Ponds in the Backyard Habitat

by Craig Watson

All wildlife drink water. If you provide them with water, they will come to it. In addition, numerous aquatic and amphibious species will never stay around your house unless you provide them with a permanent source of water.

This makes a pond essential to a well-planned backyard wildlife habitat. Fortunately, ponds are fairly easy to construct, using a wide variety of styles and techniques suited to your particular situation.

Water Table Ponds

If you live in an area where the water table is close to the ground surface, you can simply dig a hole and let it fill with water. One precaution—if the water table fluctuates throughout the year, your pond may dry up during periods of drought. A seasonal pond, while supporting certain wildlife species, will not attract as many as a permanent pond, and will not provide water during periods of drought.

Preformed Ponds

Ponds are available in preformed shapes, usually constructed using fiberglass or PVC. These ponds can be placed above ground or sunk into the ground.

The main advantage is that they are rugged. The disadvantage is that they limit the creativity in designing a pond. This is somewhat overcome by the fact that more and more shapes and sizes are becoming available as interest in backyard pond increases.

Cement Ponds

A cement pond is fairly simple to construct. After digging the pond, the inside is lined with cement to seal it. The cement should be at least four inches thick and reinforced with chicken wire or hardware cloth.

The advantages of cement are that design options are almost unlimited and they are durable. Disadvantages are that they are permanent (that is, they are hard to remove if you change your mind!), and they can be expensive.

Lined Ponds

Several companies in the United States manufacture pond liners from materials such as PVC and rubber. These are flexible, conforming to the hole you
dig, which, like cement, allows for almost unlimited design creativity. After the pond is dug, the liner is stretched across the top, and filled with water. The main disadvantage is that the liner can be punctured. In my pond, a Barred Owl repeatedly punctured the liner with its talons as it attempted to catch fish. A thin layer of cement on top of the liner solved the problem.

Size

A backyard habitat pond doesn't have to be large if supplying a source of drinking water is the goal. Often people think that they can't have a pond because of limited space, but a three-foot-diameter, six-inch-deep pond will attract a lot of animals. However, if you wish to provide a place for aquatic wildlife to live, make the pond as large as you can. In addition to size, a pond with varying depths will be used by a wider variety of wildlife.

What Will You See?

Any animals that you attract to your backyard habitat will use the pond to drink from. If you provide a shallow area, the birds will use it as a bath. In addition, depending on your proximity to natural bodies of water, you may get a number of aquatic species that will set up home in the pond. Frogs are easily attracted, and toads and salamanders may use the pond for reproduction. If you are close to a river or other body of water, you may have a turtle come in. In addition to these large inhabitants, you will get a myriad of aquatic insects and invertebrates in the pond, making for interesting study for the backyard naturalist.

Water snakes may be attracted to your pond, too. The poisonous water moccasin, or cottonmouth, is rarely seen in backyard ponds. Most water snakes belong to the genus Natrix, and are quite harmless. If you are interested, or concerned, get a book on snake identification.

A Word on Fish

In keeping with the backyard habitat theme, native fish should be used whenever possible. However, they are naturally camouflaged and difficult to see from the surface. Goldfish or Koi Carp can be added if you want to see brightly colored fish in your pond.

Two things to remember:

1. Brightly colored fish will be extremely vulnerable to predators, especially in a small, shallow pond, so don't be shocked if your fish start disappearing.
2. If there is any chance of the fish escaping into a natural water body, don't use exotics of any kind.

Where to Put the Pond

If you are digging a water table pond, then you will need to put your pond in a low area of your property where the water table is closest to the ground surface (to save yourself a lot of digging). If you are going to seal the pond with cement, a preformed liner, or a flexible liner, you may want to look for a higher spot, to have less chance of the pond overflowing during a heavy rain.

Many pond books will say that the pond must be in a place that receives a good amount of direct sunlight, as many of the plants will only bloom in the sun.

However, endless options exist for planting a pond and its surrounding area. A pond in the shade, surrounded by delicate ferns, can be very attractive.

Ponds can be incorporated into almost any landscape, so be creative. They can make a wonderful centerpiece to your yard, or a secluded oasis underneath some shrubs.

Pumps and Filters

Though it is not necessary for the pond to function, moving water creates a pleasing effect in the backyard habitat. Fountains and waterfalls will attract not only people, but many birds and other wildlife that enjoy “playing” in the flowing water. Filters can be attached to the intake end of the pump and will assist in maintaining the water quality of the pond.

However, simplicity and freedom of design are often lost when pumps are used, since now the pond must be located near an electrical source. In addition, the cost of the pump and the electricity to power it must be added to the total cost of the pond. A well-planted pond, with just a few fish, will become a balanced system on its own, and water quality will only be a problem if the fish are overfished.

Craig Watson is Multi-County Aquaculture Extension Agent for Hillsborough County.

Additional Reading

In addition to books, many of the companies that sell pond plants and supplies have information on design and construction:

Pond Liners:
Yonker Industries
200 Sheridan Springs Road
Lake Geneva WI 53147
414/248-6232

Reef Industries
P.O. Box 750245
Houston, TX 77275-0245
800/231-2417

Sterling Publishing Company
2460 North Euclid Ave.
Upland, CA 91786-1199
714/982-2425

A Guide to Water Gardening
Charles Scribner's Sons
New York, NY 10016
$7.95

Additional reading is highly recommended before you start digging. Planning and Planting a Native Plant Yard has illustrated directions for putting in a concrete pond. Buy one at your chapter meeting, or order by sending a check for $3.25 (if you’re not a member of FNPS) or $2.75 (if you are) to FNPS, P.O. 680008, Orlando, Fl 32868. Price includes shipping.

Here is a sampling of other available books:

- Garden Pools and Fountains
  Ortho Books
  Box 5047
  San Ramon, CA 94583
  $7.95

- A Guide to Water Gardening
  Charles Scribner's Sons
  New York, NY 10016
  $7.95

- Ponds and Water Gardens
  Sterling Publishing Company
  Two Park Avenue
  New York, NY 10016
  $6.95

- Water Garden Supply (plants, pumps, liners, etc.):
  Slocum Water Gardens
  1101 Cypress Gardens Blvd.
  Winter Haven, FL 33880-6099
  813/293-7151

- Van Ness Water Gardens
  2460 North Euclid Ave.
  Upland, CA 91786-1199
  714/982-2425