

# The Principles of Frogscaping; Creating a Haven for Beneficial Animals

Frogs live in the air, land and water, hence creating a habitat for them will accommodate many other beneficial creatures, that will provide you with services such as natural pest control. A habitat has shelter, foraging, calling and breeding niches. A habitat garden endeavours to accommodate a diversity of frogs, birds, reptiles, mammals and most importantly insects in as many of these niches.

## Principle 1. Site Selection

Our frogs like many of our other animals have evolved with little, hence the majority of our frogs are:

- Brown
- Have claws
- Do not like a lot of water, only at a certain time

## Know your frogs

- Checkout the WA Museum website [www.museum.wa.gov.au/frogwatch](http://www.museum.wa.gov.au/frogwatch)

## Sunlight

- Winter - Require minimum half to three quarters day sunlight for tadpole development
- Summer - Morning sun to a dappled sun. Protect westerly aspect by planting shrubs

## Downpipes

- Plumbing a gutter downpipe allows rainfall to flush and fill the pond and the bog area.

## Neighbours/Breeding time

- When frogs call they call all night and if it's too close to a neighbours window, it can lead to problems.



## Principle 2. Pond Design & materials

Incorporating a overflow component that holds water during winter is called a bog. It mimics the Winter Wetlands, and in fact we have a higher diversity of frogs and associated plants and animals in these regimes than in permanent wetlands. Our Moaning frogs and ground frogs can only exist in this situation (fig. 1).

There are many materials available and this will determined by your available resources, here are some:

- Fibreglass
- Pond liner (UV Stabilized plastic or PVC 0.5mm liner)
- Concrete
- Combination (fibreglass/pond liner or pond liner/concrete)
- Specifications: to keep to balanced water environment that will provide a buffer between the water becoming too hot in the summer and too cold in the water, the following specifications are recommended (can vary according to site characteristics i.e. vegetation, slope, mean temperate, mean rainfall:
  - Depth increases in relation to surface area
  - 2.3-9.3m<sup>2</sup> = 400mm (min depth)
  - 9.3-18.6m<sup>2</sup> = 600mm (min depth)
  - 20m<sup>2</sup> = 750mm (min depth)

## Principle 3. Landscaping

- Aquatic plants (Refer Plants for the Frog Friendly Garden List)
- Terrestrial plants

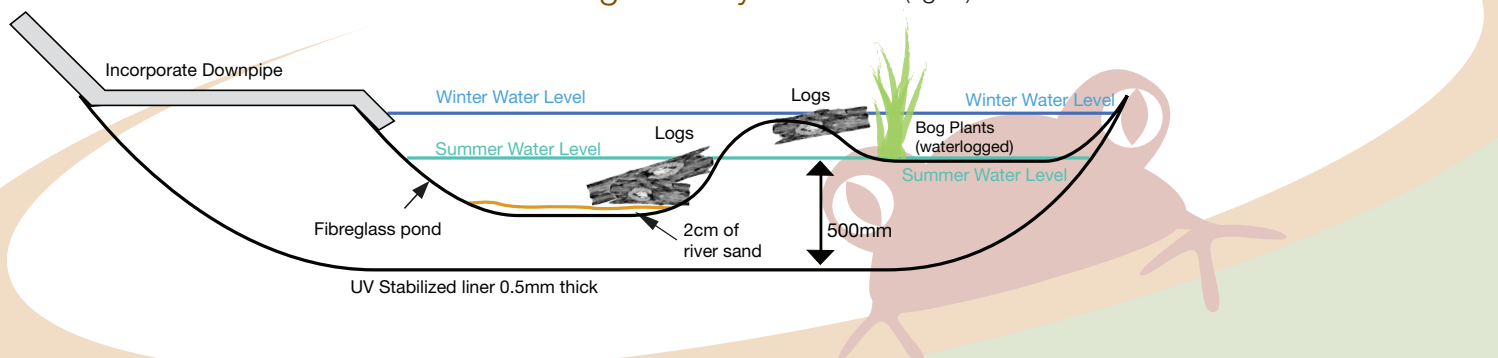
### Plant according to soil type

Small insectivorous birds (pardolates, wrens, robins, grey fantails), require a complex structure of understorey, middle storey and upperstorey plants. Add prickly plants and a small yellow, blue, indigo and violet flowering colour. Refrain from planting large flowering high nectar producing Grevillea's and Bottle Brushes, that attract european bees and aggressive nectarvorous birds (refer Bird & Butterfly Guide).

### Logs/rocks

Logs provide basking, shelter, perching and foraging sites. Place these partially buried horizontally and vertically around your garden. A log branch extending out into your water allows birds to preen themselves, whilst getting a vital drink, especially during the marginal times of the season.

Cross Section of Frog Friendly Garden (fig. 1)



## Principle 4. Pond Management

### Mosquito control

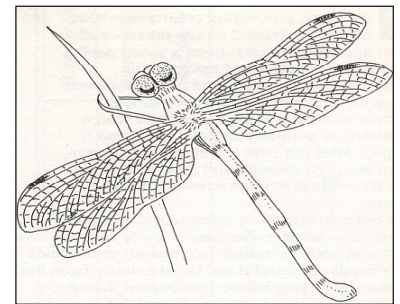
- Adequate sunlight
- Native Fish (Pygmy Perch)
- Good water quality

### Algae

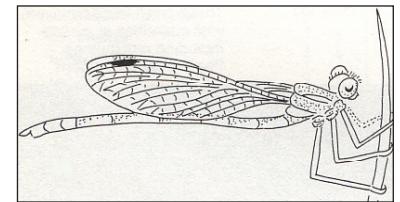
- Don't feed your fish
- Add native foliage (Eucalypts, Paperbarks) to your pond. They add tannins which are a natural algae deterrent
- Add algae grazers i.e. gilgies, snails, fish

### Other visitors

- along with birds other animals will visit. Dragon flies, damsel flies predate on mosquitoes, whilst native bees/wasps/moths etc are beneficial pollinators and provide a food source for those insectivorous birds.



Adult dragonflies are colourful and have spectacular markings



Winged Damselfly adult

## Principle 5. Other

### Useful websites

- Western Australian Museum
- Frogs Australia Network
- Grow Us a Home
- Lullfitz Nursery
- Zanthorrea Nursery
- Wildflower Society
- Flora for Fauna (Limited information. Mostly general generic, not site specific)
- <http://www.spinelesswonders.com.au/>



## Bird Friendly Garden Plant List

When selecting plants flower colour is important, insects generally see the right end of the colour spectrum (ROYGBIV- Red, Orange, Yellow, Green, Blue, Indigo, Violet). Small birds need habitat where they can roost and forage for food whilst amongst shelter. Small birds are most vulnerable to predators when at the fledgling stage. Approximately 70% of predation occurs on fledglings, from predators such as Ravens, magpies, butcher birds and kookaburras. Hence, it is important to select plants that are prickly and provide shelter to allow protection from such occurrences.

### Butterfly attracting plants

- Seek nectar as a food source, generally like bright flowers (white, yellow, purple, red).
- They seek mineralized water from river banks, mud puddles, decomposing faecal matter from birds and other animals.
- Setup a bird bath or frog friendly garden.

**Recommended Plants:** Acacia, Agonis, Chorizema, Conostylis, Hemiandra, Hibertia, Daviesia, Grevillea, Hardenbergia, Kennedia, Pimelea, Verticordia.

### Insect attracting plants to accommodate small insectivorous birds

(Wrens, Robins, Warblers, Thornbills, Whistlers). **Recommended Plants:**

Acacia, Adenanthos, Banksia, Boronia, Calytrix, Casuarina, Chorizema, Callistemon, Dampiera, Darwinia, Dryandra, Eremaea, Eremophila, Eucalyptus, Hakea, Hemiandra, Hypocalymma, Isopogon, Jacksonia, Kennedia, Kunzea, Lechenaultia, Leptospermum, Leucophyta, Melaleuca, Mirbelia, Pattersonia, Pimelea, Pultenaea, Olearia, Scaevola, Scholtzia, Verticordia.

### Nectarvore attracting plants

**Recommended Plants:** Adenanthos, Alyogyne, Anigozanthos, Banksia, Callistemon, Correa, Darwinia, Dryandra, Eucalyptus, Eremophila, Grevillea, Hakea, Kennedia, Templetonia.

### Frugivore (seed eaters eg. Bronzewing and crested pigeons) attracting plants

Grasses are the main plants, along with these: Acacia, Banksia, Billardiera, Calytrix, Dianella, Eucalyptus, Isolepis, Juncus, Lomandra, Sollya.

## South West Garden Centre Guide

### Retail Nurseries (Open 7 Days)

Australian Native Nurseries Group  
141 King Rd, Oakford  
ph: (08) 9525 1324

Boyanup Botanical  
Lot 12 South Western Hwy, Boyanup WA 6237  
ph: (08) 9731 5470

Carramar Coastal Nursery  
Lot 301 Mandurah Rd Secret Harbour WA 6173  
ph: (08) 9524 1227

Grasstrees Australia  
670 Welshpool Rd Wattle Grove WA 6107  
ph: (08) 9359 1443

Lullfitz Nursery  
Thomas Road, Oak Ford  
Caporn St Wanneroo WA 6065  
ph: (08) 9405 1607  
www.lullfitz.com.au

Margaret River Nursery & Irrigation  
48 Stewart St Margaret River WA 6285  
ph: (08) 9757 2691

Zanthorrea Nursery  
155 Watsonia Rd Maida Vale WA 6057  
ph: (08) 9454 6260 Nurseries  
www.zanthorrea.com.au

### Community Nurseries (Not for Profit, Not Open Weekends)

APACE Revegetation Nursery  
1 Johannah St, North Fremantle  
ph: (08) 9336 1262

Bridgetown Community Nursery  
Natalie Krueser ph: (08) 9761 1312

Geographe Community Landcare Nursery  
ph: 0409 376 976  
or BDEC ph: (08) 9754 2049

Leschenault Community Nursery  
Johnston Rd, Bunbury  
ph: (08) 9791 4670, 0417 181 131