



# The Raleigh Aquarium Society

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## June 5th, 2008

*Next Meeting: Thursday @7:30pm July 5th, 2008.*

Meetings are held on the first Thursday of each month at the [North Carolina State University College of Veterinary Medicine](#) located at [4700 Hillsborough Street in Raleigh](#). Visitors are welcome! Snacks and light refreshments are provided. A raffle of fish and fish related items follow the meeting. Due to Security Issues, NCSU has required that the doors going into the downstairs lobby remain locked. Please be on time, as we will have a designated person standing by the door to let you in. If you are late, you may try knocking or call Linda Twaddle at 919-880-3782 or John Patterson at 919-264-4011.

## Meeting Agenda

### The BIG Picture: How Much Flow Does a River Need?

As the demand for water continues to grow, Rivers are getting squeezed between the needs of cities, industry, lawns, crops, and nature. Besides keeping fish wet and carrying our wastes to the sea, what exactly does flow do for a river, and what happens when we alter a river's natural flow pattern? Environmental biologist and RAS member, Gerald Pottern will discuss how the balance between a river's flow and sediment determines its size, shape, and biological features, why various flows at the right time - including droughts and floods - are vital to the river's fish, bugs, plants, and water quality.

We'll also be finalizing plans for our 5th of July party and/or collecting trip. Don't forget those raffle donations. We're sure to have another super raffle.

**ARTICLE INFORMATION:****Author:** George White**Title:** Natural Aquatic Environments**Summary:** Small water features are interesting additions to the summer garden. Fish such as killifish or cichlids can be kept in them.**Contact for editing purposes:****email:** Vice-President NancyJohnson [natahoausual@worldnet.att.net](mailto:natahoausual@worldnet.att.net)**Date first published:****Publication:** *Delta Tale*, Potomac Valley AquariumSociety: <http://www.pvas.com>**Reprinted from Aquarticles:****ARTICLE USE:****Internet publication (club or non-profit web site):**1. **Credit** author, original publication, and Aquarticles.2. **Link** to <http://www.aquarticles.com> and original website if applicable.3. **Advise Aquarticles****Printed publication:****Mail two printed copies to:**

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## Natural Aquatic Environments

by George White

*From Delta Tales, Potomac Valley Aquarium Society*

Aquarticles

Now is a fine time to plan your yard and garden. Taking care of the yard can be one of life's biggest pleasures if you know how to go about it properly. And, you can make your spouse very happy. The grass, trees, and shrubs are the least important. What counts are the fish! A carefully planned yard decorating scheme can include several miniponds or tastefully laidout barrels or other containers for cultivating fish. (Incidentally, such a decorator arrangement provides excellent cover for secretly cultivating live fish foods such as the mosquito larva suggested by Mr.. Anonymous in a Delta Tale article about a year ago. (The gist of his article was that if you let a body of water stand undisturbed, the mother mosquitoes will find it and lay eggs for you. You net larva out to feed your fish whenever you please. Any accidental escapees are not a problem - they are potential future mothers.)

The key to all of this is careful planning to avoid making your yard look cluttered. (And, if there are small children nearby, be sure it is safe.) A number of inexpensive items available at hardware and gardening supply stores can be used to create lovely "ponds" or a series of ponds. Flowers and other decorative plants placed around the water containers add a touch of class.

There are many things you can convert into "ponds" with a little imagination. For examples, four sets of items that can be used in decorating your yard are:

1. You can order a fancy and interestingly shaped pond, a reliable pond pump(s) and filter(s) from one of the local aquarium shops. This can be the centerpiece of your fine yard decorative layout. A local aquarium shop can also provide you with excellent advice on managing a pond. This club

bulletin often publishes the names of local shops that cooperate with us on club shows and other events. One of these stores would be a good place to start.

2. Sawedoff wooden whiskey barrels can provide imaginative and lovely minihabitats. These are sometimes available at gardening shops or from special garden supply catalogs. Unless the fish you might keep in them like acidic water (and a touch of whiskey?), the barrels should be lined with heavy duty garden trash bags or a commercial pond liner like the ones from Tetra. First, put the bag or liner in the barrel, then fill it about halfway with water. Wrap the edges of the bag over the side of the barrel. Tie it down with a nice looking rope, preferably marine quality. If necessary, trim off the excess of the bag hanging down over the side of the barrel below the rope.

3. A series of small ponds can be made using cement mixing tubs, which are usually 2 x 3 or 3 x 3 feet and are available from hardware or construction supply stores. These trays come in a variety of sizes, are sturdy and are usually brown or dark green. They can be buried partially in the ground and surrounded with flat or other nice rocks. A friend in Germany created a real masterpiece using a number of these tubs to form a cascading stream 15 feet (3 meters) long. His yard sloped slightly and he built up mounds of rock and soil to further elevate several of the tubs. Rocks and carefully chosen plants along the edge made his "stream" a wonderful addition to his yard. A hidden pond pump and water feeder line kept the water flowing. As you might have guessed, the fish he kept in his stream were running water species similar to American darters. But, any number of species would have flourished there.

4. If you really want to be creative and plan to keep your pond or ponds for a long time, you could consider using a commercial pond liner like the ones from Tetra. These can be shaped to fit into irregular or fancy ponds or streams you have dug into your yard. These should be lined along the edge with rocks to keep them in place.

Many species of fish benefit from a summer vacation in the great outdoors (assuming that the ponds are relatively safe from cats, raccoons and other potential piscivores.) Some species take on their best natural colors when kept outside. One adventure is to release the fry of colorful, fast growing species such as Killifish or Cichlids in the spring and bring them back inside in the fall. It can be interesting to compare them with similar age fish kept inside during the spring and summer.

A large pond may also provide adequate space for some species to display more of their natural behavioral patterns than they can in an aquarium. One interesting idea is to set up a community of highly territorial fish such as some of the small Central American Cichlids. Their political wrangling over territories and rocks can be fun to observe. (Fish are my favorite "politicians")

In summary, these doityourself outdoors streams and ponds provide excellent opportunities for creative gardening. Some very interesting plants can be obtained from aquatic garden specialists such as Lilly Ponds in Lillyponds, Maryland or ordered through your local aquarium store. Your fish will love the natural touch. And, the plants will add credibility to the stories you tell your spouse, parents, landlord, neighbors, or other interested parties about your efforts to spruce up your yard.

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# Trading Post



# Monthly Web Links

**Raleigh Aquarium Society Forum** on Yahoo Groups  
<http://groups.yahoo.com/group/raleighaquariumsociety/>

**Potomac Valley Aquarium Society** in the Washington D.C. area <http://www.pvas.com/>

**Atlanta Area Aquarium Association** in Atlanta, Georgia <http://www.atlantaaquarium.com/>

**Carolina Fish Talk** <http://www.carolinafishtalk.com/>

**Charlotte Area Aquarists Society** [www.aquacharlotte.net](http://www.aquacharlotte.net)

**Marine Aquarium Society of the Carolinas** <http://masotc.net/>

**North Carolina Koi & Watergarden Society** <http://www.nckws.com/>

**Carolina Aquatic Plant Enthusiasts** <http://www.ncaquaticplants.org/>

**Aquatic Gardeners Association** <http://www.aquatic-gardeners.org/>

**KingFish Services** <http://www.kingfishservices.net/>



# Club Sponsors

*(The following businesses give RAS members a discount on purchases)  
You may be asked to show your RAS membership card*

**[Aquatica](#)** 5533 NC Hwy 42-West, A-16, Garner (10%) **919.661.7790**

**[Critter Country Inc](#)** 14 Technology Drive, Garner (10%) **919.772.3761**

**[Down Under, Salt Water Fish & Corals](#)** 1543 US Highway 70 East in Garner. 20% on livestock, 15% on dry goods) **919.662.8820**

**[Fins, Furs & Feathers Pet Center](#)** 303 S. Horner Boulevard, Sanford, NC 27330 (10% on everything except tanks) **919.718.0850**

**[Fish Pros](#)** 5655 Western Boulevard, Suite A, Raleigh 27606 (10%) **919.233.1122**

**[Fish World](#)** 2205 Westinghouse Blvd., Suite 109, Suite 109, Raleigh (10%) **919.872.1228**

**[Pet Mania](#)** 7901 Falls of Neuse Rd #125, Raleigh (10%) **919.676.3225**

**[Pet Paradise](#)** 9101-141 Leesville Road, Raleigh (10%) **919.848.8881**

**[The Pet Pad](#)** 1347 Kildaire Farm Road, Cary, (10%) **919.481.6614**

**[Triangle Tropical Fish](#)** 3600 N. Duke St. Suite #36 Durham (10% excluding aquariums and stands) **919.479.0088**

Please contact John Jankowski at [raleighaquariumsociety@yahoo.com](mailto:raleighaquariumsociety@yahoo.com) if you are an active member of the Raleigh Aquarium Society and do not have an up to date membership card. Membership cards can be picked up at any meeting.

# Raleigh Aquarium Society

## Application for Membership

Membership privileges include:

- Ability to post items in trading post section of monthly newsletter
- A discount card good at participating local pet stores
- All club discounts on club functions
- Education from the most knowledgeable aquarium experts in NC
- Yearly Membership - \$15.00 (includes spouse and children)

(Membership dues run from March 1st each year. New members joining any other time will be pro-rated at \$3 + \$1 for each month remaining in the year.)

Name(s): \_\_\_\_\_

Date to begin membership: \_\_\_\_/\_\_\_\_/\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ (2) (\_\_\_\_) \_\_\_\_\_

Email Address: \_\_\_\_\_

New Membership

Renewal Membership

Mail to:

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PO Box 31564  
Raleigh, NC 27612-1564