

# What are Frogs?



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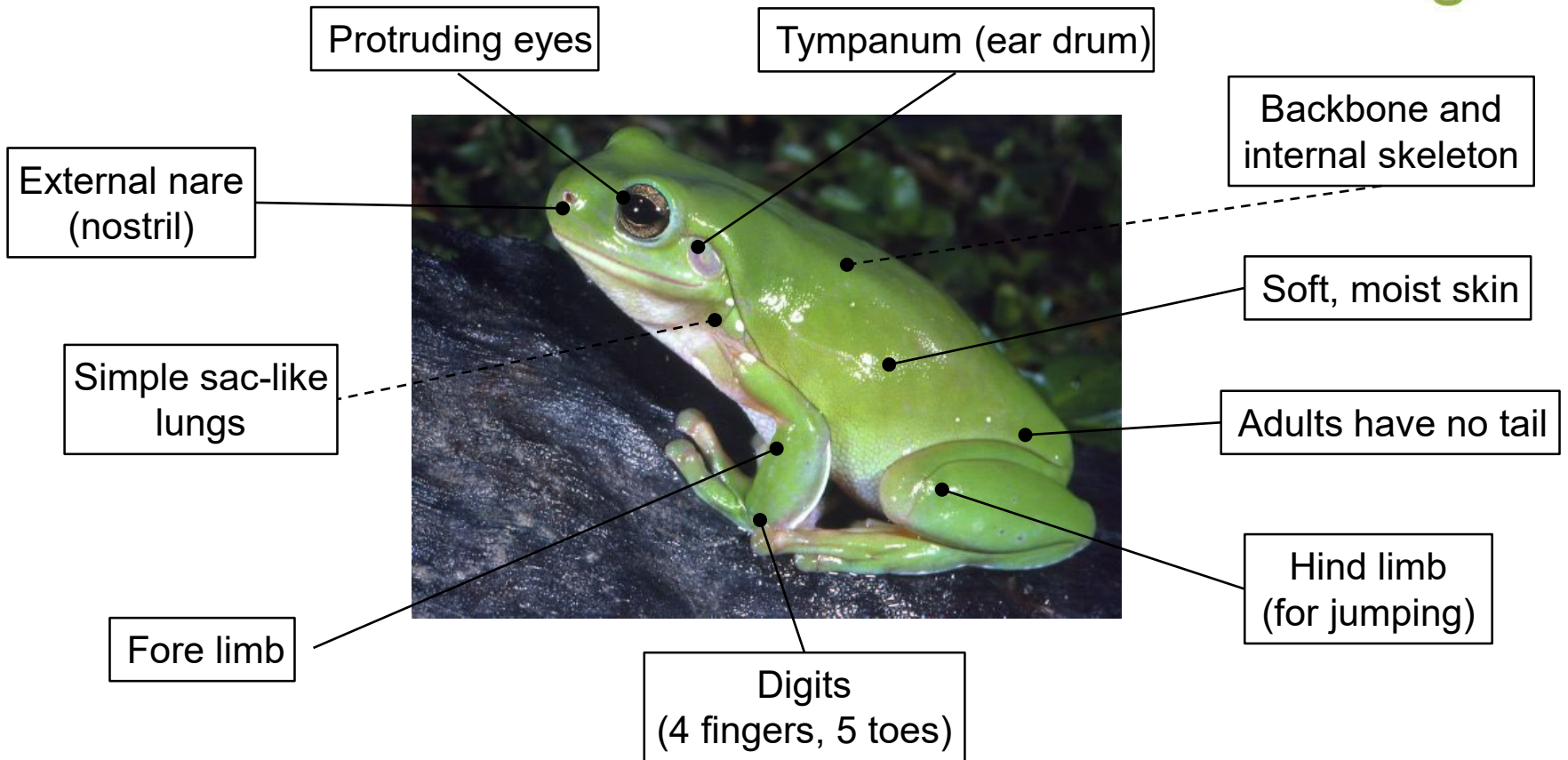


# What are Frogs?



- Frogs are amphibians. They evolved ~280 million years ago.
- Amphibian means 'two lives'.
- Amphibians include frogs, toads, salamanders and caecilians (snake-like animals).
- Australia has ~200 species of native amphibians (all frogs!).
- Frogs are cold-blooded, vertebrate animals.

# Features of a Frog



# Frog Skin



- Frogs live on land and in water.
- Their specialised skin allows them to live on land.
- Their moist skin has important biological functions including:
  - absorbing oxygen and releasing carbon dioxide
  - regulating their salt content and absorbing water
  - changing colour to camouflage themselves
  - secreting mucous to avoid drying out.

# Frog Life Cycle

- Frogs have slightly different life cycles depending on their habitat.
- Frogs have the following 4 basic stages in their life cycle:

## Tadpole

- Breathe with external gills
- Hind limbs develop first

## Eggs

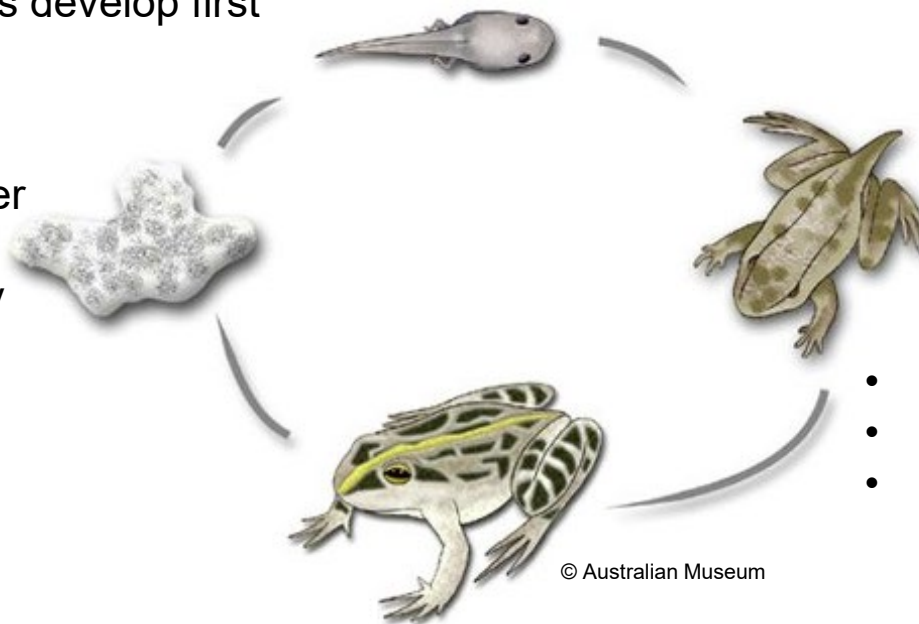
- Laid in or near water
- Eggs have no shell
- Need water so they don't dry out

## Metamorph

- Tail still present
- Fore limbs developed

## Adult Frog

- Tail absorbed
- Air-breathing
- Moist skin can dry out without water





# Threats to Frogs?



Frogs are susceptible to many changes in their environment:

- Salinity can impact on a frog's ability to regulate its salt/water balance.
- Temperature change can affect the ecology of frogs by forcing populations to alter habitat use and spawning times.
- Large changes in pH can also impact the distribution of local species and, in some cases, they will move out of an area altogether.

At present, frog populations are declining all around the world.

- Using frogs as bio-indicators can be as simple as noticing that a formerly noisy frog habitat has become silent



# Frogs in Australia



- Australia is home to about 240 native frog species.
- Frogs have adapted to many different habitats
- Some frog can burrow
- Some can clime trees
- Some will live in your backyard

The following slides show three frog species found in Australia.

# Ornate Burrowing frog

*Limnodynastes ornatus*



- This frog is well adapted to burrowing when there is little water, and is often found far from the coast and in arid environments.
- This burrowing species is usually active after rain.





# Corroboree Frog

*Pseudophryne corroboree*



- This frog lives in the Australian Alps.
- It is found in marshlands and forests under logs and vegetation.
- It likes to breed in the sphagnum bogs.

**This is the most endangered Australian frog and their numbers are decreasing**



# Perons Tree Frog

## *Litoria peronii*

- Common suburban frog
- Has black and yellow marbling on its thighs and armpits
- Eggs are laid in a floating raft which sinks a few hours later
- Found hiding by day in plant pots, drainpipes
- By night are sometimes seen on windowsills catching incoming insects





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