



Creating a frog friendly garden

Attracting frogs to your backyard

Attracting frogs into your backyard is not difficult. If you create the right conditions and habitat the frogs will find their way. You may even have resident frogs already.

The presence of frogs is a good indicator of the overall health of an ecosystem. By creating suitable habitats and refuges for frogs in our own backyards we can help their survival in challenging urban environments.

Some simple ways to encourage frogs to visit or move in include building a frog pond, adapting an existing wet boggy corner, converting a fish pond or modifying a water feature, even converting your in-ground swimming pool.

Frogs found within our urban areas are most likely to be attracted to a well-structured garden or bushland area with:

- thick leaf litter
- ground covers
- understorey plants
- shrubs
- trees
- moisture or ponded water
- logs and branches
- rocks

A garden with these elements will provide a diverse and sheltered environment for a range of ground dwelling and tree frog species.

In urban areas where this natural habitat is not always available, partially buried old terracotta flower pots, ceramic pipes and garden mulch can be used as substitutes.

Note: never remove or take logs and rocks from bushland areas. It is also illegal to remove any plants, plant material or rocks from bushland, reserves and parks.

If you want to obtain logs and natural materials for your garden try contacting a tree removal company or arborist in your local area, they may have some logs or branches to help replace wildlife habitat.



Constructed frog pond, using rocks, logs and native plants

Frogs also require unpolluted water and a shaded pond to breed in. However before you begin designing or digging, it is a good idea to check with your local council regarding laws surrounding water depth and requirements for safety fencing.

Creating a frog pond

Many of the common species of frogs found in urban areas will breed in any available water - from a bucket, old bath tub, garden water feature, and child's plastic wading pool to a purpose built vegetated pond. Your design can be as elaborate or simple as you choose. Purpose built frog ponds can be formally constructed with bricks and raised partly above ground as a feature or simply be a depression in the ground lined with a plastic pond liner to help retain water.



Frog pond designed within a child's plastic sandpit shell.

You can also build a small container pond for a balcony or deck using a large bowl, plastic container or a plant pot (ensure you fill the drainage holes with silicon and seal the pot with a non-toxic pot sealer). Whatever base design you choose, the following requirements will need to be incorporated.



Pond created in a ceramic bowl Photo: Gail Barlow

Pond design, location and frogsclaping

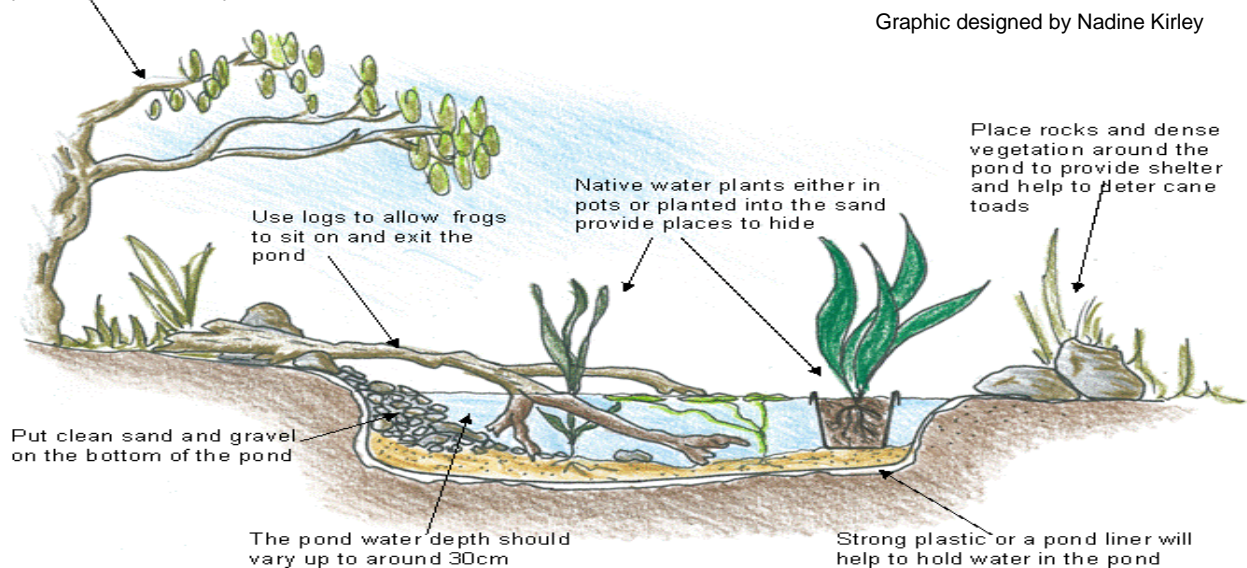
- The repetitive calls of frogs during the night can be very loud during the summer mating period. Ensure you select an area that is not near a bedroom window or likely to create conflict with an adjoining neighbour.



Green tree frogs (*Litoria caerulea*). Females are much larger than the males. Photo: Melinda Barlow

- Ensure the pond will have at least 75% shade for most of the day. Tadpoles are heat sensitive and will not survive if exposed to prolonged heat and sunlight.
- Ensure any storm water run off (from your property or adjoining properties) potentially containing pesticides, herbicides or fertilisers will not flow into your frog pond.

A small tree or large shrub will provide shade and protection



Graphic designed by Nadine Kirley

- Any container or plastic liners used in your frog pond should be free of chemicals or detergents.
- Place clean river sand and pebbles in the bottom of your frog pond and larger rocks around the outside.
- Incorporate an area within your frog pond with a water depth of at least 30cm.
- Not all frogs have the same breeding requirements so it is important to provide variable habitat. You may consider varying the depth in different parts of your pond and the density of your aquatic vegetation.
- Fill your pond with either rain water, or tap water that has been left in direct sunlight for 5 – 7 days to breakdown the chlorine. It is not recommended to use any chlorine neutralising chemicals.



Rocket frog (*Litoria nasuta*)

- If establishing a frog pond in a pot or container, place rocks and logs in a way that provides adult and juvenile frogs with both a dry refuge to climb onto from within the pond and safe easy access out of the pond.
- Include some native water plants. Some native waterlilies, rushes and sedges can be planted directly into the sand or into a pot placed in the pond. Aquatic plants will help to keep the water cleaner and also provide shelter and resting opportunities for frogs and tadpoles.
- Algae will grow on aquatic plants, rocks and logs within the water and will provide a food source for tadpoles. Tadpoles will also feed on decaying plant matter that falls into the pond.

- Plant a variety of local native plant species of various heights and forms and group ground covers to form dense clumps around the outside and edge of your frog pond. Include some local native shrubs and trees to provide shade, shelter and vantage points for calling.
- Flowering plants will attract insects for your frogs to feed on.
- A dense vegetation buffer around a frog pond can also assist as a barrier to cane toads.
- Never plant exotic water plants in your pond. Exotic water plants such as water hyacinth, salvinia and many of the species sold from pet shops for fish tanks can choke our dams and waterways, depleting them of available oxygen and killing our native aquatic invertebrates and wildlife.
- In addition to larger rocks around the outside of your pond, place several small logs and branches in the pond with one or both ends gently sloping out of the water to allow frogs (especially ground dwelling frogs) and metamorphosing tadpoles to climb out of the water and exit the pond.
- As tadpoles begin to develop legs and start breathing air, they need safe resting places such as logs and rocks just above the water level.



Green tree frog (*Litoria caerulea*) tadpole in metamorphosis

Common garden chemicals can kill

Frogs have thin skins that can readily absorb chemicals and pollutants in their environment.

Avoid locating your frog pond where there is potential for contaminated water to run off or flow into the pond. Like many other species of wildlife, frogs can also become very ill and even die if they eat insects that have been poisoned with pesticides and other garden chemicals. To ensure the health and survival of frogs in your backyard you should avoid using chemicals such as herbicides and pesticides around your frog pond and habitat.

The chlorine in treated tap water can also harm frogs and tadpoles. Never fill up your frog pond directly from the tap water. If you don't have a rain water tank and your pond needs 'topping up' it is recommended to fill an open container with tap water and leave it in the sun for at least 5 – 7 days. This will help to break down the chlorine.

Natural mosquito control

Frogs and older tadpoles will eat mosquito larvae during the wet seasons when they are active. However the inclusion of 3 or 4 small native fish such as the pacific blue eye (*Pseudomugil signifier*) will feed on mosquito larvae all year round and not eat all your tadpoles. Native fish can be fed with regular fish food.



Pond plantings such as mat rush (*Lomandra longifolia*), will also attract insects that in turn will eat mosquito larvae. One such species is dragonfly larvae.

Remember

- Keep cats and other pets inside or within a secure enclosure at night, especially during the warmer months when frogs are most active.
- Never translocate frogs or tadpoles as this can spread disease and introduce species that are not indigenous to your local area.

Some useful frog websites

- Queensland Frog Society
www.qldfrogs.asn.au
- Queensland Government
<https://environment.des.qld.gov.au/wildlife/animals/living-with/frogs/ponds>
- Queensland Museum
www.qm.qld.gov.au/Find+out+about/Animals+of+Queensland/Frogs

For additional information please contact council, or visit council's Living Smart Program website
www.livingmsmartqld.com.au.

