

Gumnut Gazette

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Amazing Amphibians

Not a Reptile!

Although there are some similarities, amphibians are not reptiles!

It's true, reptiles and amphibians are both ectothermic, which means they are cold-blooded. They are also vertebrates, which means they are an animal with a backbone. But the main differences are amphibians don't have scales, and they need water to survive.



Acknowledgement to country

The Department for Environment and Water acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present and emerging. We acknowledge and respect the deep

A fun thing about amphibians is, that they live part of their lives in water and part on the land too.

Amphibians are distinguished by having an aquatic gill-breathing stage to start off, then followed by an adult that breathes air.

There are three main groups within the amphibian family, these are frogs and toads, salamanders and newts, and caecilians (which are a wormlike creature).

In Australia, there are just over 200 species of frog known, but over 4000 identified throughout the world.

Keep reading to find out more!

spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

The Department works in partnership with the First Peoples of South Australia and supports their Nations to take a leading role in caring for their Country.

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FUN FACT

'Herpetology' is the study of amphibians (and reptiles)!



Fun and games

Can you find me?

Find-a-Word

N	B	F	R	O	G	M	A	A	T	L	E	G	R
C	O	O	H	V	U	R	B	L	K	S	G	G	E
I	R	E	I	A	E	A	H	S	S	T	E	P	S
M	E	E	R	T	R	R	U	P	D	S	G	A	I
R	D	T	E	H	O	C	T	O	A	A	E	I	L
E	N	A	T	A	U	A	T	E	A	T	I	M	O
H	A	D	A	M	O	E	D	O	B	I	M	E	I
T	M	P	W	R	M	D	O	S	O	R	A	K	E
O	A	O	L	A	N	D	L	K	P	I	A	N	R
T	L	L	E	I	E	R	P	I	M	E	Y	T	D
C	A	E	O	C	B	V	N	N	I	A	O	A	E
E	S	T	Y	A	M	P	H	I	B	I	A	N	O
R	T	H	E	R	P	E	T	O	L	O	G	Y	F
N	A	I	L	I	C	E	A	C	C	O	H	L	E

AMPHIBIAN

FROG

TOAD

VERTEBRATE

WATER

LAND

HERPETOLOGY

SALAMANDER

CAECILIAN

ECTOTHERMIC

EGGS

TADPOLE

SKIN

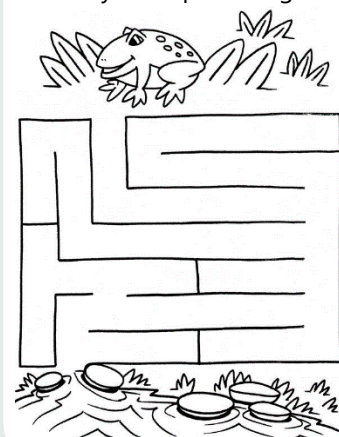
MUCUS

JUMBLE WORD

A N A H M P B I I

MAZE

Can you help the frog?

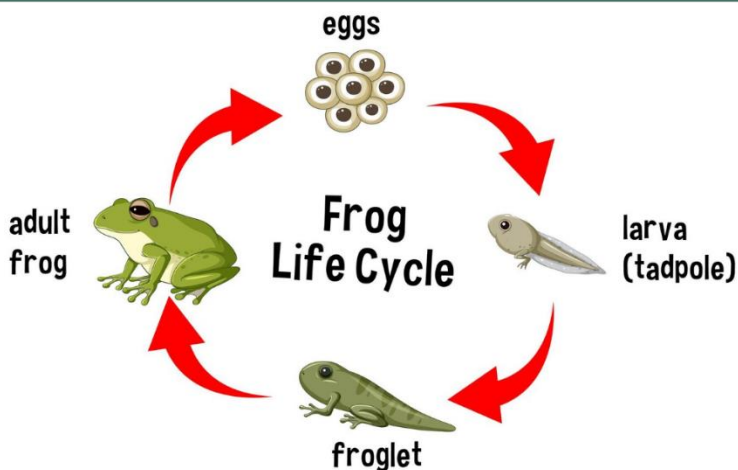


Q&A

What is the study of amphibians called?

- A. FROGISMS
- B. HERPETOLOGY
- C. TOADUCATION

Circle the correct answer!



Adult frogs lay hundreds of tiny eggs, known as frogspawn.

The eggs then hatch and out comes a tadpole. They live in the water, have gills, a mouth and a long tail for swimming. To keep growing, they eat plant material that gets filtered through the water. This stage of a frog's life is called the 'larval stage'.

Froglet: Then, the tadpoles grow back legs, front legs and they begin to eat insects. Their tail shrinks away, skin grows over their gills, and they develop lungs for breathing air, and eardrums for hearing.

Then, you have a fully developed adult frog!

Frog Life Cycle, credit to @brgfx via freepik.com



Do you know?

The Cane Toad was introduced into north Queensland, Australia in 1935 to try and control the cane beetle, but it didn't work. Now, cane toads are spread throughout Australia!



Can you see the Cane Toad hiding?
Taken by CWP Staff member

What's the Difference?

Frogs vs. Toads – which is which?

There are more than 50 families combined of frogs and toads. But when you hear the word "toad", what you picture in your head is probably a true toad. True toads have bumpy skin, short legs, and big poison glands behind their eyes.

One of the true toad species is the Cane Toad. They are the largest species of toad, and they are considered pests because of their negative impact on native species. Quolls and goannas have been especially hard-hit from the toad and its poison.

It can hard to tell the difference between a cane toad and a native frog. Cane toads, however, are larger, have short limbs, bumpy, dry skin, they sit upright, and they move around by crawling or walking, unlike frogs, who hop. Cane toads don't have toe pads, and they can't climb up walls like frogs can either. The most noticeable feature of a cane toad is their parotid glands that sit behind their ears, full of poison. Another way to tell the difference is by listening to their call. Cane toads make a low, long trill, whereas frogs croak!

Cane toads are an invasive species and have been able to spread throughout Australia, by humans accidentally transporting them within loads of timber, pot plants, or anything they can shelter in.

Do you think every frog is good at jumping? Not quite!

The painted frog can't jump very well at all, instead it simply 'plops' around. Instead of being able to hop away from danger, it puffs itself up and tricks predators into thinking it's too big to fit in their mouths!

Dot-to-Dot

Can you follow the numbers to find out what the picture is?

Do you know?

The presence of a brown tree frog in your garden can be great for your plants, as it can help control pests and insects. If you want to encourage them to live in your garden for good, build a pond!



www.connectthedots101.com

South Australian Amphibians

Did you know that frogs are the last remaining amphibian in Australia! They are highly sensitive to changes in their environment, including pollution, habitat destruction and climate change, so it is important to monitor where they live. Frogs are important to look after because they provide pest control and are great indicators of environmental health.

You can identify different frogs by the sounds that they make; they each have their own unique song, and by the different colours and patterns on their bodies. We have 6 fascinating frogs to look out for if you live in South Australia...

1. Bibron's toadlet (*Pseudophryne bibroni*)

These frogs are interesting because their cycle of life is a bit different to other frogs, in the way they lay their eggs. Unlike other species, these frogs will lay the eggs on damp leaves or grass, in a dry creek bed or a boggy area that's likely to be flooded, instead of directly in the water. Tadpoles will then hatch from the eggs and continue to grow, but only if there has been enough rain to flood and cover the area and eggs in water. Then in 6 months' time, a fully grown frog appears!

Bibron's toadlet



5 frogs of South Australia, credit to Steve Walker, via environment.sa.gov.au

Brown tree frog



Brown tree frog at Cleland, credit to CWP Staff

2. Brown tree frog (*Litoria calliscelis* - *Litoria ewingii* - *Litoria sibilus*)

There are 3 different species of Brown tree frogs in South Australia. The most common species is the Mount Lofty Ranges tree frog (*Litoria calliscelis*) which you will find throughout the Southern Flinders Ranges, Mt Lofty Ranges and the Murray River. In the South East, the second species is the Brown tree frog (*Litoria ewingii*). The third is found on Kangaroo Island, and is called the Kangaroo Island tree frog (*Litoria sibilus*). If you ever hear a frog call that sounds like a cricket, It is most likely the croak of a brown tree frog!

3. Eastern banjo frog or Pobblebonk (*Limnodynastes dumerilii*)

Just like the name suggests, the Eastern banjo frog makes a noise like a banjo string being plucked! Or it sounds like it's singing "pobblebonk". These frogs usually live underground, depending on the season or location. In spring and early summer, they come out to find a mate and breed, and they're very noisy so listen out! A pair can make around 4000 eggs and it only takes a week for tadpoles to hatch!

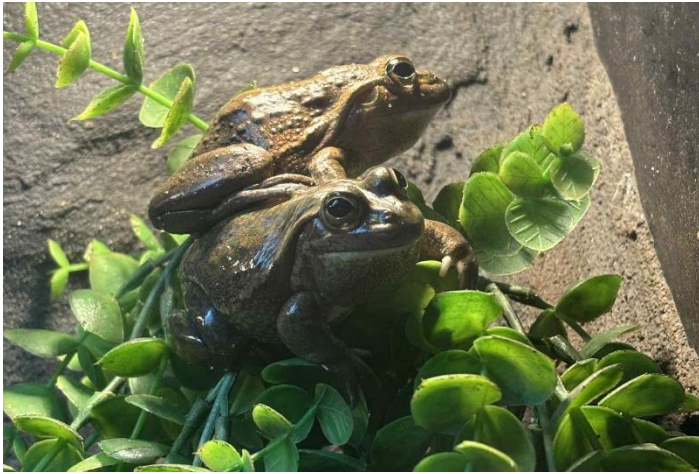
Eastern banjo frog



5 frogs of South Australia, credit to Steve Walker, via environment.sa.gov.au

South Australian Amphibians

Southern Bell frog



Southern Bell Frogs at Cleland, credit to CWP Staff

4. Southern Bell frog (*Litoria raniformis*)

Also known as the 'Growling Grass Frog' because they make loud, growling calls. These frogs are found in permanent water bodies, including rivers, lakes and wetlands with lots of vegetation. They are vulnerable in South Australia but there are populations existing in the Murray Valley and South-East. Southern Bell frogs mainly eat insects but are also known to eat small lizards or other frogs. These frogs can be quite large and, once hatched into a tadpole, it can take up to 12 months to develop into a fully grown frog.

5. Spotted marsh frog or spotted grass frog

(*Limnodynastes tasmaniensis*)

These frogs can be grey, green or brown and are covered in spots! Depending on where they live in South Australia (north, west or south), they have different croaks, but all sound something like a toy machine gun. It is only the male that makes this noise, and it happens when he floats in the water. During the day, these frogs like to hide in grass or reeds, which is where the females will lay eggs. She makes a foamy nest by mixing air into the jelly as she lays them.

Spotted marsh frog



5 frogs of South Australia, credit to Steve Walker, via environment.sa.gov.au

Painted frog



5 frogs of South Australia, credit to Steve Walker, via environment.sa.gov.au

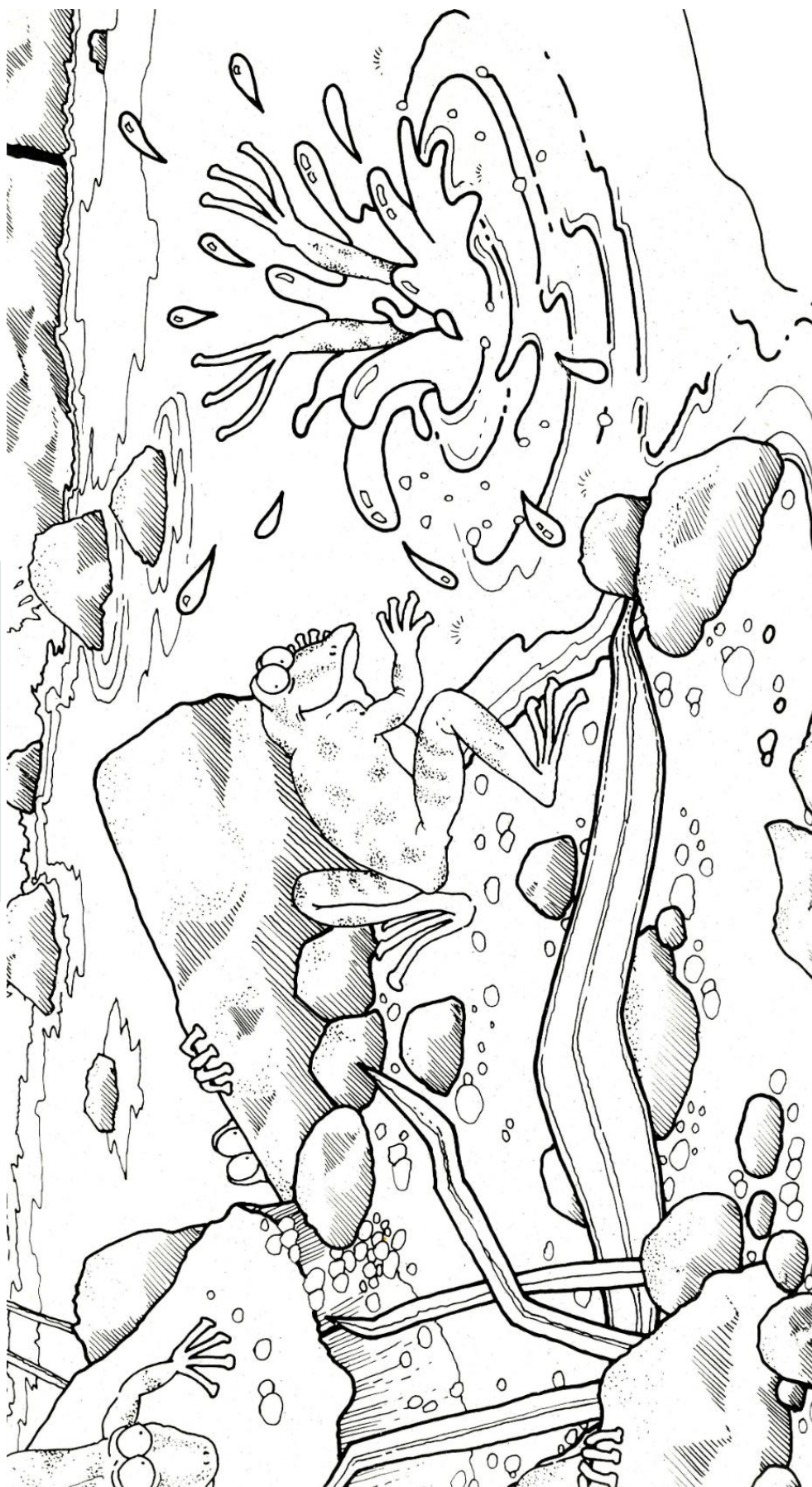
6. Painted frog or burrowing frog (*Neobatrachus pictus*)

This frog lives throughout various parts of South Australia within woodlands, mallee, and open and disturbed areas. They have quite a striking colour and eyes that look like a cat's. They have special feet that help them burrow underground. They spin around like a corkscrew and go bum-first into the dirt. During breeding season, the male Painted frog gets little spikes all over his body, likely to help him fight away any competition.



Fun and games

Colour me in!



Fun Frog Facts

1. Frogs don't drink water, instead they absorb it through their skin.
2. Frogs have long sticky tongues to catch their food (insects like flies or crickets).
3. When frogs croak, they are talking to each other.
4. Frogs have slimy skin to help them breathe.
5. The mucus frogs have acts as a protective barrier on frogs' skin and helps their toes to be sticky.
6. Frogs have powerful long legs for jumping.
7. Frogs swallow using their eyes; its eyes retract into its head and help push the food down its throat.
8. Frogs can be green, brown, and even bright colours like yellow and red.

How can you help?

Avoid spraying chemicals in your garden and control your pets – especially cats. In fact, keeping your cat indoors is the best option for all native animals and can be beneficial for your feline friend too.

What's next at Cleland?

Winter School Holidays:

Connect with Family,

Connect in Nature.

Bush Play: 2-4 years

Mon + Wed: 10am

Bush Kids: 5-10 years

+ supervising adults

Tues + Thurs: 10am

Book online now:

www.clelandwildlifepark.sa.gov.au

*limited spots available

World Frog Day is 20th March every year!

Great for raising awareness about the importance of frogs and how we can help them to survive.

Not From Here

Although you may have seen them before, there are some amphibians that are not native to Australia. There are three classes, they are salamanders, newts and caecilians.

Salamanders are a group of amphibians that almost look like lizards, with a body, 4 legs, and a tail, except they have smooth, wet skin. Salamanders mostly live on land, near water bodies, and can either camouflage with their habitat or be bright, bold colours. They are most commonly found in freshwater and damp woodlands, in Northern and Central America, and grow to about 10-20cm long. They eat insects, worms, snails or other small animals.

Newts are a part of the salamander family but are generally a lot smaller, growing about 10cm. Most newts have webbed feet and a tail like a paddle, which it makes it easier for them to live in the water, where they spend most of their time, unlike a salamander on land. Salamanders usually have longer tails and better developed toes for digging in soil. Newts develop lungs as they grow up, where a lot of salamanders do not, they both need wet skin to be able to breathe though, just like frogs!

Caecilians are a burrowing amphibian that looks a lot like an earthworm. There are almost 200 species known, and they range from 8cm to the giant 150cm caecilian! They spend most of their lives underground, or in shallow streams within America, Africa and Asia.

They do have eyes, but they're very small and don't see very well, so instead, they have tiny tentacles on their faces to help them feel for food or know where they're going. Caecilians don't have arms or legs but use their powerful skulls and muscles to dig through the dirt. They have a set of sharp teeth that help them catch prey such as worms, insects and other invertebrates, which they swallow whole!

Types of Salamanders



Do you know?

Newts have the ability to regrow fully functional limbs. Scientists still aren't sure how!

Types of Newts



Types of Salamanders / Types of Newts, credit to www.animalspot.net

If we were like frogs, our tongues would reach all the way down to our bellybuttons!



Do you know?

Just like frogs and salamanders, caecilians lay eggs!

A Congo Caecilian at the Sedgwick County Zoo, Credit to Joel Sartore, National Geographic

