



London Aquaria Society

www.londonaquariasociety.com

BELOW THE WATERLINE

BELOW THE WATERLINE

This Month's Speaker

Brian Glazier
will do a talk on breeding and raising Killifish.



Betta History

bettatalk.com/betta_history.htm

If you think you are the first betta nut to walk the face of the earth, think again!

Betta Madness has been around for a long time. It started in Siam some 150 years ago. The Siamese people would fight bettas, and hence the first form of betta madness was born: People would wager everything they owned, even their families! These betta fights were popular, so much so that the King of Siam decided to license them and to collect on them as well. Bettas that were fought back then looked nothing like the ones on this website. For that matter, bettas were originally boring, dull looking little things that would hang out in ponds, ditches, sluggish streams and rice paddies in Thailand and Malaysia.

The original wild bettas have a dirty greenish brown color and fins just big enough to keep them swimming. No excess baggage. But, because of the Betta Madness, people soon became slaves to the little finned creatures and started wor-

shipping them, devoting their lives to turn the ugly ducklings into beautiful swans.

OK, back to the King of Siam. In 1840, he gave several of his prized fighting fish to a man who then gave them to Dr. Theodor Cantor, who was a doctor in the Bengal medical service. Nine years later, Theodor publishes an article in which he describes those fighting fish and names them: *Macropodus Pugnax*. Needless to say he had contracted the virus :), unbeknownst to him.

In 1909, our finned friends change names when Mr. Tate Regan pointed out that there were already a specie

called *Macropodus Pugnax*, hence the need for a new name. Regan came up with *Betta Splendens*.

Why "Betta" ? It is believed that there was a warrior-like tribe of people called "Bettah". So I guess in a way *Betta Splendens* could be translated into : Splendid (beautiful) warrior. You have to admit the name is perfect :).

The first bettas were introduced into Germany in 1896. From there, bettas decided to go for the "American Dream" and moved to the US starting 1910.

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Upcoming Events

January 11, 2011: Zena will do a talk on Sea Horses.

February 8, 2011: Brian Glazier will do a talk on breeding and raising Killifish.

March 8, 2011: Udo Rohmann will speak on the Hamburg Mattenfilter (HMF), filtering system.

April 12, 2011: To be announced.

May 1, 2011: Spring Auction

May 10, 2011: To be announced.

June 14, 2011: Elections

July/August: Summer break

September 13, 2011: To be announced

September 25, 2011: Fall Show & Auction

October 11, 2011: To be announced.

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President's Message

Happy Valentines Day to one and all.

This month's guest speaker will be Brian Glazier doing a talk about killie fish. The raising and breeding and the proper care for this interesting species of fish. Brian and Susan always put on an interesting program. I trust this will be very interesting for all.

Last month's meeting we had Zena Campbell (Ng) doing a presentation about seahorses. It seemed everybody really enjoyed the evening. She also brought seahorses for all to see, the different sizes and we even got educated on seahorse poop. Thank you for a great job Zena.

The CARES program has taken off quite well so far with nine people filling in their paperwork. Please submit it to Annette as she can get it forwarded to the powers to be.

The jar show for this month will be Bettas, Gouramis and Paradise Fish with the open class and as usual there is the plant class. As always we will have the auction. Last month we had almost a hundred items up for auction and a lot of people got some good deals. Please bring out your extra fish and plants for the auction. Who knows you may pick up a bargain or two.

Have a great Valentines Day and be nice to your honey.

Ron Bishop

The **London Aquaria Society** is a non-profit organization, established in **June 1956**. Its main objective is to promote interest in breeding and raising tropical fish and also to provide a means through which hobbyists may exchange ideas, gain information and display their fish, sharing them in the public in the London Area.

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Betta History

cont'd from front page



(pictured left: Betta smaragdina - wild type)

Yes my friends, the Betta Invasion had started. And now they are everywhere, (even in my coffee maker!!). Maybe I have been watching too much X-files, but where was Moulder while all this was happening?'

Are Bettas Extra Terrestrials???



It was not until 1927 that the first brightly colored, long finned bettas arrived in the US. They were a shipment sent to Mr. Frank Locke of San Fransisco. He opened his package, and behold, there were the beautiful bettas, and behold square, there were some light bodied, red finned bettas as well!! He named them Betta Cambodia, probably thinking it was another specie of bettas. Little did he know. It was in fact simply a new color mutation, the beginning of a massive explosion of colors in betta world. From clear to jet black and everything in between, this is the most fun fish to breed and work with, hence the Betta Bug is so easily contracted, because there is always another color, a new pattern you don't own and just gotta have... A very dangerous disease indeed.

After about 80 years of work with betta's fascinating genetics, breeders across the world (US and Japan especially), have developed many many strains. See photos of my strains, more photos of my bettas or Betta Colors.

Breeders all over the world are actively working on new strains, or on improving and keeping alive old strains. Betta Clubs such as the IBC (International Betta Congress) allow breeders to learn, share and show their best work and buy/sell bettas, competing against each other but also helping each other achieve individual goals. Mine for example is to have a strain of black bodied, white finned bettas. Still working on it :). Breeders in general are very cool and will share their fish, tips and help out new comers to the hobby. I know I do my share of answering questions via email on a daily basis, despite my insanely busy schedule. It is my own contribution, with this website, to the betta world. (pictured left: Betta show held at Borders Book store by LABS)

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Betta History

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My mentors were Patrick Ciccone (who was just the coolest and really got me started on the right foot) and Bonnie McKinley who further helped me by providing additional great stock to breed into my lines, and tones of useful tips. My deepest gratitude to both of them. Last but not least I want to thank Dr. Gene Lucas for all the time and work he has devoted to studying betta genetics and developing exciting new lines and color variations. Without his work and vision, breeders would have never been able to achieve the results they have. being able to accurately predict the outcome of a spawn is a luxury we all owe to Gene, so thank you Gene!!!



About the Paradise Fish

<http://www.tropicalfishkeeping.com/profiles/paradise-fish/>

Species Type: Freshwater Fish **Category:** Anabantids

Care Level: Easy. Does well in a slightly more narrow range of water parameters and shouldn't be used to cycle an aquarium. Will eat most prepared foods. May have some specific care requirements in terms of particular water parameters, social behaviors, food items etc.

Origin: An extensive range through parts of southeastern Asia to China, Korea and Japan. Found in any type of lowland habitat including river backwaters, small streams, ditches, ponds and paddy fields. Shows a preference for still and even stagnant waters. Most available fish will be commercially raised.

Compatibility/Temperament: Not a good community fish for the average aquarium. Smaller fish will be eaten, fins will be nipped, and any similar-looking fish will be attacked. Very aggressive with its own, males in breeding form will often kill rivals; females are less aggressive. Best kept as a pair on its own, or with medium-sized fast-swimming barbs and danios in larger tanks.



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About the Paradise Fish

Cont'd from page 5



The aquarium should be well planted with subdued lighting, partly achieved by floating plants; minimal flow from the filter suits this fish which prefers very still waters. In common with all the species in the suborder Anabantoidei, this fish possesses an auxiliary breathing organ called the labyrinth, named because of the maze-like arrangement of passages that allow the fish to extract oxygen from air taken in at the surface. The fish must use this accessory method, and it allows the fish to live in oxygen-poor muddy waters. To accommodate this, the aquarium must be kept covered to maintain warm moist air above the surface.

Sexing is easy as males are more colorful and have longer fin extensions compared to the females. This species is a bubble-nest spawner. The male builds the bubble-nest and entices the female under it. Following the common anabantid embrace, the eggs are expelled and fertilized and then picked up and spat into the nest by the male who then guards the nest. The female must be removed to protect her from the male. He should be removed once the fry reach free-swimming stage before he thinks of eating them.

This is probably the first ornamental fish aside from the goldfish to have been imported to Europe; top France in 1869 and Germany in 1876 [Fishbase].

This fish was first described and named *Labrus opercularis* in 1758 by Carl Linnaeus in his monumental *Systema Naturae*, the classification of all then-known species of life on earth that has become our present-day binomial nomenclature system. The genus name *Labrus* means furious, and presently contains four species of marine wrasses, all other former species having been moved elsewhere. The subject species was moved to the genus *Macropodus* [Lacepede, 1801], the writer assumes by Liem (1963) who also proposed changing the subfamily from *Macropodusinae* to *Macropodinae* [accepted by the Integrated Taxonomic Information System]. The taxonomy of the family *Osphronemidae* is in review.

In 1790, M.E. Bloch described the fish *Chaetodon chinensis*; this was determined to be the same species by Paepke (1990) and the name is now an (invalid) synonym.

Paradise Fish Diet: Omnivorous. They should be able to accept all types of food provided.

Size: Normally around 3.5 inches, some males may attain 4 inches.

Minimum Tank Suggestion: 30 inches in length (approximately 25 gallons).

Ideal water parameters for Paradise Fish:

Very adaptable. Soft to moderately hard (up to 30 dGH), acidic to basic (pH 6 to 8) water, temperature 16-27C/61-80F. Displays its best colouration around 21-24C/70-75F.

Contributing Members: The following members have contributed to this profile:
Byron

Read more: <http://www.tropicalfishkeeping.com/profiles/paradise-fish/#ixzz1APmfvH7q>



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Hours of Operation

Monday-Thursday
11:00 a.m. – 7:00 p.m.
Friday
10:00 a.m. – 8:00 p.m.
Saturday
10:00 a.m. – 5:00 p.m.

**Sunday:
Closed**



2010-12 - Some hard thoughts on conservation

By Juan Miguel Artigas Azas, 2011. last updated on 06-Jan-2011

Submitted by: Annette Bishop, London Aquaria Society, C.A.R.E.S. Co-Ordinator, February 8, 2011

A common current topic of concern among cichlid lovers is that of conservation. Basically most people would agree on the accelerated decay of our natural inheritance. Our natural environment is nowadays put under a tremendous pressure as a result of human always expanding activities, supported in what many of us have no problem to justify as valid reasons.

Many aquarists, by nature interested in life diversity, enter in panic every time they learn about habitats of their beloved cichlids that get endangered because of human activity, with nothing or almost nothing they can do about it. One recent example is the approval (after a long environmental fight) the Brazilian government has given to the construction of a huge hydroelectric project in Rio Xingú, that will affect the endemic fauna of that wonderful river and that or Rio Madeira, both key rivers of the Amazon basin. Another example is the extirpation of many of the endemic cichlid species from Lake Victoria by the introduction of the Nile perch (*Lates niloticus*). Many of the species are gone before we can have a scientific description for them. Species remaining are facing a change in their natural habitat that may lead them to extinction all the same. This kind of examples multiply every passing year here and there and it would be tiresome (and certainly depressing) to keep listing them here.

Then comes the topic conservation. What can we do beyond signing support letters (that in most cases have little to no effect) to preserve aquatic diversity? The simple answer is: "save the fish in your aquariums". Actually, this sounds good at first thought but the implications go far beyond our initial considerations. Is it really worth to save fish in our aquariums? Opinions vary in this respect.

In the first place it comes the issue of the genetic integrity of the specimens kept in an aquarium. It is said by some that it is worthless to keep species in captivity, as their genetic integrity starts to shift away from that they have in their natural habitat as soon as the first generation hits the aquarium environment. This is certainly true, but on the other hand, does that make it worthless to keep a species for long term in captivity? I don't think so, even while I agree that the genetic framework of a species shifts away as soon as they hit an artificial environment, that does not mean it is lost or cannot be recovered. I believe that given a good number of specimens kept in captivity (to avoid inherited genetic defects, like those found in captive populations of the Goodeid *Skiffia francesca*, who have the tendency to swim sideways, kept in captivity since its reported last collection back in 1967), the genetic integrity can be mostly recovered once the organism returns to the restored habitat.

In this regard I remember as a kid putting veil-tail guppies in large outside pools, after several generations I found out that the carefully selected traits breeders achieved after many generations, that made a veil-tail guppy or fancy swordtail, had reverted back to those of wild specimens, given the semi-natural conditions of the big pool. The organism will adapt to the new environment, or perish. What better than nature engineered morphology? The problem is, if we save an organism in aquarium, what happens to the rest of the organisms that were part of the intricate environmentally balanced network they were part of? Those organisms lost, the saved organism can hardly be the same, even if returned to the restored habitat. In any case, the organism will either perish in the new conditions or thrive in the new circumstances.

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Best In Show



Name	Month	Fish Name	Gift Certificate Sponsor
James Kelly	January	<i>Bolbitis heudelotii</i> (African or Congo Fern)	Pet Paradise

Name	Month	Fish Name	Ribbon
Dorothy Reimer	January	Guppys/Swordtails <i>Red Swordtail, female (Xiphophorus helleri)</i>	Red
Nancy Egelton	January	Guppys/Swordtails Half-black/yellow Guppy, male (<i>Poecilia reticulata</i>)	Blue
Bob Steele	January	Guppys/Swordtails Half-black Swordtail, male (<i>Xiphophorus helleri</i>)	White
Bob Steele	January	Guppys/Swordtails Tuxedo Guppy, male (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Black Moscow Guppy, female (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Black Moscow Guppy, male (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Wild Guppy, male (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Wild Guppy, male (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Wild Guppy, male (<i>Poecilia reticulata</i>)	
Bob Steele	January	Guppys/Swordtails Painted Swordtail, female (<i>Xiphophorus helleri</i>)	
Bob Steele	January	Guppys/Swordtails <i>Red Swordtail, male (Xiphophorus helleri)</i>	
Bob Steele	January	Guppys/Swordtails <i>Red Swordtail, male (Xiphophorus helleri)</i>	
Dorothy Reimer	January	Guppys/Swordtails Green Swordtail, female (<i>Xiphophorus helleri</i>)	
Pamela Lougheed	January	Guppys/Swordtails Fancytail Guppy, female (<i>Poecilia reticulata</i>)	
Nancy Egelton	January	Guppys/Swordtails Half-black/yellow Guppy, male (<i>Poecilia reticulata</i>)	
Pamela Lougheed	January	open High-fin Grey Platty (<i>Xiphophorus maculatus</i>)	
Bob Steele	January	open Angel fish (<i>Pterophyllum scalare</i>)	



As you all know, last month's weather conditions for our Monthly Meeting, were not the best and because Nancy has to travel quite a long way to get home, I wanted to make sure that she got there in once piece. Thank goodness that she did and in response to my e-mail, she sent me some pictures that Deanna took of some of the Deer that frequent their property. I thought I would share.

Thanks Nancy and Deanna.

Name	Month	Plant Name	Ribbon
James Kelly	January	open <i>Bolbitis heudelotii</i> (African or Congo Fern)	Red
Dorothy Reimer	January	open <i>Pennywort (Hydrocotyle sp.)</i>	Blue
James Kelly	January	open <i>Water Sprite (Ceratopteris thalictroides)</i>	White

2010-12 - Some hard thoughts on conservation

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Nevertheless, I strongly believe that even if we manage to lead to extinction most of the species, a whole new balanced eco-fauna will evolve from those few organisms remaining. We are not so powerful as we like to think, believing that we can finish with life forms if we feel like it, and it doesn't really matter, as we as humans are all that is important. We just can't and I feel that strongly. We as humans certainly will be gone before that happens. And a whole new set of species will evolve from those surviving our aggression. I even believe that intelligence and love will evolve again as we know them, but in other beings that may study us, like we study dinosaurs. The problem of all this is, we (and our descendents in the short term) will be deprived of the wonderful assemblage of life, which supplies us so incredibly profusely with resources, beauty, peace and knowledge.

So, do I think it is worth to keep captive populations of endangered organisms? I repeat I believe it is, and probably it is our only way to give them a chance as aquarists, regardless of the fact that many of those organisms will probably not be able to thrive in the new conditions they will encounter when we take them back to their restored habitats, or those we create for them

Keeping captive individuals with the aim of conservation is however not as easy as we can think. One person can lead as species to breed in their captive conditions for one or two generations with little problem, but making them breed for many consecutive generations with little loss of their natural traits is a completely different matter. I highly respect people like **James Langhammer**, who has done it for *Skiffia francesae* and *Hubbsina turneri*, or my favorite, **Rosario LaCorte**, who when I visited him back in 2001 showed me those incredible tetra and rainbow fish colonies he had been keeping consecutively for 35 years! You need to be a great aquarist to achieve that!

A conservation minded aquarist wanting to save a species will face several problems, first of all, lack of encouragement. It requires a lot of discipline to keep a species for a long time, devoting the (most of the times) very restricted resources an aquarist counts with, to a single species. The clubs "breeding award programs" that reward the number of species reproduced do little help to conservation, they actually act in counter sense to it, I believe. Breeding award programs should reward long term maintenance of a species instead of the number of species reproduced. In my view, there is no value but that of ego pumping in breeding many different species, and then get rid of them.

The commercial value of a preserved but readily available species goes down to nothing, as most times the conservation minded aquarist is eager to give away some stock to other interested parties. No money in a fish, many breeders won't even consider allotting space to them for a generation. So, how to achieve genetic integrity if nobody else wants to keep a population of a species to later share stock with? Many conservation efforts I have seen have wasted away in boredom and lack of meaning, and finally threw out the board. It is easy to say "yeah preserve one species", much harder is to actually do it yourself. So, in my belief conservation efforts must take these facts into consideration. Clubs must support long term conservation of a species, if they really care for conservation, beyond being politically correct. Populations should be monitored and people working with one species should always keep in contact with other people working with them, to share information, stock and overall, support. As I mentioned, those who benefit will just be ourselves!

Have all of you a year full of health, excitement and love! Enjoy the wonderful nature we still have!

p.d. This editorial was written in December, 2010, but for technical reasons it is published in January. So I publish it as a late December editorial, as a new topic will be published in the coming days.

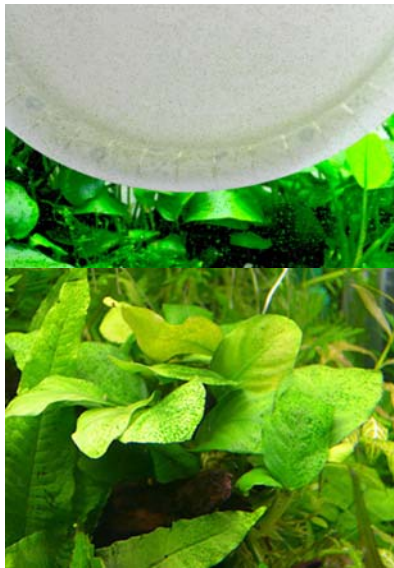


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Green Spot algae

www.theplantedtank.co.uk/algae.htm, James Planted Tank—Algae Guide

Submitted by: Bob Steele, London Aquaria Society, February 13, 2011



Description: Forms hard green circular spots on the glass and slow growing plant leaves.

Cause: With Estimative Index low, phosphate levels often bring on a Green Spot algae outbreak. Also, Low CO2 and poor water flow. Too long a lighting period doesn't help.

Removal: If dosing Estimative Index increases phosphate levels by adding monobasic potassium phosphate or fleet enema solution. Aim for a level of 2 to 3ppm. Check CO2 levels and water flow. Can be scraped off the glass using a razor blade or a good magnetic glass scraper. Between 9 and 10 hours is plenty of lighting time for the plants. If it is more then reducing it may help. If dosing a lean dosing method like PMDD or PPS-Pro then modifying the NO3 to PO4 ratio normally helps. A bit of trial and error may be required.

Green Water



Description: This is a unicellular algae. Water goes cloudy. Sometimes just a green tint, other times it can look like pea soup.

Cause: Ammonia is often the main cause green water. There may have been an ammonia spike that isn't detected with test kits. Other possible causes are an imbalance of nutrients and/or low CO2 levels.

Removal: Large water changes do not seem to always help. If there is an imbalance in nutrients then fixing it will sometimes make it go away by itself after a while. A three day blackout followed by a large water change will hit it hard and sometimes may clear it. A UV steriliser/clarifier or diatom filter will clear it up very quickly and is often the only way to clear it. A new method is to use freshly cut 1-2 year old willow branches about 0.5-1cm in width. Place these in your tank

vertically so they go from the substrate to a few centimetres above the water's surface. After a few days they will start to grow roots and the green water should start to clear. When cleared remove the branches from the water. Don't confuse this with a bacterial bloom which gives the water a white haze.

Hair, Thread, Fuzz, etc

Description These are very general names for a wide variety of filamentous algae. Generally green and varying in length.

cont'd on page 11

Hair, Thread, Fuzz, etc

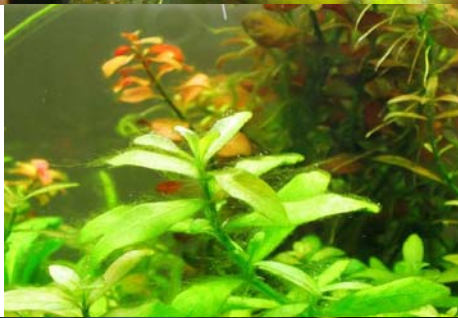
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I have listed some of the more popular filamentous algae under their own section on this page.

Cause: A range of causes including low CO₂, low nutrient levels and ammonia spikes. Nothing to do with excess iron as commonly thought.

Removal: Can be very difficult to eradicate at times. A high plant mass with good CO₂ and a good supply of nutrients along with constantly hassling the algae seems to pay off after a while. Removal by twisting around a toothbrush or similar. Overdosing Flourish Excel can help. Amano shrimps, Rosy barbs and mollies will often eat it.



Oedogonium

Description: A fairly short length filamentous algae that can give a fuzz look to plants.

Cause: Low CO₂. Low nutrients.

Removal: Check CO₂ levels. Add nutrients. Overdosing Flourish Excel can help. Amano shrimps, Rosy barbs and mollies will often eat it.



<u>Month</u>	<u>Plant</u>		<u>Fish Categories</u>	<u>Class</u>
September	open	open	Loaches, Suckermouth, Catfish,(Corydoras, Brochis, Plecos)	
October	open	open	Cichlids – substrate spawning (Angels, Kribs, Rams, etc.)	Family
November	open	open	Cyprinids (Goldfish, Koi, Barbs, Danios, Sharks, Rasboras, White Clouds, etc.)	Pairs
December	open	open	No jar show due to Christmas Party.	
January	open	open	Guppies (Fancy, Trinidadian, etc.), Swordtails	
February	open	open	Bettas, Gouramis, Paradise Fish,	
March	open	open	Mollies, Platies	
April	open	open	Characoids (Tetras, Hatchetfish, Silver Dollars, etc.)	Family
May	open	open	Cichlids -mouthbrooding (Guentheri, Aulonacara, etc.)	Pairs
June	none	none	Due to awards night	

Observing Our Electric Catfish

By: Vern Bragg, Lockport, New York, May 9, 1967

London Aquaria Society Newsletter, June 1967

Submitted by: Annette & Ron Bishop, London Aquaria Society, February, 2011.

The African Electric Catfish (*Malapterurus Electricus*) that we brought to the London Show this year is by far our most interesting fish.

About two years ago, my son purchased two Electrics that were hardly more than fry, about 1-1/2" long and a girth of 3/8". One died that same day. The survivor seemed that it too would perish, refusing to eat for a week. We had lost one on a previous attempt for this reason.

The first food accepted was ground beef heart. Since that happy day, our "Gregory" has grown into a marvelous adult of some 12" in length with a girth of about 3".

Food: Ground beef heart frozen into a block and fed in chunks partially thawed. Frozen shrimp is accept in the same manner but with less enthusiasm and is very messy in the tank. An occasional earth worm is accepted but should be fed sparingly. Fish, but must be alive. We feed unwanted fish and purchase Goldfish to 3". This fish gulps his food with little ceremony and wants it in large chunks. Even as a small fish they refuse prepared foods and loose shrimp.

Conditions: We find that once the fish has accepted food it is a hardy specimen. Our water is kept at 72°F. and no preparation is made other than aging. Our city water is from the Niagara River. Ph is neutral and is 7 to 8 D.H. We use a box filter and 1" of gravel in a 20 gallon tank. The feces are large and the gravel helps hold some on the bottom until they can be removed with a fine net. The tank is covered. The fish will surface occasionally for a gulp of air and will go so high as to lift the gill covers out of the water.

Habits: This fish is generally active when people are around. He seems to respond to sounds like voices or the radio. When sitting quietly in the fish room he also is quiet and settled.

Deportment: We find that although Gregory is carnivorous, he is a well behaved fish. His movements are generally slow and quite graceful. When turning, one can see rolls of fat ripple along the body. I was shocked once while netting him when I supported the net with my left hand. He was, no doubt, defending himself. We put our hands into the tank to clean the bottom without fear. He seems to enjoy the movement of the water created by the cleaning.

Eating Habits: When giving him chunk food like beef heart or worms, we wait for him to respond to the removing of the cover. If hungry he will surface and strike the food at once. We find that if the food is dropped in without a response, there is an even chance it will not be eaten, creating a fouling problem. Live fish are sometimes grabbed at once, but are usually taken at leisure. He prefers to catch them by trapping them in a corner or will slowly follow them about the tank for an extended time at a slow pace. The slow pace seems to lull the prey into a false sense of security. Once the pace has settled to a rhythm, keeping a space of 1 to 2 inches between them, the hunter will give a quick thrust of his large tail and over take the prey before it can respond.

I have seen him electrocute six fishes. This method is different in that he moves about until he is abreast of the prey at a distance of 1 to 3 ". The charge is thrown by a violent muscular movement of the body, the head and tail curling toward the prey, stunning him. The culing position must direct the charge at the chosen victim, for all I have seen him stun have been solo kills and other fishes in the tank seemed to be unaffected. Whether trapped or hit with a charge, the prey is always grabbed by the tail and reversed in the mouth to be consumed head first.

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Observing Our Electric Catfish

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It is rare to observe an electric attack as he prefers to hunt in the dark. We watch him with the light from a near by tank. All electrical attacks witnessed have been in this reduced light but the stalking is observed quite often in full light.

It is not unusual for him to stop eating for a day or two. He often gorges himself and then returns to the bottom to lie in a happy state.

In conclusion, we find the African Electric Catfish to be difficult in the original acclimation but once his hurdle is passed, it is a graceful, amusing and very interesting fish. He is not dangerous if handled carefully.

We hope our Gregory lives for a long time. Oh yes! Gregory is a lady! ;)

Editor's Comment: I would like to thank Vern for the support he gave our club at the Annual Show and for this fine article he took the time to write. His pet Electric Catfish deserved that first place trophy and I hope the young lady lives to win a dozen more. Thanks again Vern and I hope to hear from you again.



This is a new article that we decided needed some attention. I'm not much of a writer but I am willing to give it a shot.

As you may or may not already know, Aquarium services, aka "BIG ALS" to most, has moved shop. The new location is at the north-east corner of Commissioners and Adelaide. To enter the plaza you must go one block east on Commissioners to Leathorne and it's the first driveway on the left. While you're there, you can also visit the licensing office to pick up your sticker. :0)

Even though the new store in my opinion is much nicer, although not as spacious, it still offers a wide selection of supplies and fish. Paul has been in the business for over 12 years and owner of the store for 6.5 years. He has 10 employees all very friendly and I must say, knowledgeable, maybe not in all areas of the hobby but much more so than the big box outlets. This store has 114 tanks of both freshwater and saltwater, 85% of which are freshwater and the remaining 15% is saltwater. The store carries tanks, fish food, medications, ornaments, live and artificial plants, driftwood, gravel, lighting, filters (hang on the back, canister, sponge, box, under gravel) and if you don't see what you need they can order it in for you which may take a week to ten days to get in. Just ask the friendly staff and they will check on line and let you know right away.

Oh, by the way, don't forget to show your London Aquaria Society Membership card and receive your 10% discount. They also guarantee the best prices in town. I hope this helps everyone and thanks for reading.

Next month, Pets'n'Ponds in Strathroy.

Bob



Annette's C.A.R.E.S. Corner

We currently have 8 members who have handed in their registration sheets. The registered fish and members have been forwarded on to Klaus for inputting into the CARES system. The paperwork will be sent in approximately every 3-4 months, so that we don't get a back log.

With only those 8 members, we have a total of 19 different species of endangered fish. We do have some duplicate species, because of our monthly auctions, and sharing.

We have had 3 of the registered members send in requests for 5 other species of endangered fish. We have had CARES respond to 2 of those requests already. I am hoping to get the paperwork turned in for those new fish soon. I still have some paperwork outstanding, and if anyone has some at risk fish in their tanks, I would be very happy to hear from you.

Annette

Care and Breeding of Killifish

Jan 25, 2008 Douglas DuHamel

www.suite101.com/content/care-and-breeding-of-killifish-a42759#ixzz1BXs1byS9

Although Killifish can live and breed in many diverse habitats in the wild, it is a challenge to raise the fry in an aquarium setting.

Killifish Characteristics: Most Killifish have elongated bodies and are divided into two types. The species that live and swim near the surface have a pronounced undershot mouth. The species that are middle and bottom swimmers only have a slightly undershot mouth.

Most Killifish prefer a soft and slightly alkaline water with a PH of 6 to 7. There are two exceptions to this and that is the species from Lake Tanganyika and types located in deserts. They need a hard alkaline water PH of 7 to 9.

Killifish Habitat: Killifish can be found almost worldwide except for Australia, Antarctic and the Arctic. They seem to be able to live in places no other type of fish can live and still survive. Killifish can be found in mud puddles with no circulation or current or they can be found in lakes or streams. Puddles have a tendency to dry up but when the puddles fill up again, Killifish can be found.

Popular Killifish Species: There are many types of Killifish but here are a few of the more popular species for aquariums:

- *Steel-Blue Aphyosemion* grows to a size no longer than three inches and should be kept in a 20 inch long tank at a water PH of 6 to 8.
- *Aphyosemion Striatum* grows to a size of two inches and should be kept in a 12 inch tank (2 gallon) at a PH of 6 to 8.
- *Epiplatys Dageti Monroviae* grows to about 3 inches and should be kept in a 2 foot long tank (15 to 20 gallon) at a PH of 6 to 8
- *Rivulus Xiphidius* grows to 1 ½ inches and should be kept in a 12 inch (2 gallon) tank for a pair





C.A.O.A.C. Events Calendar

February 13, 2011: (Recognition award nominations for the 2011 convention due)

10:30 AM CAOAC Executive meeting in Waterdown, ON

12:00 PM CAOAC General meeting in Waterdown, ON

March 6, 2011: Hamilton & District Aquarium Society **AUCTION ONLY**

March 20, 2011: (Annual awards meeting in Waterdown at 9am. Location will be announced closer to the date)

10:30 AM CAOAC Executive meeting in Waterdown, ON

12:00 PM CAOAC General meeting in Waterdown, ON

March 27, 2011: Brant Aquarium Society **SHOW & AUCTION**

April 10, 2011: Durham Regional Aquarium Society **SHOW & AUCTION**

April 17, 2011: (Annual reports are due)

10:30 AM CAOAC Executive meeting in Waterdown, ON

12:00 PM CAOAC General meeting in Waterdown, ON

May 1, 2011: London Aquaria Society Auction

May 20 - 23, 2011: CAOAC annual convention hosted by the Brant Aquarium Society. Best Western Brant Park Inn, Brantford ON Canada (**SHOW & AUCTION**)

June 26, 2011: (CAOAC Meeting / Presidents BBQ)

10:30 AM CAOAC Executive meeting in Waterdown, ON

12:00 PM CAOAC General meeting in Waterdown, ON

September 25, 2011: London Aquaria Society Show & Auction

October 2, 2011: Hamilton & District Aquarium Society **SHOW & AUCTION**

Care and Breeding of Killifish

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Killifish are not lively swimmers. Males are very aggressive and territorial and will fight to the death with other males if there are too many males in the tank or if the tank is too small. Killifish aquariums should be heavily planted plus they should contain wood and rock for hiding places. For good measure, floating plants should be added in case the species of Killifish are top swimmers.

Breeding Killifish: In the Killifish world, there are bottom spawners and substrate spawners. The bottom spawners will deposit their eggs in soft bottom material like sand or plants. Substrate spawners will lay their eggs in cracks of wood or on rocks with cracks or in heavily planted areas.

Killifish do not look after their young so you will need to feed them a special diet. This seems to be the biggest problem with raising them.

Raising Killifish Fry: Raising Killifish fry can be challenging in terms of finding the right foods. You can usually start the fry out on Artemia and after a week, keep feeding them Artemia but add other small foods like Cyclops white worms and baby brine. This seems to give the most success with Killifish fry. They can be fed regular fish food once they reach adult size.

Although challenging, Killifish are an interesting fish to breed.



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