

FINCHAT

MARCH 2024



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FISH FAIR

Our first 2024 FISH FAIR is on ...

SUNDAY MARCH 24th.

10.00 am to 1.00 pm

Vendors admitted 9.30 am.

***Bargain fishes and plants
for all***

***Come along to buy, or simply enjoy a
morning with friends***

Admission is free

Tea and coffee available free !

Remember March 24th. for the

FISH FAIR



Cover Photo:

Fish Fair 2022

**Eager buyers swarm around
the tables in**

**the October 2022 Fish
Fair. See article on page
14.**

Another blockbuster meeting on February 23rd. with Scott Haymes of Nautilus Aquariums wowing a capacity crowd of 35 with his wonderful knowledge of water chemistry.

Scott has been involved in fish keeping since an early age and his passion has never waned. Testimony to this is the fact that he still keeps and breeds fish at home, despite working with them all day (and sometimes night !).

Scott also operates *Aqua Pics* foods and remedies which have gradually come to be recognised as premium products, equal if not superior to the big brands ... Tetra, Seachem, Wardleys etc.

Scott had prepared four handouts as well as bringing a range of water conditioning and stabilising products to be viewed. More on these later !

Scott gave us a brief background on his fish keeping life and then briefly touched on the Nitrogen Cycle as depicted graphically on page 4.

The schema is self explanatory and is the reason we cycle tanks before introducing fishes. It is to allow a period when the Nitrosomonas and Nitrobacter can colonise your tank ready to break down the fish waste etc. to harmless nutrients.

The second chart on page five shows the development of the two bacteria mentioned and how long it takes to reach levels which are safe for your fishes.

Scott then moved on to pH and explained that pH is a measure of the number of hydrogen ions in a solution. Water is H₂O and this molecule is constantly breaking down into its components, which we call ions and reforming as shown by the equation...



The number of the H⁺ ions in a litre of water gives us the 'power of hydrogen' or in some other cases ... the potential of Hydrogen. Rather than using the actual number which is very large we use the 'log'.



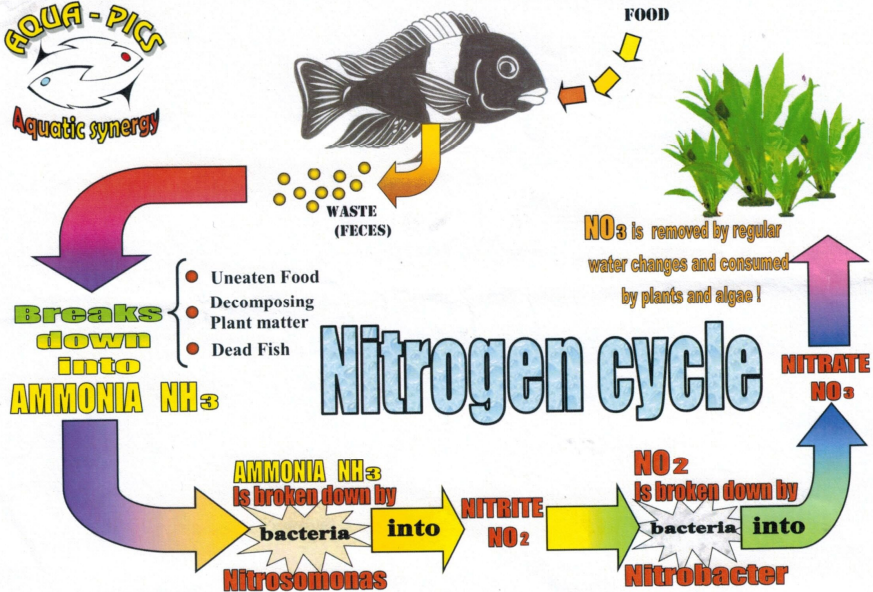
This has nothing to do with wood, but means the number of zeros the number would contain.

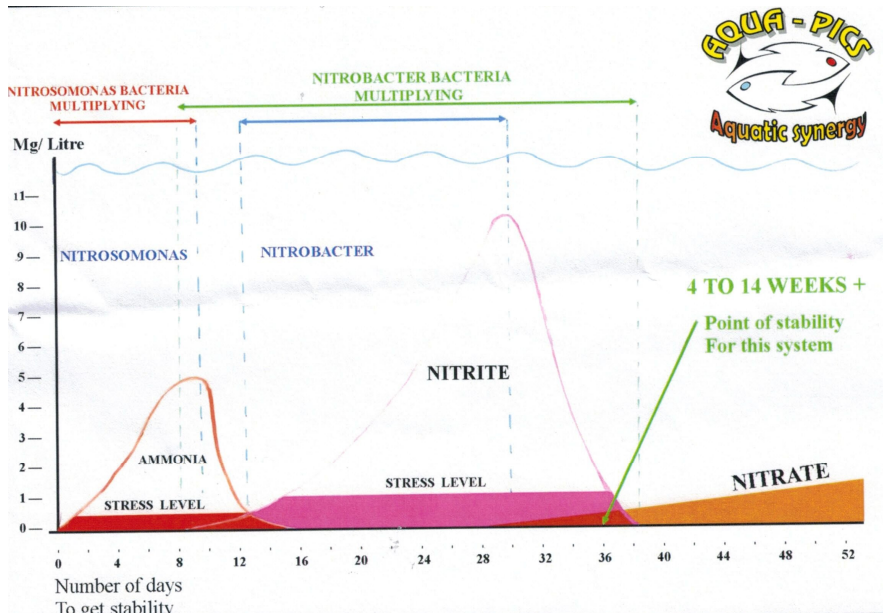
The scale thus produced runs from 0 to 14 with the mid-point 7 being when a balance has been struck with equal numbers of Hydrogen (H^+) ions or protons,

hydroxyl ions (OH^-) and electrically neutral molecules H_2O .

If this has seemed confusing you can clarify by Googling pH, noting the lower case 'p' and upper case 'H' from the proper noun Hydrogen !

We'll make chemists of you yet





Scott then analysed the difficulties in maintaining any particular level of pH in your tank. This is particularly relevant in the case of Rift Lake cichlids, where the natural conditions pertaining in these unique environments has led to high pH values, 7.8 to 9.3.

In your tank the organic load builds up as faeces, urine, slime coat shedding, plant rotting and airborne debris enter the water.

These things end up as Ammonia based acids and gradually act to lower the pH.





Scott explained that using the most common pH adjusting chemical, Sodium Bicarbonate, was not the solution as the effects wore off in a few days. Additional chemical then needs to be added to continue controlling pH drop.

The answer is to ‘buffer’ the pH by increasing the carbonate hardness to slow the breakdown of the bicarbonate (HCO_3^-) ion.

Water with a kH (Calcium Hardness) of less than 4dkH (70 ppm) is vulnerable to pH swings. Maintaining a kH of 6 to 8 will solve your pH problem.

This information led to an explanation of what exactly kH is. kH stands for Kalcium hardness from the German.

It is a measure of the carbonates, bicarbonates, borates and hydroxides in your water and is necessary to slow, or even reverse, alterations to pH.

A reasonable level of kH is necessary for your fish’s internal chemistry which the fish controls through osmosis, eliminating or absorbing minerals through its skin to balance external conditions.

To further confuse the issue we have general hardness (gH) which is a measure of Calcium (Ca^+) and Magnesium (Mg^+) present in your water.

If the gH is too low it will continuously stress the fish resulting in reverse osmosis where the fish tends to push out what little mineral it has in reverse osmosis.

Scott itemised the results of low gH on our fishes. It affects the calcium content of its bones, its immune system, and its digestive system leaving it prone to disease and general ill health and, most importantly, interest in breeding.

Scott pointed out that T.D.S. (Total Dissolved Solids) meters do not measure gH, and thus measurement must be done by litmus paper type strips or a liquid drop system.

A minimum kH of 4 is required to lock in pH at the required value.

Another handout dealt with the situation for the two Great Rift Valley lakes, Lake Malawi and Lake Tanganyika.

Because of the mineral content of the water keeping fishes from these two sources requires careful attention to pH and hardness.

Lake Malawi water runs at pH 7.8 to 8.5, with gH 10 to 20 or 140 to 220 ppm.

Lake Tanganyika is even more heavily laden with mineral, It runs at pH 8.8 to 9.3 with gH 15 to 25 or 270 to 450 ppm.

It is impossible to maintain these conditions in your Cichlid tank without major addition of chemical ‘adjusters’.

A really great presentation as shown by the number of questions asked, Scott also donated a number of his products for members to win in a lucky draw!

Thanks Scott. Daryl M.





Breeding L340
Mega Clown Plecos
By Andrew Orchard

The Mega Clown Pleco L340 is a *Hypancistrus* species from the Orinoco River in South America. It is typically a meat eater but listed as an insectivore in its natural habitat.

Keeping the L340 pleco is relatively easy. It requires warm oxygenated water 26 to 30 degrees Celsius and a pH of 6 to 7.5. Despite being called the Mega Clown pleco it only grows to 8cm in length.

I bought six L340 in late 2022 that were 5cm long.

They were being sold as sub adults. I kept them in a 120cm long 180 litre aquarium with some other pleco varieties.

I fed the L340 plecos on protein pellets, shrimp wafers and Fuzzy Fox insectivore mix. Initially the L340s settled in well with the other plecos in the aquarium.

I didn't notice any spawning activity with the L340s though one regularly used a cave that I had in the aquarium. I assumed that this fish was a male as they often use caves to hide whilst females hide elsewhere.

The other L340s tended to be dispersed around the aquarium.

Usually they were hiding in the driftwood that I had placed in the aquarium. One piece of driftwood had a hollow section inside it and I noticed that one of the L340s was holding in the end of the hollow section. I assumed that this fish was a male as well.

In September 2023 I found a single L340 fry, unexpectedly when I was doing a water change on the pleco aquarium. It had only just absorbed its egg sac and was ready to be moved.

I transferred it to a fry tank and looked around the pleco aquarium to see if there were any more, but to no avail. In late October 2023 I then noticed that the L340 in the hollow piece of driftwood was fanning with its anal fins and I could see some fry ahead of it.



I took the wood from the aquarium and stripped out the fry. After I stripped the fry I placed the driftwood piece back into the aquarium and it wasn't long before I noticed a female L340 in the hollow with the breeding male L340.

The next spawn produced five L340 fry which I stripped and moved into the same fry raising aquarium.

I then did some internet research on breeding L340 plecos and I found a breeding report that said that having a low TDS helped getting get them to spawn.



I have been using rain water in my pleco aquarium to keep the TDS low (under 100ppm) because I have been breeding L002 plecos in the same aquarium. I also read that L340 spawns are typically small at between 10 and 15 fry.

I am hoping that any future L340 spawns are bigger in number as the breeding group mature.

As of the last spawn my water parameters in the pleco breeding aquarium were pH 6.8 temperature 27 degrees Celsius and TDS 90.

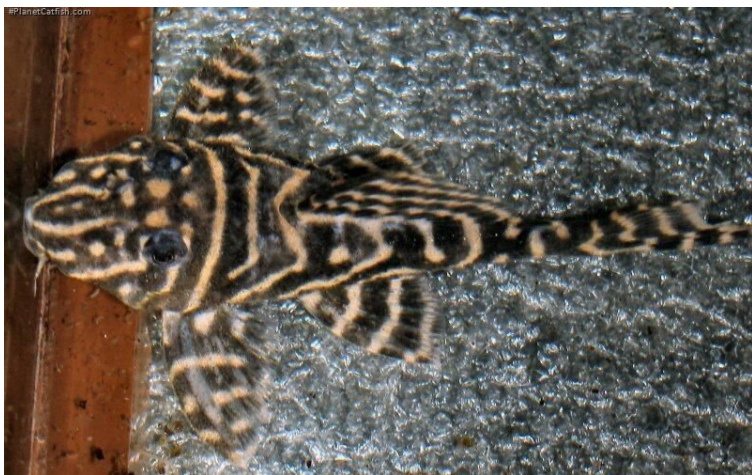
The Mega Clown pleco is quite attractive for a small Hypancistrus species having a grey body with fine white lines.



They cost between 100 to 150 dollars each for 4cm size juveniles and are available in aquarium shops at times. Being a Hypancistrus species they are classed as an easy fish to breed so they are well worth keeping as a home hobbyist.

Andrew Orchard

Photos * by the author.



In April, on Friday 26th. We are to be treated to not one but two speakers dealing with Feeding your fishes.

As I had this single page to fill I thought I would whet your appetite with some introductory information on fish nutrition from L. G. Stansbury a noted English aquarist and nutritionist.

“Nutritional requirements of fishes are largely unknown, with research limited to the most commercially valuable species such as Salmon, Trout and Channel Catfish.

Generalisations can be made from this research to assist the hobbyist with food selection and also preservation.

All nutrients for tropical fishes can be categorized as either proteins, fats, minerals, vitamins and water.

Water is rarely a problem nutritionally because of its absorption from aquatic environments.

Precise vitamin and mineral requirements are difficult to measure or monitor by either hobbyist or scientist.

Adding to the difficulty, fish assimilate minerals through the gill membranes as well as from food.

The three remaining nutrient classes can be measured over a range of tropical species.

Proteins:

Almost all body tissues are composed of proteins. When consumed proteins are reduced by digestive enzymes to basic amino acid components which are used for energy provision or building tissues.

Feeding trials have shown that protein levels in fish food need to be from 36% to 60% for cold water fishes and 24% to 55% in warm water species.

Fats:

Fats include both solid fats and liquid oils. These compounds supply at least twice the energy compared with Proteins and Carbohydrates per unit weight, and are stored in fish tissues as reserve energy.

Hard high melting point fats are not effectively utilized by fishes, however low melting point fats are readily digested.”

to be continued...





These are the ten fishes shown at the February meeting Flash-a-Fish presented by Andrew Orchard. Can you determine which of the ten is *Corydoras zygatus* ?

How many of those shown can you identify?

Next month all will be revealed and all ten fishes will be identified.

Thanks Andrew.



If you would like to present a Flash-a-Fish segment at a meeting, it is very easy, Simply select a fish with which you are familiar and let me know.

The power point is prepared for you ... you don't have to provide the alternative pictures and the entry slips are also prepared for you.

Your part is to present a five minute talk about the fish, and providing any notes you may have prepared to assist with the reporting in Finchat. *Easy peasy !*

Corydoras are flavour of the month and in May we have an international expert lined up to give us the latest information !

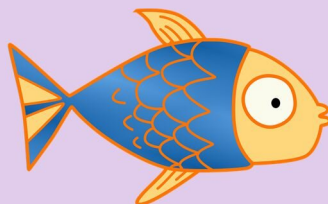
FISH FAIR

**SUNDAY MARCH 24th.
10.00 am to 1.00pm (approx.)**

Vendors admitted 9.30 to set up

Bargain FISH PLANTS and ACCESSORIES

Come to buy or just Socialise
Credit card facilities available
Free tea Coffee and biscuits !



As can be seen on the previous page, Sunday March 24th. is the date for our first Fish Fair of the year.

Fairs offer to members and others, the opportunity to sell aquatic produce be it fishes or plants, direct to the public.

Tables as shown in the photos are allocated to those who wish to participate, members free, non-members \$20.

Your goods are sold to the buyers who usually flock in as early as possible to get the best bargains before they are taken.

Vendors are admitted at 9.30 and the buying public come in at 10.00am.

There is usually frantic activity for the first hour and a half, then things slow down, as the most eager customers satisfy their needs and depart. Most vendors sell out by 12.00 noon and pack up and leave.

Every assistance is rendered to our sellers. A steward offers tea or coffee and/or a snack, and credit card facilities are available for every table holder. Come along on the 24th. for a great morning. Daryl M.



Three new members to be welcomed this month :

Lauren Brown of Berwick

Boaz Jurkowicz of Malvern

Alex Rajapaska of Richmond

We appreciate their interest and hope to see them in the near future.

2024 Calendar

1. Friday January 26th. Forum
2. Friday February 28th. Scott Haymes
3. **Sunday March 24th. Fish Fair**
4. **Friday April 26th. Fish Foods**
5. **Friday May 31st. ... Eric Bodrock**
6. **Friday June 28th. ... Tissue Culture**
7. **July ... ?**
8. **Friday August 30th. Blake Wall**
9. **Friday Sept. 27th. Hans-Georg Evers**
10. **Friday 25th. October ... TBA**
11. **Friday 28th. November ... A S of V A.G.M.**



Fish Fair is shaping up to be a record... all 14 tables have been booked and promotion has been as widespread as we can make it. The fact that all the tables are taken three weeks before the event speaks volumes for the enthusiasm of the vendors... let's hope we strike the same level in the purchasers.

Only the fact that we now have the stackable and readily moveable chairs, allowed enough room in the hall for an extra two tables for this Fair. We are a bit squeezed but hopefully buyers will still have ready access to the heaps of bargains to be offered.

Remember the doors open to the general public at 10.00 a.m., but if you have reserved a table you will be admitted at 9.30 a.m. to set up your wares. Credit card facilities via 'Square' will be available to all sellers and some change may be obtained from the top table, however please come with some change of your own, remembering that early purchases will be with larger denomination notes.

We are hoping for a great Fair, knowing everyone is keen to save money in these difficult times, and what better way than to pick up fish keeping supplies at less than half normal price !

As stated on page 11, April 26th. will see two speakers talking on Fish Foods. Nevil Amos will be dealing with live foods and Andrew Orchard will follow up on his recent article on Gel foods.

With Scott Haymes coverage of water conditions last month and feeding fish covered in April (Friday 26th. !) you will be well prepared to enable optimum conditions to prevail for your finny friends.

Congratulations to Zack Ainslie for achieving his 25 species badge. I know people are breeding fishes out there but few are bothering to register their successes. It is a simple procedure ... obtain a form, fill it in with details of what you have spawned and when. The first badge is for 10 species and can easily be achieved with live bearers to give you a flying start ! Daryl M.