brown to olive green, with large darker spots and blotches. Usually has a pale narrow stripe running down the middle of the back ranging from white to pinkish, yellow, red, or orange in colour. A raised stripe runs from below the eye to the arm.

Limbs: Pattern and Colour

The legs and arms have dark blotches like the body, or irregular dark cross-bars.

Throat and Snout: Pattern and Colour

A dark band runs from snout to eye. Adult males have a dark throat.



Other Common Names

Spotted Frog, Spotted Grass Frog

Calling

Males call from the edge of the water or while floating in water, most often concealed in floating vegetation. Distinctive loud and fast call that varies across its distribution, described variously as “dagga-dagga-dagg”; short staccato call of three or four distinct notes repeated in long series - “kuk-kuk-kuk”; machine gun “uk-uk-uk-uk-uk-uk” repeated at intervals; or single sharp call - “click” or “plock” - similar to the sound made when two stones are struck together. The western males tend to have a single call, or a call somewhere in between the single click and series of clicks.

Tadpoles

Medium-sized; vary from translucent grey-brown, whitish gold to olive grey, or black. Fins are usually semi-transparent or light grey. Found in still water in dams, streamside ponds, lakes, swamps, and flooded grasslands.

Eggs

80 to 1500 pigmented eggs are laid in a small, often circular floating foam mass measuring between 50 and 80mm in diameter. The nest is usually amongst vegetation not far from the water’s edge. (See page 12)

Habitat & Distribution

One of the most common frogs within its range, often abundant, and the first frog to colonise new habitats. Mostly associated with wet or marshy areas, in a wide variety of habitats. Typically found near grass-lined streams and ponds. Often common on farms (particularly those that are ungrazed). Shelters in cracks in the ground, usually under large logs and rocks, particularly in dry periods.

Occurs mainly in the south-eastern and southern edge of the Mallee. Recorded in the Mallee CMA region including Birchip area (2003-2004), Wallpolla Island (2004-2006), Lindsay Island (2004), Macredie Island (2006) and Ned’s Corner Station (2005-2006).

Interesting Facts and Distinguishing Features

Most often confused with the Barking Marsh Frog (*Limnodynastes fletcheri*).

Can be distinguished from *L. fletcheri* by the following:

- 1 The spots and blotches on the back of the Spotted Marsh Frog (*L. tasmaniensis*) tend to be regularly shaped with smooth borders while those of the *L. fletcheri* tend to be irregularly shaped with obscure and fuzzy edges and are often interspersed with dark flecks and peppering.
- 2 A small red or orange patch on the upper eyelid, or pink/purple eyelids are often present in the *L. fletcheri* but is extremely rare in *L. tasmaniensis*.
- 3 *L. fletcheri* usually has a butterfly-shaped blotch between the eyes while in *L. tasmaniensis* this marking is unlikely to occur.

The call is the only real reliable method of identification.

Life Cycle

The main breeding season occurs between August and March.

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs	•	•		•	•			•	•	•	•	•
Tadpoles	•	•	•	•	•	•	•		•	•	•	•
Breeding Season	•	•	•	•	•			•	•	•	•	•

Mallee Spadefoot Toad

Neobatrachus pictus



Photo Peter Robertson and Wildlife Profiles Pty Ltd **Location** Patchewollock

Adult Length

48-58mm.

Belly: Texture

Smooth.

Belly: Pattern and Colour

White.

Back and Sides: Texture

Warty, when reproductive covered in small round horny capped warts giving a prickly appearance; during the breeding season the males develop black spines.

Back: Pattern and Colour

Ranges from grey through to yellow, with large irregular dark green or brown blotches. There is usually a thin cream stripe running down the spine. Many of the warts having yellow tips.

Limbs: Pattern and Colour

In reproductively active individuals the skin on the legs is covered with small round horny capped warts giving a prickly appearance.

Throat and Snout: Pattern and Colour

Darker edge to lower jaw and dark sides of throat.

Common Spadefoot Toad

Neobatrachus sudelli



Photo Peter Robertson and Wildlife Profiles Pty Ltd **Location** Hattah

Adult Length

35-40mm

Belly: Texture

Smooth.

Belly: Pattern and Colour

Plain white.

Back: Texture

Warty, in reproductively-active individuals is smooth or covered in low rounded warts.

Back: Pattern and Colour

Grey, brown, yellow or reddish-brown with large dark brown or olive green blotches. Darker warts sometimes tipped with yellow. Often there is a pale narrow stripe running down the spine. During the mating season males develop black spines.

Groin and Limbs: Pattern and Colour

The skin around the groin is loose, there are membranes of skin between the knees and the sides of the body like 'baggy pants'.

Throat: Pattern and Colour

Throat and lower jaw is darker in breeding males.



Other Common Names

Painted Burrowing Frog, Sudell's Frog, Meeowing Frog, Eastern Metal-eyed Frog

Calling

Males call while floating in still, open water. Males will call after heavy rain in almost any season. The call is very similar to that of the Mallee Spadefoot Toad (*Neobatrachus pictus*) but is a shorter and more slowly pulsed musical trill - "craa-aw-aw-aw-aw-aw-awk".

Tadpoles

Large; vary from grey or golden-brown, to silvery grey. The fins are clear and sometimes have dark flecks.

Eggs

Females lay chains of up to 1000 pigmented eggs contained within long jelly strings in ponds, dams, ditches, and flooded claypans (aquatic). Egg chains are wrapped around submerged vegetation when present. (See page 12)

Habitat & Distribution

Most often found in dry habitats, including woodlands, shrubland, mallee, open, and disturbed areas. Within these habitats they may be found wandering on moist nights, far from the nearest permanent water. Found throughout most of Victoria's dry regions. Recorded in the Birchip area in 2003-2004. Recorded in the Lake Walla Walla area in 2005-2006.

Interesting Facts and Distinguishing Features

This frog is a burrower and remains buried for much of the time, becoming active after rain. It can be distinguished from the Mallee Spadefoot Toad (*Neobatrachus pictus*) by its 'baggy pants' and by the nature of the warts on the back of reproductively active individuals - low and smoothly rounded in the Common Spadefoot Toad (*N. sudelli*), raised and horny-capped in the Mallee Spadefoot Toad (*N. pictus*).

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs				•	•	•	•					
Tadpoles			•	•	•	•	•	•	•	•	•	•
Breeding Season			•	•	•			•	•	•		

Bibron's Toadlet

Pseudophryne bibronii



Photo Peter Robertson and Wildlife Profiles Pty Ltd

Adult Length

Less than 30mm.

Description

A squat terrestrial species.

Belly: Texture

Smooth or slightly granular.

Belly: Pattern and Colour

Coarsely marbled black and white or black, grey, and white.

Back: Texture

Smooth or warty or smooth with low warts.

Back: Pattern and Colour

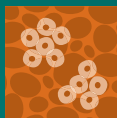
Mid-brown to black on its back with darker flecks and occasionally red spots, with a pair of boomerang-shaped ridges over the shoulder. There is a faded yellowish stripe down the middle of the lower back and a bright yellow patch around the cloaca.

Limbs: Pattern and Colour

On the base of each arm there is an orange or yellow patch.

Snout: Pattern and Colour

Often a pale vertical mark on the tip of the snout.



Other Common Names

Brown Brood Frog, Brown Toadlet

Calling

Males call from February through to June from within the nest or burrow, especially after heavy rain. The call is a short harsh grating “cre-ek” or “ark” or squelching sound “aah-ek” at regular intervals, repeated every few seconds.

Tadpoles

Small and vary in colour from dark brown to light grey. Some have patches of silver-gold on a black background. Fins are clear and finely flecked with black or brown. Aquatic in ponds, flooded grassland and roadside ditches.

Eggs

Between 70 and 200 large pigmented eggs are laid on moist soil in loose clumps, and often coated in soil or mud. Spawned in shallow burrows (or nests) under litter, in low areas, near water, that will later be flooded.

Habitat & Distribution

Adults frequent dry forest, woodland, shrubland and grassland. They shelter under leaf litter, rocks and logs in moist soaks and depressions. They choose damp nest sites beside swamps, creeks and ditches. Usually found in the south-eastern and southern edge of the Mallee.

Conservation Status

Listed under the *Flora and Fauna Guarantee Act 1988*.

The area occupied has declined in the last decade or so.

Interesting Facts and Distinguishing Features

Pseudophryne bibronii is distinguished from most other frogs by the coarse black and white marbling on its undersurface. A small and secretive autumn-breeding frog found across much of south-eastern Australia. Like all members of its genus this frog tends to walk rather than hop. Thought to feed mainly on ants that it catches while foraging on the ground at night. Also eats small beetles and mites. Breeding congregations usually occur in inundated grassy areas beside small creeks, etc.

Life Cycle

	J	F	M	A	M	J	J	A	S	O	N	D
Eggs				•	•	•						
Tadpoles									•	•	•	
Breeding Season			•	•	•	•						



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The Mallee Catchment Management Authority plays a significant role in the Mallee region in maintaining and improving the health of the River Murray and its floodplain.

Delivering environmental water to important areas of creeks and wetlands is one of the ways we are helping keep our River Red Gum forests alive.

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