

Freshwater Fishes of the Sydney Region



Native Fish

Small Fish

These small fish are suitable for use as aquarium fish and they are also suitable as a pond fish.



Pacific Blue-eye
Pseudomugil signifer
size: 3-5cm Tadpole Friendly*
Common



Australian Smelt
Retropinna semoni
size: 5-6cm Tadpole Friendly
Common



Glass Perchlet
Ambassis marianus
size: 6cm
Uncommon



Mountain Jollytail
Galaxias olidus
size: 6-8cm
Localised



Dwarf Flathead Gudgeon
Philypnodon sp.
Size: 3.5-4cm
Common

Gudgeons

The gudgeons are suitable for use as aquarium fish as well as making a suitable pond fish.



Empire Gudgeon
Hypseleotris compressa
size: to 12cm
Abundant



Firetail Gudgeon
Hypseleotris galii
size: 4-5cm Tadpole Friendly
Locally Common



Striped Gudgeon
Gobiomorphus australis
size: 12cm
Common



Cox's Gudgeon
Gobiomorphus coxii
size: 15cm
Common



Flathead Gudgeon
Philypnodon grandiceps
size: 8cm
Common

Medium Fish

The medium fish are suitable for use in larger aquaria and ponds.



Bullrout
Notesthes robusta
size: 20cm Spines
Common but cryptic



Climbing Jollytail
Galaxias brevipinnis
size: 15cm
Localised



Common Jollytail
Galaxias maculatus
size: 10cm
Localised



Nepean Herring
Potamalosa richmondia
size: 15cm
Abundant



Freshwater Catfish
Tandanus tandanus
size: 45cm Spines
Rare / Translocated

Large Fish

The large fish are not well suited to use as either aquarium or garden pond fish. Some are suitable for recreational angling (fishing licence required).



Short Finned Eel
Anguilla australis
Size: to 90cm
Uncommon / possibly declining



Marbled Eel / Long Finned Eel
Anguilla reinhardtii
Size: 100cm
Common



Macquarie Perch
Macquaria australasica
size: 20-25cm Endangered
Rare / Localised



Australian Bass
Macquaria novemaculeata
size: to 60cm
Common



Freshwater Mullet
Myxus petardi
size: 40cm
Uncommon

Introduced / Pest Fish

These fish represent major threats to native fish & aquatic wildlife. They should not be spread, or returned to any water bodies, and keeping them should be avoided.



Plague Minnow, Gambusia
Gambusia holbrooki
size: 3.5-6cm Noxious



Carp
Cyprinus carpio
size: 30-40cm Noxious



Redfin Perch
Perca fluviatilis
size: 40-45cm



Wild Goldfish
Carassius auratus
size: 10-20cm



Spotted Livebearer
Phalloceros caudimaculatus reticulatus
size: 3cm Noxious

Key : The details presented are those that are most typical for the fish found in the greater Sydney area. (See over for native fish pond guidelines)
Size is that of a typical adult fish. Young fish will be smaller than indicated and older adult specimens can be somewhat larger.
Tadpole Friendly = fish does not actively prey on tadpoles (* = not ideal, will prey on smaller tadpoles), Endangered = fish is protected & must be returned if caught. Spines = Fish has nasty spines - care needed when handling. Noxious = a declared noxious fish in NSW (see www.fisheries.nsw.gov.au)



Images courtesy of : Rudie Kuitert, Neil Armstrong, Andrew Lo, Mathew Stanton, Dan Nehl, & Mark Abell

www.fisheries.nsw.gov.au
www.nationalparks.nsw.gov.au
www.angfa-nsw.org

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Guidelines for a Native Fish Pond

A natural pond can offer many benefits. It is visually appealing, can be cool & relaxing, and provides a watering point for the local wildlife.

Before you start...

Before actual construction begins please take a little time to consider the purpose that you have in mind for your particular pond. Too often the comfort and safety of the inhabitants is the last thing rather than the first to be evaluated.

There are any number of reasonably inexpensive books available on techniques of construction as well as pond kits & contractors out there with experience in the field, but many of us prefer to do it ourselves. So below are a few points to consider in the planning stages.

Location...

- Site the pond away from existing large trees to avoid root problems and minimise the problem of leaves falling in, decaying and causing poor water quality.
- Also it should not be sited in full sun (can overheat on hot days), but in a semi shaded location with good light, but protected from the hot mid afternoon sun.
- If keeping fish is an important purpose, try to make the pond as large and as deep as practical to minimise temperature extremes in the pond - check with your local council as to the maximum depth allowed (deeper ponds may need to be fenced).

Design Features...

- Remember when designing your pond to consider water supply and drainage as well as electricity supply for lights, pumps and filters.
- The pond should have an overflow area (a place a little below the rest of the pond height) included. This is to control where the water overflows to (either through heavy rain or from overfilling).
- All overflows should be screened to prevent escape of plants, snails, fish and eggs during heavy rains and water additions. As well as keeping your fish in the pond this serves to protect the local waterways from any potential escapes (especially important if non local fish are in the pond).

Preparation...

- Fish are very sensitive to contaminants so new ponds should be rinsed out before use. Concrete ponds need "curing" with a combination of filling, scrubbing and painting with vinegar as well as several water changes.
- If filling with tap water remember to allow time for the chlorine & chloramine in the water to dissipate or use a commercial chlorine neutraliser from the pet shop.
- Before adding plants and fish ensure that all equipment such as filters, fountains and waterfalls are working satisfactorily.
- Allow at least a week for plants to settle in and begin growing before adding fish. If possible remove all obviously dead leaves as they will add decay and add unwanted excess nutrients to the water.

Plants...

- Native plant nurseries & water garden nurseries will have a range of suitable native plants for planting in and around the pond.
- Allowing plenty of shallows around the edges will allow inclusion of a variety of moisture-loving marginal plants such as reeds and sedges and ground covers. These improve the appearance, provide shelter for inhabitants and aid water quality.

- Consider having all your in-pond plants in containers as this will greatly facilitate their removal during routine maintenance such as leaf & litter removal and reduces stress and damage to the plants.
- Containers with emergent plants can get top heavy, and steps should be taken to prevent falling over.
- Planting around the outside of the pond will provide useful additional shade and shelter, which helps to moderate temperature and algae.

Fish...

- The most suitable and readily obtainable Sydney area fish are :- Pacific Blue-Eyes, Firetail Gudgeons, Empire Gudgeons, & Smelt. The other pond fish indicated on the poster may be harder to find.
- Fish can be most readily obtained from aquarium shops, some native plant nurseries & water garden suppliers.
- When introducing your fish remember to float the bags or buckets to equalise the temperature and add frequent small amounts of pond water to adjust other water parameters before gently releasing the fish.
- Do not feed your fish initially for 2 days to allow them to settle in and become active and hungry – then only feed them once each day with as much as they can consume in 2-3 minutes. More pet fish are killed by over-feeding than any other cause.

Frogs...

- If you intend to attract frogs around the pond, then the pond should be sited a little away from houses - frogs can make a bit of noise on warm evenings.
- The pond should have a gently sloping side to allow non climbing frogs to access the pond.
- Rocks & slabs overhanging the edge can stop frogs from being able to exit, so some gaps may be needed.
- Plenty of plants should be added to and around the pond - to provide shelter for frogs & tadpoles.
- All fish will to a certain extent prey on very small tadpoles. The fish on the poster that are marked as "Tadpole Friendly" (Pacific Blue-Eye, Australian Smelt, & Firetail Gudgeon) are more likely to leave tadpoles alone & will not prey on larger tadpoles.
- You will not be able to keep any tadpoles if there are any Plague Minnows (Gambusia) in the pond. These fish are a major threat to native frog and fish populations.
- Further information on frogs & ponds can be obtained from the FATS group (Frog And Tadpole Study Group). www.fats.org.au

Maintenance...

In addition to feeding any fish and regular cleaning of any filters, there are a number of other tasks that will need to be done periodically.

The pond will need to be periodically cleaned of dead leaves & fallen vegetation. This "mulm" can simply be scooped out by hand - it makes good compost. The frequency of cleaning will vary depending on time of year and the amount of vegetation falling into the water. At the very least it should be done at the start of spring prior to the water temperatures starting to rise. The increased biological activity from the rotting vegetation & warmer temperatures is a major cause of fish losses at this time of year.

Periodically the water in the pond will need to be topped up. This can be done using a normal garden hose, but due to the chlorine levels in tap water no more than 10-20% should be added at any time.

Further advice on ponds, aquaria and fishkeeping is available from your local aquarium shop, water garden supplier, books, the internet and local aquarium societies.