

Both the Southern and Northern Gastric Brooding Frogs, the Southern Dayfrog, Northern Dayfrog, Little Waterfall Frog and Mountain Mistfrog are now gone forever, the victims of an accidentally introduced micro fungus. Your backyard pond will never bring these species back, but it will help to maintain frog species in the highly disturbed urban environment.

WHAT ELSE CAN YOU DO?

- Become an active member of a conservation group such as the Queensland Frog Society
- Learn to accurately identify local frog species
- Help QFS survey the frogs of your area
- Report frog breeding sites to the QFS or your local council, especially those of rare and threatened species
- Speak out against damage to frog habitats such as clear felling and concreting of creek channels
- Set a good example for others by creating a frog friendly backyard including breeding, feeding and sheltering sites
- Consider a donation to the QFS Frog Trust. A lot more research is needed to determine causes of decline as well as detailed knowledge of the rare and endangered. This is what the Frog Trust was established to do
- Encourage your neighbours, relatives and friends to follow your good example
- **Never translocate** eggs, tadpoles or frogs. Not only is this unlawful in Queensland, it can be downright dangerous for the frogs
- Discourage frogs as toys or pets, they deserve to be born free and live free

FURTHER INFORMATION

Books

Reptiles and Amphibians of Australia. H.G. Cogger. 2000. New Holland Publishers, Sydney.

A Field Guide to Australian Frogs. J. Barker, G. Grigg and M. Tyler. 1995. Surrey Beatty and Sons. NSW.

A Field Guide to Frogs of Australia. Australian Museum/Reed Books, Sydney. 1998. M. Robinson.

Wildlife of Greater Brisbane. M. Ryan. (Ed). 2nd edition. 2007 Queensland Museum, South Brisbane.

Frogs in the Community. Proceedings of the Brisbane Symposium. 2002. A.E.O. Nattrass. Queensland Frog Society.

Frogs of Brisbane and surrounding areas. L. Morley. 1991. Queensland Frog Society.

Attracting frogs to your garden. K. Casey. 1996. Kimberley Publications.

CDs

Australian Frog Calls – Sub-tropical East. D. Stewart. Nature Sound.

Australian Frog Calls – Tropical North East. D. Stewart. Nature Sound.

Posters

Frogs of Brisbane. 1993. Queensland Frog Society.

Frogs of Toowoomba. Contact Qld. Frog Society.

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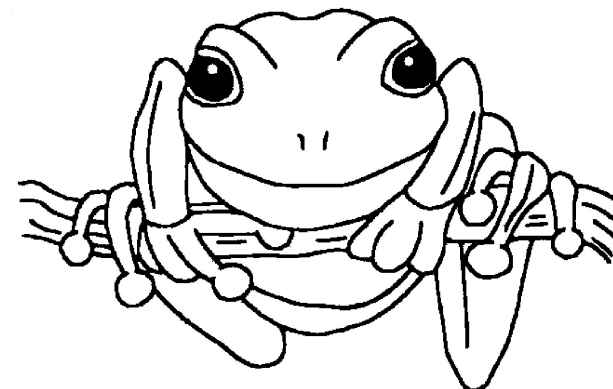
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Frogs

in your garden



Queensland Frog Society Inc.

Patron: Dr Glen Ingram

The ancestors of modern frogs appeared toward the end of the Devonian Period some 365 million years ago. Some of these went on to evolve into the terrestrial vertebrates we know today, including ourselves. Another group retained their dependence on water, at least to some extent, dispensed with the tail, and became the modern frogs we know today. For their ancient origin, they are particularly precious.

In the 20 years from 1979, Queensland saw six of its 120 native frog species disappear forever. Few people realise that those 20 years represent the state's worst period of vertebrate extinctions in the past 200. While these extinctions could not have been anticipated or prevented at the time, threats to the remaining frogs continue today.

More than ever - frogs need friends.

More than ever - frogs need your help!

LIFE CYCLE

Male frogs call in the breeding season to attract mates. The eggs of most species are usually laid in or near water and may be surrounded by either clear gel (treefrogs) or a frothy, floating foam (ground frogs). Hatching will take between 24 hours and several days depending on the species and temperature. It should be noted that there are many exceptions to these rules, but from a backyard pond point of view, most species conform.

Tadpoles eat mainly decaying plants, living algae and drowned insects. They gradually develop hindlegs, forelegs and lungs allowing them to leave the water and begin their growth to adulthood. At this point the tail is resorbed into the body. It does not “drop off” as many people believe.

The tadpole stage varies enormously from species to species and depends on temperature, food supply and competition from other tadpoles. Some species, such as the Ornate Burrowing Frog can go through the tadpole stage in as little as 15 or 16 days! Others, such as the Barred Frogs can take many months.

When the froglets emerge from the pond, they feed on small insects such as mosquitoes, vinegar flies and microlepidopterans (tiny moths). Larger frogs take larger prey, even including small mammals, such as the House Mouse.

Frogs in turn are eaten by a wide range of predators including birds, fish, turtles, snakes, carnivorous mammals and even other frogs. Frog lovers need not be concerned about predation by other native animals. All this does is ensure that only the very best survive from often very large numbers of eggs.

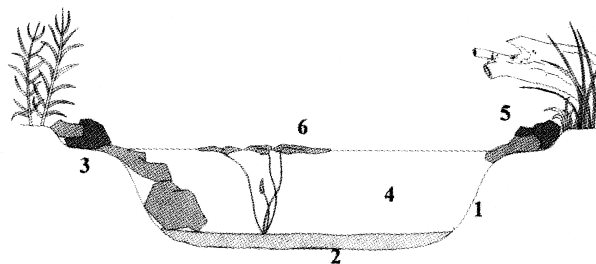
Frog species which produce only small numbers of eggs, tend to provide a great deal of parental care thereby maximising their offspring's survival rates.

Frog species which produce large numbers of eggs rely on their large clutches to maintain populations.

FROG FRIENDLY GARDENS

Frogs need food, shelter and breeding opportunities. A heavily vegetated backyard will provide more resources for a higher number of frogs than a lightly vegetated one. Additionally, the greater the diversity of plants and sheltering sites is, the greater the diversity of frogs will be. High humidity helps, but this needs to be balanced with sound water use practice. Collecting your own rainwater to top up ponds and maintain garden moisture levels, heavy mulching and trickle irrigation will allow greater frog amenity without impacting on water conservation. On the other hand, long dry spells will not have an adverse long term effect on your frog population. When it's dry – they just stay hidden.

SETTING UP A POND



1. Plastic pond liner
2. Washed sand or gravel
3. Ledge for plants or rocks
4. Water depth to 20cm
5. Rocks, logs
6. Native water plants

ABOVE GROUND PONDS: Any clean non-metallic container can be used. Tadpoles prefer shallow water with a large surface area. Toddlers ‘clamshell’ wading pools are suitable.

POSITION: Tadpoles are heat sensitive. A position which is predominantly in the shade is best. Frog choruses at night can be quite loud and can disturb some people. Talk to the neighbours before choosing the pond's position.

WATER: Rainwater is best, but tap water can also be used quite safely if left to ‘cure’ a few days in sunlight before using to top up ponds or establish a new one.

WATER PLANTS: Use only native species! There are some very serious exotic weeds of waterways and it is the responsibility of pond owners to ensure they aren't contributing to the problem. Fortunately there are now native plant nurseries that have made the effort to develop a good knowledge and stock of locally native water plants. For SEQ, ask for Azolla Fern *Azolla pinnata*, Common Duckweed *Spirodela punctata*, Water Milfoil *Myriophyllum crispatum*, Marshwort *Nymphoides exiliflora* Water Snowflake *Nymphoides indica*, Smooth Nardoo *Marsilea mutica*, Clasped Pondweed *Potamogeton perfoliatus* and Hydrilla *Hydrilla verticillata*. There are others as well.

MOSQUITO CONTROL: It is essential that backyard frog ponds do not become a major source of disease carrying mosquitoes. If they do, they will be banned. Both the Fire Tailed Gudgeon *Hypseleotris galii* and the Pacific Blue Eye *Pseudomugil signifer* are native SEQ species and will devour any mosquito eggs or larvae in your pond. Fire Tailed Gudgeon are often available in pet shops as live food for exotic pets and are very economical to buy. Even though the fish may consume some of your eggs and tadpoles, they will have no serious effect on your frog population.

WHAT ABOUT CANE TOADS?

Cane Toads are here to stay, at least for the present. They do not eat eggs, tadpoles or native frogs. The problem is that they compete! Sometimes they will out-compete native species, seriously reducing their numbers. For this reason they should be denied breeding opportunities in your pond. If you have chosen the shadiest spot, if you have made sure the depth of water in the pond does not exceed 20cm, you are unlikely to be helping the toads. They like their breeding pond to be deeper and warmer. Surround your pond with dense native vegetation as well. The local species of Lomandra (Matrushes) are ideal and will provide an impenetrable barrier to toads. Native frogs just bounce right through! Killing Cane Toads can be a waste of time. Prevention is better than ‘cure’.