

MAKING A WILDLIFE FRIENDLY, NATIVE LANDSCAPED FROGPOND

by Robin K Villiers Brown

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Once upon a time there were frogs in our gardens. Now our frogs are disappearing. Many species of frogs have disappeared in the last twenty years, and even some of the more common ones are becoming scarce. And throughout Australia this problem has been aggravated by the fact that, as residential areas have increased, many ponds have been filled in and small streams or occasional watercourses have been turned into concrete drains. Moreover, many ponds and water areas are now sprayed against mosquitoes while gutters are sprayed with herbicide.

You can help frogs and help to increase their numbers by providing them with a pond to breed in (their food will be the insects in your garden, including mosquitoes). This pond can be something as cheap as a hard plastic baby bath or pond made from a tyre, or it can be a landscaped pond that will add to the beauty and value of your home.

However, as I found when I started to make the latter kind – one that was landscaped, and surrounded by local native plants, with a pond that was frog and wildlife friendly – your ability to do this can depend on a number of factors out of your control. (Such as, not being able to find out what plants are native to the area; or not being able to buy the plants; or finding that some black plastic that can be used as a pond liner is treated with a fungicide that will kill tadpoles.)

Therefore, this article is for all those who also want to make the next stage of frog pond – *one that is landscaped to suit the frogs, and with local native plants to help the flora and fauna in your area*. It includes some problems not mentioned elsewhere, and by relating my experiences I hope it will help others avoid problems (and perhaps others may have some ideas that I can use).

Building a frog pond

There are currently many guides that provide information on building a frog pond (see the “*Further information*” section) so I will just include a brief guide here.

Place the pond where it can get partial shade (75%) and make the pond at least 30cm deep. Make sure that there is a gently sloping bank on one side of the pond so that the young froglets can get out of the pond easily. Fill the pond with rainwater, or tapwater that has been in the sunlight for 5 to 7 days to remove the chlorine. Do not use detergent or other chemicals in, or near, the water. Do not site the pond near any Oleander bushes or pine trees or any other plants that have poisonous sap or leaves.

There are three ways you can make a pond. You can

- 1) buy a fibreglass pool
- 2) make a concrete pond. However, sometimes lime can leach from the concrete and make the water very alkaline.
- 3) make a pond using a black plastic liner. *However, if you are buying black plastic to make a pond be careful what you buy.* According to scientists at the Applied Ecology Research Group at the University of Canberra, some black plastic is treated with a fungicide that will not harm fish *but will kill tadpoles*. So make sure you buy the tadpole friendly liner.

Landscaping so the tadpoles can get out of the water

Once the tadpoles develop front legs they need to be able to climb out of the water, so there needs to be some sort of a slope or ramp in the pond they can easily climb or they can drown. So make a slope of rocks or put in a branch or log they can climb. Also try and have plants trailing in the water (but not toxic plants).

Landscaping around the pond

Like most creatures, frogs need food, shelter and a place to breed in; and many frogs also need it to be humid. Therefore, to entice frogs to your garden and to keep them safe and well, make sure you:

- 1) have water plants in the pond (but not too many). These are for the tadpoles to eat and to shelter under, and for a perch for the frogs. They are also important for oxygenating the water. However, make sure they don't spread too much and block the tadpoles' access to the surface.
- 2) Also allow a *thin* layer of leaves to settle on the bottom of the pond, for nitrification bacteria and for the tadpoles to browse.
- 3) have plants around the pond, including:
 - a) a mixture of plants of varying heights; including shrubs, an understory, ground cover and leaf litter. This will give the frogs shelter, and support a variety of insects that the frogs can feed on.
 - b) some plants that hang over the pond edge and into the water. This will give the maturing frogs some shelter and provide a food source for the tadpoles.
- 4) put rocks, logs and leaf litter around the pond for shelter.
- 5) consider putting the compost bin near the pond - the frogs can then eat any insects attracted to the bin.
- 6) water the plants around the pond in the evening, and water a little every day (i.e. instead of the once a week soaking that is recommended for watering plants). Frogs prefer a humid environment so their skin can keep moist, and they feed in the evening.

Plants for around the pond

I wanted to put *local* native plants around (and in) my pond. However, I have two major problems to overcome. They are that: a) there is no list of local native plants for my area, and b) after making a list of plants, I then found that most of these plants were not sold in nearby nurseries.

Useful & readily available native plants

The following native plants are available for sale in most nurseries and they are native to many Australian areas (in particular, they are native from Brisbane to Sydney and the ACT.)

- **Lomandra Longifolia.** This is both a very wildlife friendly plant and very easy to grow. The seeds are eaten by birds, and grown in clumps it provides a shelter area for small birds and wildlife. But even by itself it is a useful and easy garden plant.
- **Native Violet** (*Viola hederacea*). A good landscaping plant, and lovely to use with it's habit of spreading. Can grow around pavers (I have it between the stepping stones and around rocks).
- **Kangaroo Grass** (*Themeda Triandra*). Also a food source for birds and other wildlife (such as, Kangaroos and wallabies.)
- **Blenchum Cartilagineum** (*Gristle Fern*). What is a pond without ferns around it!
- **False Sarsaparilla** (*Hardenbergia Violacea*). Good for climbing over rocks and logs, so it also makes good hiding places.
- **River Tussock** (*Poa Labillardieri*). Although I was told these need full sun and water, they are growing successfully around my yard, and absolutely thriving around the pond in the shade of the bushes. They have also received very little water (OK sometimes I remember to water them when there's a drought - and they do like regular water. But lately the rains have been enough for them.) Also a good seed /food source for wildlife.
- *Carex appressa* (*Hook sedge/tall sedge*) is found around both Sydney and the ACT. Or see what sedge species are in your area.

If you live in Brisbane (or Queensland):

There are two active frog groups that can provide you with help and information; The Queensland Frog Society (www.qldfrogs.asn.au) and RANA (Restoring Australia's Native Amphibians (www.powerup.com.au/~ranafrog/main.html)). RANA has information on "*Ponds and Surround*" and the QFS

has a guide "*Frogs in your Garden*". The QFS also has coordinators for various suburbs in, and near, Brisbane and for the **Gold Coast** and **Central Queensland**.

Depending on where you live, you should be able to get a list of native plants for your area. You can get plant lists of *local* native plants for many areas in, or near, Brisbane from Greening Australia or other groups. The Queensland Frog Society also has put out a "*QFS Guide for Frog Pond Plants*" and a "*QFS Nursery Guide for Frog Friendly Plants*".

Also check out "IndigiScapes" demonstration gardens and nursery. The aim of IndigiScapes is to introduce local native plants into mainstream garden design. They also have a propagation group that propagates local plants not usually available in nurseries. IndigiScapes has suburban sized demonstration gardens with plants for sale. It has a coastal garden, scribbly gum garden, formal garden, wildlife attracting garden, grey gum garden and waterwise garden. A rainforest garden, wetland garden and creek vegetation garden are also currently being developed. A Fish, Frog and Reptile club also meets at IndigiScapes. You can buy plants and seek gardening or nature conservation advice there, or attend workshops and spotlight tours, or go on a walk through the bush (there is over a kilometre of walking trails through bushland). IndigiScapes is at Runnymede Road, Capalapa. Q. (ph (07) 3824 8611), and it is an initiative of the Redland Shire Council.

If you live in Sydney

There is an active frog group, the Frog and Tadpole study Group of NSW (FATS), and they have a list of "*Frog-friendly Native Pond & Bog Plants*". They also have links with a nursery that sells these plants. Contact FATS on 0419 249 728. Or www.fats.org.au

If you live in Victoria

There is a frog group, the Victorian Frog Group, who have an Adopt-a-frog program (ph (03) 9354 4718) or www.frogs.org.au)

If you live in South Australia

Contact Frog Watch South Australia on 08 8277 2851 or try the SA Frog Group on 08 8346 5797. Frogs of SA also has information and a census. WWW.environment.sa.gov.au/epa/frogcensus.

If you live in West Australia

Frogs of WA is at www.upnaway.com/~rdavis/frogs.htm or try Alcoa Frog Watch <http://203.30.234.166/frogwatch.pages.frames.html>

If you live in Tasmania

Frog Watch Tasmania is at 03 6233 7725. And Tasmania's extensive frog watch species site is at www.parks.tas.gov.au/wildlife/frogs/frogs.html

If you live in the Northern Territory

Frog Watch NT is at www.qantmnt.com/frogs

If there is no plant list for your area

See if there are any reserves or parks nearby, and then see if there is a plant list for the reserve/park (e.g. Landcare groups or National Parks will sometimes make plant lists for areas.) Ask either the local parks section of the council or the local Environment Centre if there's a group responsible for that area and/or a plant list for that area.

If you can't buy the plants

Try any nursery that advertises they sell native plants, and ask them to order in the plants. There is often only one way to encourage people to stock plants – and that is for them to know people want to buy them.

DANGERS/unfriendly activities

- If you want to have frogs in your garden don't use chemicals such as pesticides and some fertilisers or herbicides in your garden, as frogs absorb chemicals through their skin and may eat poisoned insects.
- Do not take frogs from anywhere else to put in your frog pond – you **MUST** wait for the frogs to come to you. A fungus has been identified as one of the reasons frogs are dying off, and it is always possible if you bring a frog into an area you may bring a disease or problem into the area that could

affect other frogs. There are also many environmental and ethical reasons why you should never remove *any* wildlife from its natural habitat.

- Don't take anything from the bush – even rocks or fallen logs, etc. These are probably already homes or shelters for various wildlife. If you want rocks or a log try garden suppliers (or if you are in a city try a tree lopper - but check where they got it from first).

For further information

Frogs in your Garden, Queensland Frog Society (www.qldfrogs.asn.au/fssum98.htm)

Ponds and Surrounds, RANA (www.powerup.com.au/~ranafrog/ponds.html).

Frog-friendly Native Pond & Bog Plants, The Frog and Tadpole study Group of NSW (FATS)

"Making a Backyard Pond", *Greenhouse Living*, Spring 2000, pp 28-29.

Also see if there is a local frog group near you. They should be able to help you.