

FISH WORLD *Magazine*®



aquarian

1997 SHOW DATES

(Rule Codes: A-A of A, FB-FBAS, FN-FNAS, FS-FSAS,
I=International Goldfish Standard; N-NEFAS, U-USofA, Y-YAAS)

| | |
|---------------|--|
| 15.3.97 | KENT ASSOCIATION OF AQUARIST SOCIETIES CONVENTION, Smithys Hotel, Margate, Kent |
| 30.3.97 | Northampton A.S. (FB) |
| 5/6.4.97 | ANABANTID ASSOCIATION OF G.M.B. WEEKEND, Sorby Hall Endcliffe, Vale Road, Sheffield |
| 5/6.4.97 | YORKSHIRE AQUARIST FESTIVAL, Doncaster (Y) |
| 7.4.97 | Eastleigh A.S. (FB) |
| 13.4.97 | Aberdare A.S. (FB) |
| 20.4.97 | Stroud A.S. (FB) |
| 27.4.97 | Robin Hood Aquarists (FNI) |
| 3.5.97 | Sourhend, Lough & D.A.S. (FB) |
| 4.5.97 | Musselburgh A.S. (FB) |
| 11.5.97 | Corby A.S. (FB); Four Lane Ends A.S. (FB) |
| 11.5.97 | C.A.S.T. 88 (FN) |
| 16.10.97 | GROCKLEMANIA |
| 18.5.97 | Isle of Wight A.S. (FB) |
| 7.6.97 | South Park A.S.S. (I) |
| 14.6.97 | Bristol Tropical A.S. (New Date)(FB) |
| 15.6.97 | Holton A.S. (FN) |
| 22.6.97 | Warrington A.S. (FS) |
| 29.6.97 | Seascale Junior Fishkeepers (FB) |
| 5.7.97 | Port Talbot A.S. (FB) |
| 20.7.97 | Bournemouth A.S. (FB) |
| 27.7.97 | Kent Association of Aquarist Societies (FB) |
| 24.8.97 | Cramlington A.S. (FB) |
| 24.8.97 | TYNE TEES AREA ASSOCIATION (FB) |
| 30/31.8.97 | FISHWORLD '97, DUNSTABLE (FB) |
| 13.9.97 | Hounslow A.S. (FB) |
| 12.10.97 | Solway A.S. (FS) |
| 25/26.10.97 | BRITISH AQUARISTS FESTIVAL, Bowdler, Manchester (FN) |
| 31/10/1.11.97 | SUPREME FESTIVAL OF FISHKEEPING, Weston |
| 2.11.97 | SUPREME CHAMPIONSHIP & OPEN SHOW (FB) |

Note to Society Show Secretaries:

The above dates are those available as FishWorld went to press. For the latest, most accurate dates and venue information (together with Trophy Associations, where applicable), please refer to the Quarterly Supplement issued by the FBAS giving details of Shows around the country. The Show Supplement is available, price 50p post paid from:

Show Information

Dept FW, 22 Flonsted Avenue, Wembley, Middlesex HA9 6DL
In order to provide the most complete service to all Societies, please communicate your Show Information to the same address.

Dear Reader

Welcome to the Spring issue of FishWorld. Just as, in hope, the seasons will spring into life once more, so too does FishWorld. We have exciting plans for readers in this and future issues.

First and foremost, every Editor's pet moan is lack of, or difficulty in getting, articles. From this issue we are delighted to welcome Malcolm Goss as Features Editor who, as you will soon see, has lost no time in gathering in some excellent reading matter for you to enjoy.

Secondly, another truly exciting development is the formation of the National Junior Fishkeeping Association. To co-ordinate the Juniors of the fishkeeping world will be no mean feat but you can be sure that they will have their own separate section in FishWorld and we warmly welcome any contributions they care to make. (Otherwise I'll put Malcolm on to them!).

There is also news of a new aquatic event for your 1997 Calendar and lots more for you to enjoy within these pages.

Dick Mills, Editor, FishWorld

Contributions for the next issue should be in hand no later than April 30th 1997.
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3

CONTENTS

| | |
|--------------------------------|----------|
| Show Dates..... | 1FC |
| Fishworld '97..... | 4 |
| From the Chairman..... | 5 |
| The Sexu Cichlid..... | 9 |
| A Riverbank..... | |
| Furnished Aquarium..... | 10-11 |
| FBAS Publications..... | 13 |
| Plans..... | 15/16/17 |
| The Garden Pond in..... | |
| Springtime..... | 17-18 |
| A Journey to India..... | 19-21 |
| KAAS Convention..... | 22 |
| New Junior Section..... | 23-26 |
| Spanning the..... | |
| Cloven Loch..... | 27-28 |
| Lake Stava..... | |
| South Africa..... | 29-31 |
| Breeding & Rearing..... | |
| Chromosome Arranges..... | 32-33 |
| The Green Guide in..... | |
| Austria..... | 34-35 |
| It's just a question of..... | |
| Multimedia..... | 36-38 |
| Writing for the Sounds..... | |
| of Summer..... | 39 |
| Life Cycle of a Jellyfish..... | 40 |
| Juditharomus ornatus..... | 41-42 |
| Cracklemoria '97..... | 43-44 |
| The Lament of a..... | |
| Catfish Keeper..... | 46 |
| Aquarian Advisory Service..... | 1BC |

A New Major Aquatic Event for 1997!!

FISH WORLD '97

SATURDAY and SUNDAY 30th - 31st AUGUST 1997

"FISHWORLD" magazine, in conjunction with the F.B.A.S. are holding the first ever multi-sponsored two-day aquatic event.

The Show is being staged at the **Queensway Exhibition Halls, Dunstable**, near Luton, Bedfordshire, off Junction 11 of the M1 motorway. The Halls are located in the town centre with ample car parking space. On Saturdays there is an Open-air Market next to the Halls, for those that may wish to couple a true aquatic experience with the chance of a shopping bargain.

Queensway Halls are purpose-built for exhibitions and are carpeted throughout on two floors. The Show will be displaying the theme "The Fish is the Star", with Furnished Aquaria and large aquaria displaying exotic fish. **National Koi Show** will be held on both Saturday and Sunday along with Trade support, plus the normal Open Show Classes (tropical and coldwater) on the Sunday.

Alan Shears, who has just returned from his trip to the Rio Negro in South America will be displaying his best personal photographs of the fish from the region.

If you, as an individual, would like to add to the Show either as a hobbyist or with a Trade display, please contact a Show Committee Member. All Clubs, Specialist Societies, Federations and Associations are welcome (Alan Benson - for Specialist Societies on 01708 630372, Paul Corbett for Society Displays on 01983 721246 and Peter Furze for Trade Enquiries on 0181 570 0934), but we do ask participants to remember our slogan "The Fish is the Star" i.e. Fish on every Stand please.

The Old Palace Lodge Hotel is within walking distance of the Show, located in the town centre. The Hotel is best described as "Heritage type" with large comfortable rooms.

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For more details of the event, please write to:-

Malcolm Goss
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From the Chairman

I would like to take this opportunity to say how much I am looking forward to being your Chairman again, but this is not just a personal satisfaction reaction to being successfully re-elected at the Annual General Meeting.

During the coming months, I am anticipating great strides forward in the aquatic Calendar and already there are new events that either have happened already or will happen within a few months time.

The big new event is, of course, **FISHWORLD '97** which will be held in Dunstable over the weekend of the 30th - 31st August. As someone who was heavily involved in **FISHWORLD '88** at Alexandra Palace, I am delighted that we have been able to bring such a prestigious aquarium-based Exhibition that much closer to London, an area which has been neglected in this respect for far too long. I would particularly like to thank all those giving support and encouragement to the event and can promise that with everyone's participation it will be an event that should become a regular spot on the Calendar.

Of course, it is not just those already established in the hobby that either make things happen or are to be catered for. It is also extremely encouraging (and to my mind a vital step to take) to see the formation of the **National Junior Fishkeepers Association**. All too often we are told that the juniors of today are the fishkeepers of tomorrow and yet, until now, nothing has been done to establish this group of aquarists into a coherent association, where they can feel that they are important in their own right, rather than being a mere separate section within a Society. We have excellent support from the Trade in this respect and look forward to building upon the foundations which have been laid.

I hope that Junior fishkeepers everywhere will rally to the Association — it's been formed expressly for them. They can write in to the new **Junior Section** in this magazine with all their problems; there will be Junior events organised around the country and, no doubt, us old 'uns will soon be learning much from these highly-motivated youngsters. I appeal to all Societies, Federations and Associations to support the fishkeepers of tomorrow — we will depend on them to keep our hobby going long after we've done our last water changes.

Looking forward to meeting you during 1997,

Joe Nethersell
Chairman FBAS

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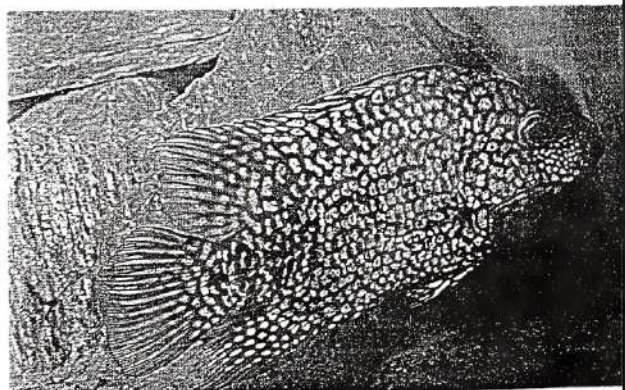
The **TEXAS** CICHLID

by Dr. Dave Schleser, Texas, U.S.A.

The cliché says that the grass is always greener on the other side. Perhaps if some people took the trouble to look at their own grass, they might find it incredibly green and beautiful.

A rare in point for aquarists is our so-called Texas Cichlid, *Cichlasoma cyanoguttatum*. A much neglected fish in the U.S. aquarium trade, it is a prized possession of European cichlid fanciers. Although it is indeed found in Texas as far north as the San Marcos River at its source in the town of the same name, the fish's common name is misleading. Actually, the major part of its range is south of our border. I have seen magnificent schools of this fish sporting themselves in the waters of the Mactezuma River in central Mexico.

The Texas Cichlid is to me one of the more beautiful of the large cichlids. Its pattern of multiple light blue dots on a neutral "fish grey" background is beautiful. The spots are evenly distributed over the entire fish and extend into the fins. Although not overly pugnacious for a cichlid, its large size can be a drawback to any aquarist who does not have room for very large tanks. Nine inch specimens are not at all unusually large. These fish are also pretty bad diggers and rooters.



A Riverbank Furnished Aquarium

by G. Goss

In this design simulating the secluded part of a river bank the variation in the plants foliage is its feature. As when planning your own garden it takes time to mature, in fact it may be several years. It will take many months to in fact find all the species of plants required. The plants listed are chosen for their growth rate, alternate size, foliage shape and colour. These can be substituted with other plants but take care their growth rate and size are the same. One feature of this layout is 3 species of plant growing out of a blanket covering plant. Here substituted plant must be researched very carefully. In this set up we have the minimum amount of lava rock or bog wood from which Anubias and Bolbitis grow from. The whole scene is Aquascaped through the format of the plants and the planting technique. This is often difficult to achieve. A small amount of front sunlight shining on the flanks of Congo tetras (*Phenacogammus Interruptus*) make this scene a sight to behold and the envy of all your friends. In the next of the furnished aquaria series we set about planting that 6ft aquaria after the catfish have gone.

Fish

- 10 Congo Tetra
(*Phenacogammus Interruptus*)
- 12 Harlequins (*Rasbora heteromorpho*)
- 6 Barbus baritoides
- 10 Parotocinclus sp.
- 10 Corydoras melini
- 2pr Papilichromis ramirezi

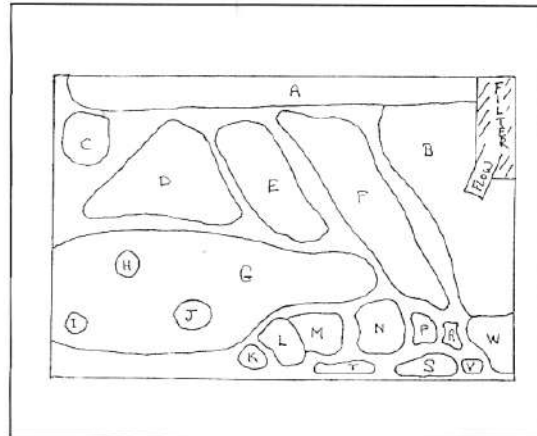
10

A Riverbank Furnished Aquarium

(continued)

Plants

- a. Vallisneria spiralis
- c. Hydrophila stricta
- e. Ammannia gracilis
- g. Anubias nana
- i. Nesaea (Red)
- k. Eleocharis acicularis
- m. Nymphaea lotus (Green)
- p. Nymphaea lotus (Red)
- s. Sagittaria platyphylla
- v. Sagittaria pusilla
- b. Bolbitis heudeloti
- d. Anubias barteri
- f. Anubias congenis
- h. Aponogeton crispus
- j. Cryptocoryne retrospiralis
- l. Sagittaria platyphylla
- n. Cryptocoryne costata
- z. Myriophyllum elatinooides
- t. Sagittaria pusilla
- w. Bacopa mannieri



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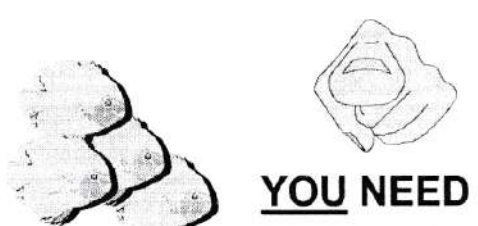
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13



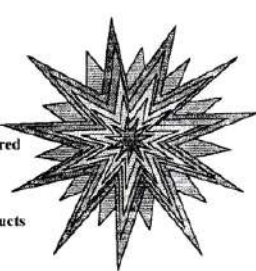
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Plants

The Genus *Echinodoras*

by C. Roe

The Genus *Echinodoras*

Echinodoras are often seen growing in the South American continent as a bog plant, being submerged when water levels rise, due to rainfall.

One member of the genus, *Echinodoras ranunculoides* (Linne), is distributed in Europe and Africa. A most useful Aquarium plant which grows well but likes soft water (rain) and on the whole the species are heavy feeders so a teaspoonful of garden soil or a few pellets of clay pushed into the area of the roots is most beneficial.

Echinodoras cordifolius (Linne) grisebach

Distribution Middle and southern states of North America

An ideal plant for the enthusiast who likes a "show plant". A strong grower, this plant is only suited to a very large aquarium. Beautiful broad egg-shaped leaves that can grow up to nine inches long and be seven inches wide. Mature plants will send up aerial leaves and will be accompanied by a flower stalk bearing large white flowers with yellow centres.

After flowering the aerial leaves can be cut off, then a profusion of submerged leaves will develop.



Plants

(continued)

Echinodoras paniculatus (micheli)

Distribution South America, from Ecuador, Venezuela and Brazil in the North to Bolivia and Paraguay in the South.

This well known Amazon sword plant comes in two forms *E. paniculatus* (var) *gracilis*, the narrow leaved sword plant. *E. paniculatus* (var) *rangeri* is the more well known broad leaved sword plant. Both types require medium to large aquaria to cope with the large (15" long) lanceolate pale green leaves with shaped pointed tips. Plant-lets develop from runners that can be weighted down and plants quickly grow into a size at which they can be separated from the parent plant. A depth of water of 15" to 24" is required with only moderate light if one is to keep the leaves free from algae.

*Echinodoras paniculatus* var. *Rangeri*.*Echinodoras paniculatus* Micheli.

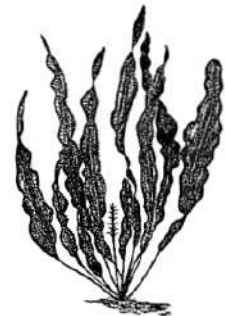
Plants

(continued)

Echinodoras martii (micheli)

Distribution Brazil, South America.

The J & S have highlighted this plant as one that can be easy to incorrectly describe. The crinkled leaves make this an unusual sword plant, but like most beautiful things it is very delicate and requires soft water. However once established will grow to a height of 18 inches with leaves being mid to pale green in colour, and rather translucent in appearance. Seeds can be readily set from mature plants and will germinate quickly. The plant is a slow grower and good feeding will be necessary. It will take two years before the plant becomes showing size.

*Echinodoras Martii* Micheli.

The Garden Pond in Springtime

This is the time of year when most gardeners are getting out their lawnmowers and, on the first fine day in Spring, giving the grass its first cut of the year. STOP!! Why not check the condition of the pond first? So often, the pond is forgotten until the rest of the garden has been tidied up.

Many water gardeners empty their ponds completely — fish, plants and water — in the Spring in the understanding that it will then look its best in summer. The correct time to do this is in late Autumn when all the leaves have fallen; however, if it wasn't done then, now is the time to remedy the omission and take some preventative action.

First check that all the fish are swimming correctly but allow for the fact that if the weather is still cold they will appear to be moving a little sluggishly. Check carefully between the plants (both submerged and marginals) for fish that may not have survived the winter. Undetected bodies of fish or frogs will soon contaminate the pond water for months to come.

Next, remove twigs and branches that may have fallen, or been blown into or onto the water; a large long-handled net will be ideal for removing any other floating debris and clearing the water surface. If you have been careful, and not been too violent in your net actions, the water should still

The Garden Pond in Springtime

(continued)

look clear and you will be able to see all the other leaves that have sunk to the bottom of the pond quite clearly! Again, with your long-handled net (an old one, if you have two) very carefully collect these leaves, a few at a time, moving the net very slowly; try not to scrape the bottom of the pond otherwise the sludge and debris will rise clouding the water — which will take hours to clear again! Take care not to accidentally catch any sluggish fish at this time.

Cut off any dead leaves and stalks from any Water-lilies you have, along with those from bog plants such as Iris and Reeds. At this time you may wish to thin out the oxygenating plants — *Eloidea densa* and Hornwort (*Ceratophyllum demersum*) — that grow in a floating mass in the pond. These must not be thinned too severely and thus upset the balance of the pond. Remember that plants are useful troops in the ongoing battle against the growth of algae. Whilst the water is, at the moment, clear within a few weeks as the sunlight gets stronger only pea-green water will be all you can see if you need to re-stock with oxygenators; always 'plant' them first in shallow water where under the encouragement of warmer, sunlight water they will grow away that much quicker than would have been the case if you have just tossed them into the pond to sink into its cold, dark depths.

If you have a fountain or waterfall that has not been running during the winter months, then this is the opportunity to service the pump. Disconnect the electricity supply from the mains and remove the pump from the pond. Check the wiring from the pump back to the supply point for defects. Clean and wash the pump checking wiring, seals and filters; remember to remove the impeller (with its attached magnet) from its housing and de-slime it thoroughly. Replace any worn parts and re-assemble the pump, adding a new pre-filter sponge if necessary. After returning the pump to the pond it is a good idea to check the pipework: look for kinks or leaks (especially in plastic hosing), either of which will affect fountain or waterfall performances. If you've got underwater lights in the pond, don't forget to clean all the accumulated debris and algae from the lenses, and replace any lamps that may have failed.

Of course, if your fountain or waterfall have been 'off' during winter then it is also likely that any external filtration systems (powered by the same pump) will also have been idle too. Servicing the filter medium, back-flushing the system is all very well but do bear in mind that the filter will not operate at its full efficiency immediately you restart it; the biological filter medium (especially) will need time to become re-established. You can hasten this maturation process by using one of the many 'filter maturation' products available from your dealer.

Top up (or refill) the pond with a garden hose and, just for this 'one off' event if it is possible, let the pond overflow for a few minutes, to clear and re-oxygenate the water.

As the winter has been extra cold, check for frost damage to the pond surrounds. Make sure that all paving is secure and re-bed loose stones if necessary.

Lastly, tidy up the marginal plants that are adjacent to the pond area. Turn over the bare earth and dig in all those dead leaves that you have removed from the pond. These will improve your soil for those new border plants that you may well purchase in the days ahead.

Now's the time to cut the grass, sit back and wait for those long summer days.

adding a new pre-filter sponge if necessary. After returning the pump to the pond it is a good idea to check the pipework: look for kinks or leaks (especially in plastic hosing), either of which will affect fountain or waterfall performances. If you've got underwater lights in the pond, don't forget to clean all the accumulated debris and algae from the lenses, and replace any lamps that may have failed.

Of course, if your fountain or waterfall have been 'off' during winter then it is also likely that any external filtration systems (powered by the same pump) will also have been idle too. Servicing the filter medium, back-flushing the system is all very well but do bear in mind that the filter will not operate at its full efficiency immediately you restart it; the biological filter medium (especially) will need time to become re-established. You can hasten this maturation process by using one of the many 'filter maturation' products available from your dealer.

Top up (or refill) the pond with a garden hose and, just for this 'one off' event if it is possible, let the pond overflow for a few minutes, to clear and re-oxygenate the water.

As the winter has been extra cold, check for frost damage to the pond surrounds. Make sure that all paving is secure and re-bed loose stones if necessary.

Lastly, tidy up the marginal plants that are adjacent to the pond area. Turn over the bare earth and dig in all those dead leaves that you have removed from the pond. These will improve your soil for those new border plants that you may well purchase in the days ahead.

Now's the time to cut the grass, sit back and wait for those long summer days.

A Journey to India

PART 2

John Edwards continues his sub-continental search for fish

I awoke the next morning with the mother of all hangovers, it appears that 2001 is one of India's most popular beers and is noted for its strength, this I can testify too. The weather looked good as I peeped out of the window, the sun was already high in the sky and not a cloud in sight. The airline had already called, our flight was due for take off at 11.40am. The problem with the TV set had also been settled, it appears that it never reached the cargo hold, the airport security intercepted a contractor's van, they had discovered it under a dust sheet along with a photocopy machine and, as they say, a number of people are helping police with their enquiries.

The plane duly touched down at Madras airport dead on time, the flight had been uneventful which was not surprising as it had only lasted 1 hour and 10 minutes. My next step was to make contact with a Fish Club but how would I do that? This question had occupied my mind on the flight from Bombay. I had enlisted the help of a fellow passenger who was a native of Madras; he was not aware of any shops selling live fish but suggested that I hire a taxi at the Airport but warned that before setting off I must barter about the price. That I had done and instructed the driver to take me to the biggest shop in Madras that sold fish. The traffic was horrendous, cars came at us from all directions as we approached the centre of Madras, we were compelled to slow down to a crawl; people spilled out from the pavement and across the road blocking our passage, the driver shouted and raised his fist to all that crossed our path. This sort of action only drew more attention to us, people peered in to see who was responsible for all this noise and, of course, decided that a westerner was there to buy their wares. Things got out of hand and it was only the intervention of some baton-wielding police that we managed to free ourselves. This was not what I had intended, to get any information at all would be impossible if every time I showed my face it

caused a riot. We retreated to the hotel, this required a bit more thought and a few more pints of 2001!

It was at the bar that I met a salesman dealing in chemicals, a small man in stature apart from his beer belly, it was he who suggested that perhaps I might go native and disguise the fact that I was not from those parts. This he had done while travelling around Scotland. So this was done with the help of the hotel staff, I duly set off again in a taxi whose instructions were again to find the largest fish shop in Madras. After a journey of about ten minutes we arrived at a small side-street that contained a market. Since the road was not wide enough for the taxi, the driver indicated to me that I would find the shop within the market. With some trepidation, I set off looking at the various shops, shops selling spices and highly-coloured materials. One particular shop caught my eye, a shop that would not be found on a high street in the UK, but obviously required in Madras, a shop selling second-hand false teeth! There they were, set out in rows all sorts of shapes, there, I thought, a good present for Jack the cobby who I remembered had given me a gummy grin when we had departed. I was beginning to despair in the throng of people (and the heat) that I could not search for long but that I couldn't be far from my goal.

19

A Journey to India Part 2

(continued)

The fact was my goal was many miles away. The shop that was staring me in the face was, in fact, a fishmonger's! Lined up on the slab were some very large Catfish and what looked like Bonv-lipped Barbs, fish over 5ft long. "Does anybody speak English?" I enquired. At first there was silence and then confusion. People threw their arms up in the air and started talking all at once. I stepped back out of the shop but before I could make my escape a young boy grasped my hand and gestured for me to follow him through the shop and out the back.

As my eyes grew accustomed to the dark I could just make out the figure of a man sitting cross-legged on the floor, several candles were lit and as the light improved it became clear to me that I was in the presence of a Brahmin (a Hindu Holy Man). This man clearly gave the impression of wielding some authority, whether this was because of his build, he was a much larger man than most of the Indian population that I had come across, or some other more sinister reason! He asked me to explain why I felt it necessary to disguise myself in his country. This took quite some explaining. I also took the opportunity to elucidate on my quest, he seemed somewhat surprised that anybody from the UK would be interested in his country. Could this be the person I was looking for, the eyes and ears of the fish world of Madras? It seems it was, for next we were escorted into a side room, lit with a mysterious blue glow. The glow came from nothing more than a computer which sat in one corner of the room, the Brahmin sat down and opened up a database and asked the computer to look for any listing with Aquarists in it. The machine was a little ponderous but came up with Southern India Aquarists, 8 Giri Road, I. Nagar Madras. At last, I was escorted back to my taxi, and as we made our way among th throng that is India the taxi driver explained

to me what he knew about our Brahmin. This man had gained great respect amongst the underworld of Madras and his network of spies was immense, any information that he received would be stored in the computer to be used at a later date.

The following day the taxi driver, whose name by the way was Vivac, picked me up at the Hotel just after dawn, he explained that the day would be very hot and we should start at once. As we turned the corner into Giri Road my heart missed a beat.

What I had expected to be somebody's house turned out to be a warehouse Southern India Aquarists was, in fact, a Fish wholesaler. Well, I had not travelled all that way not to go in and have a look. Luckily the owner, a Mr. Kumar, spoke very good English and told me that he supplied about 15 fish shops in Madras city, trading in freshwater, aquarium fish and plants. Their customers came from the affluent classes and no, there were no Fish Clubs functioning in Madras. As we walked around the vats and tanks there appeared the same familiar fish as we see in the UK - Swordtails, Platies, Mollies, Guppies and Angels. Further on Koi and Goldfish were to be seen.

Mr. Kumar also supplied many other cities in India and also exported to Singapore, Sri Lanka, Saudi Arabia and Finland. He went on to explain that Southern India Aquarists also ran two fish farms outside of Madras and, since that was where he was going next, would I like to accompany him? If I had known just what an arduous task it was going to be I would have immediately returned to the hotel!

We travelled for many miles over not too good a road (to put it mildly). The terrain was barren and very marshy, this made the air very heavy and sultry. We arrived just a little after noon at the larger of the two establishments, about ten acres I was

A Journey to India Part 2

(continued)

told, but this was hard to make out where the fish farm finished and the wilderness started. To the trained eye, you could tell the difference — the pools containing the fish were covered with wire netting and fish nets. It was explained to me that many predators also lived in the surrounding countryside, such as snakes, crabs, frogs and, of course birds. Nearly half of all production is lost to predators — they even engage special people to catch the snakes (I could think of one or two people that would get on very well in that job!). Also, to add to the problem of fish losses, the weather can be a problem. I was told it was not uncommon to have most of the fish swept away or the netting destroyed by what was described as heavy wind and rain. You can get insurance for this I was told, but the insurance company will only cover half the losses. I had not given up hope of coming across some obscure Barbs as Mr. Kumar had said that he had collected fish in Malaysia, Thailand and Sri Lanka but these fish turned out to be just Sharks.

Just a footnote —

Since our communication with Mr. Kumar there have been two cyclones in that region and it is possible that Southern India Aquarists may well have been swept away.

The fish farm also dealt in plants. These were mostly native Indian plants but from time to time plants were imported from Singapore and Sri Lanka for sale in India. It appears that fish exports from India are still very much a minor export as according to Mr. Kumar there are only five companies in India that export fish in a proper and scientific manner. These do not belong to any trade association and therefore cannot take up any causes affecting the industry. This led me on to my next question - had he access to anybody that could identify any odd ball fish that passed through his hands? I am afraid there was not, but he would enquire around Madras and let me know back in the UK.

Well, it was time to go. I had a long and tiring journey ahead of me. I thanked Mr. Kumar for his time and hospitality, and as the sun set my mind was drawn to thoughts of home.

21

KAAS CONVENTION '97

sponsored by the Federation of British Aquatic Societies
SATURDAY 15th March 1997
 Smithy's Hotel
 57 Norfolk Road, Cliftonville, Kent

The programme will be along the following lines:-

- 1.00 Open
- 1.20 Chairman's Welcome
- 1.30 Guest Speaker — Dr. Daryl Slobert — "Borneo Experience"
(Daryl is an American currently working at the Natural History Museum in London)
- 2.30 Refreshment break
- 2.45 Quiz
- 4.00 Guest Speaker — Mary Rauchenberger — "Rio Panuco Swordtails"
(Mary is Daryl's wife and is recognised, around the world, as one of the leading experts on livebearers)
- 5.00 Refreshment break
- 5.15 Auction of fish and Raffle
- 6.30 Buffet
- 8.00 Guest Speaker — Brian Walsh — "Fishkeeping — My Way"
(Brian's talk is complete with two audio/visual presentations)
- 9.00 Chairman's thanks and close

The times are, of course, approximate.

The cost for the Convention itself is £10.00 per person. Entry will be by Ticket only, obtainable in advance from: **Allan Best, 73 The Fairway, Rochester, Kent ME1 2LT** (Cheques or Postal Orders made payable to K.A.A.S.). For Friday and/or Saturday overnight accommodation at the Hotel please contact them direct on 01843 221980 where mention of the KAAS Convention should secure you B & B facilities at £22.50 per person per night.

There will be the usual 10-pin Bowling competition on Sunday morning.

JUNIOR SECTION

Attention all Junior Fishkeepers!!!

★ NATIONAL JUNIOR FISHKEEPERS ASSOCIATION FORMED ★

The Association, formed on 2nd January 1997, has the full support of the Trade, with such major names as **Rolf C. Hagen, Interpet, Aquarian, TFM Publications, Bullsseye Trophy Centres** and others, together with hobby groups and Societies. Its aims are to promote and further aquatic and other associated interests, and encourage the co-operation of individuals and groups of young people within the fishkeeping hobby.

Junior Fishkeepers, in the age range of 8 to 16 are able to join by completing a simple Application Form (see next page) and Membership is **FREE**. Members will receive the quarterly magazine "FISHWORLD". This publication presents articles written by hobbyists and will feature a Junior Section, specially added for the Association, to include Competitions and other items. They will also receive a Badge and Membership Card. There will also be, from time to time, additional features and Special Offers.

Those Junior fishkeepers who attended the Federation of British Aquatic Societies' Supreme Festival of Fishkeeping at Weston-super-Mare last November, will remember the very first NJFA Show held on the Saturday. We have been invited, by the FBAS, to hold our first NJFA Show at this year's Supreme Festival, so mark your diaries for Weston on the weekend of Friday 31st October to Sunday 2nd November inclusive. We hope to see more of you there this year joining in all the fun and games and, of course, showing your fish.

We have also been invited to participate in FishWorld '97 to be held in Dunstable on Saturday and Sunday 30th, 31st August; more details will follow on this event, however, we expect that for day visitors, any Junior Fishkeeper, wearing their NJFA Badge and showing their Membership Card, accompanied by a full-paying adult, will be admitted **FREE OF CHARGE**.

We want to make this Association work for you and help you, so if you have any ideas or questions please send them in to me for our feasibility review; if you have any questions about fishkeeping, send them in, any question which we publish in your Junior section of the FishWorld magazine will be answered by one of our Senior Hobbyists and you will receive a free gift.

Why not write in and tell us about your fishkeeping — do you belong to a local Club or Society? If so, what do you do there? Have you had a funny fishy experience — why not share it with us, so we can all have a laugh?

John Pell - General Secretary
 National Junior Fishkeeping Association
 44 Lakewood Drive
 Wigmore, Gillingham
 Kent ME8 0NS

23

NATIONAL JUNIOR FISHKEEPERS ASSOCIATION

If you would like to join the National Junior Fishkeepers Association, and are aged between 8 and 16 inclusive, then please fill in this Form and return it, together with a Stamped Self-addressed envelope to:

The Membership Officer, NJFA
 22 Flimsted Avenue, Wembley, Middlesex HA9 6DL

Surname: _____ Forenames: _____

Address: _____

County: _____ Postcode: _____ Date of Birth: _____

I am "I have been" / "I have not been" a member of a local Aquarist Society or Specialist Fish Society

What is the name of the Society? _____

Would you like information on: Local Societies Yes/No? _____

National Specialists Yes/No? _____

What species, or genera, of fish are you interested in: _____

Is your fishkeeping in: Aquaria: _____ Ponds: _____ Both: _____

Which other associated aspects of fishkeeping interest you? _____

Water Lilies: Filtration: Plants: Fish Shows:

Fish Exhibitions: Other (please specify): _____

Signature of Parent or Guardian: _____ Date: _____

(*delete as appropriate)

FOR OFFICIAL USE

| Date Received | Membership No. |
|---------------|----------------|
| | |
| | |
| | |

DO IT THIS WAY!!

Hints for Junior Fishkeepers

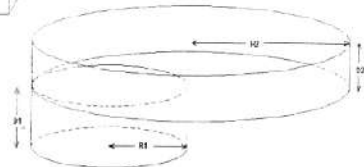
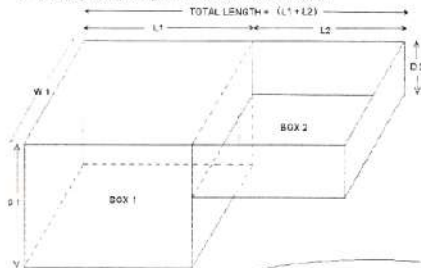
Calculating amount of water in ponds

To find total volume of a pond with differing depths, divide the pond into two convenient sized "boxes". Calculate the volume of each "box" and add together for the complete volume. Notice in this example the width of the pond (W1) is the same along the whole length.

Example: Volume of BOX 1 = L1 x W1 x D1
 Volume of BOX 2 = L2 x W1 x D2

Add two Volumes and

1. Multiply by 6.25 (if using feet as units) for gallons total or
2. Divide by 1000 (if using centimetres as units) for litres total



Volume of circular pond = $R \times R \times \frac{\pi}{2} \times D$ where R = radius, D = depth

To find total volume of circular pond with deeper section, divide pond into two separate cylinders (C1 and C2), calculate separate volumes, then add together.

Example: Volume C2 = $R2 \times R2 \times \frac{\pi}{2} \times D2$

Volume C1 = $R1 \times R1 \times \frac{\pi}{2} \times D1$

Add both volumes for total, then multiply or divide as before according to units used for gallons or litres.

FISHING FOR WORDS — 1

sponsored by Rolf C. Hagen & Tetra

C I C H L I D A N I O
L S A R O D Y R O C Z
I Y A X B J H S I F T
A W C W D V U E T Y A
T O N A T I O N A L C
D B F D L O G U I L F
R N I C A R A H C O T
O I S G S G A H O M R
W A H R U G I Q S J P
S R E P E E K H S I F
K O P N G O U R A M I
L Y T A L P H N E O N

Using the above grid as a typical Wordsearch, see how many of the following you can find: **Catfish, Characin, Cichlid, Corydoras, Danio, Fin, Goldfish, Gourami, Guppy, Hagen, Molly, Neon, Platy, Rainbow, Swordtail** and the name of your National Junior Fishkeepers Association. Draw a line around each of the words in the grid, enclosing only the letters used, and send this whole page to:

National Junior Fishkeepers Association,
FISHING FOR WORDS — 1
44 Lakewood Drive
Wigmore, Gillingham,
Kent ME8 0NS

Entries must be received by 17th May 1997. The first three correct entries out of the bag will each receive a **HOLDALL** and **FISH FOOD** and the next seven correct entries will each get **TUBS OF FISH FOOD**. Winners names will appear in a future issue of *FishWorld*.

Please complete the following so we know where to send your prizes, should you be a lucky winner.

Surname: _____ Forenames: _____

Address: _____

County: _____ Postcode: _____ Age: _____

If you would like to send your membership Application Form in the same envelope to save postage, you may do so and it will be passed on to the Membership Officer.

26

Spawning the Clown Loach

These fish, with their slender shape, fast-moving life and bottom habits are familiar to us all. They prefer to hide in any cave-like structures provided for them.

The Clown Loach is possibly the most popular fish that is bought for the community aquarium with its striking markings. However it often gives us the most problems, as it is very susceptible to disease, particularly Ichthyophthirius, white spot. This loach likes high temperatures, 27-30°C (80-86°F) and is all too often allowed to get cold whilst being shipped around the trade. The water should be slightly alkaline to reproduce their natural conditions. Although these fish are scavengers and sift through the aquarium gravel in search of food, they should receive their own food and not be expected to live on the excess food left by other fishes.

Loaches have rarely spawned in the aquaria, mainly because the natural conditions have not been created for them. Werner Nowak gave this report:-

A few months ago I bought six Clown Loaches from a friend of mine. He had kept them in a 320 litre (70 gallon) aquarium for almost five years. The fish were very shy and were hardly ever seen, so when the tank was stripped out he gave them to me.

When I received the fish they were between six and seven inches long. Two of them were very heavy-bodied while the other four were thinner but longer. I decided to house the fish in a 140 litre (30 gallon) tank where a pair of discus had spawned only a few weeks earlier. The tank was planted with three large Amazon Sword plants (*Echinodorus*) plus there were many pieces of bogwood. The chemical make-up of the water was pH=6.2, D_H=2.0 and a nitrite level of less than 0.05. The water temperature was maintained between 29 and 30°C (84-86°F). An outside power filter was used and the filter medium consisted of a commercial brand of aquarium peat and polyester filter fibre. As soon as the loaches were placed in their tank, they disappeared into the plants and bogwood. The average observer would have thought the tank was uninhabited. Each evening I would prepare a mixture of Tetra-min staple food, beef heart, spinach and shrimp pellets. This was placed to the front of the tank with the lights on. I saw not a hint of a loach even when the light was turned off. However, next morning it was all gone. The tank got the name "Ghost Tank".

One one occasion, I turned out the lights and watched with the dim light of torch. They moved through the tank in groups of three searching for food. As soon as the main tank lights were switched on — the fish were gone. They had vanished in an instant. One day I needed an unusually large plant so I decided to remove one of the *Echinodorus* from the "Ghost tank". As I began to uproot the plant, a cloud of mulin rose into the water. It began to settle after a few seconds, and I was amazed to see 10 to 15 small fish scatter wildly around the tank. I dropped the plant immediately and began to search for the small fish. A close examination revealed very young clown loaches hiding deep in the roots and crowns of the two plants that had not been disturbed. After seven weeks, I found 39 young fish averaging 3/4" in total length.

Sexes are very similar, but mature, undamaged males generally have longer points to the dorsal and anal fins. In some "races" of this fish, old males develop a large, humplike protuberance on the forehead. I have never found such a formation to develop in Texas specimens.

Breeding these fish is not difficult provided you use a large aquarium and provide lots of hiding places. Often it is the male that takes the brunt of the damage. Females are often much larger than the males. All extremely large specimens I have collected have been females. The Texas cichlid's colouration is always handsome, but during breeding it really turns on the show. The front half of the body becomes a pearly white, over which

27

Spawning the Clown Loach

(continued)

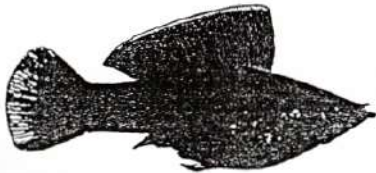
sparkles a multitude of star-like light green dots. In contrast, the rear portion of the body is brilliantly striped in black and white! The green dots are to be found within the light stripe portions. So distinct is the demarcation of colouration between the front and rear of the fish, that it appears to be made of a graft between two separate species! Females tend to be slightly more brightly coloured.

These fish are not cave spawners, but choose a solid object, such as a smooth rock, or more often just fan a depression in the river bottom and lay their eggs. In their natural habitat, they are social spawners and large beds composed of many breeding pairs are often observed. This behaviour is similar to many native Lepomis sunfishes. Any aquarist who has ever seen the San Antonio zoo must have noticed the enormous mixed breeding groups of the Texas cichlid and the naturalized *Tilapia mossambica* in the spring waters of the San Antonio River. These fishes are as

tame as pool carp and greedily rush toward anyone who offers them food. Spawns are exceedingly large. Eggs are large, oval and amber in colour. The fish are generally excellent parents and the young are easily raised.

Temperature preference is 70 to 80°F. Just because its range extends into central Texas is no reason to assume that it likes cold water. The San Antonio and San Marco Rivers are formed from giant springs, and even though freezing winter air temperatures are not uncommon, the headwaters of these rivers stay an even 74°F for all twelve months of the year. Water is hard and alkaline.

A bit of information that might be of interest to aquarists is that within the same waters live some of the most beautiful sailfin mollies, *Poecilia [Mollienesia] latipinna*, both in the green and marbled forms. Five inch long fish are not uncommon, and the colouration is brilliant. Dorsal fins vary from large to huge!



28

Lake Sibaya South Africa

by Malcolm Goss

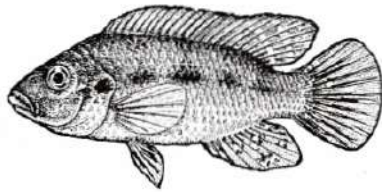
Lake Sibaya is a closed, natural, freshwater lake situated on the seaward edge of a broad, coastal plain in northern Kwazulu, South Africa. A row of high forest coastal dunes separate the lake from the sea.

The lake surface area is approx. 65sq.Km, and is 21m above sea level. It consists of a large main basin which leads into two smaller basins forming into an 'L' shape. The maximum depth is 40m, the shores are sand with no rock apart from isolated outcrops of ironstone on the north-east shore of the main basin. Surface level is subject to considerable fluctuations dependent on local rainfall, runoff and seepage, and often varies between 3 and 5m. These changes have a profound effect on the nature of marginal and littoral habitats, as extensive areas of shoreline are gently sloping and therefore readily inundated. Open water surface temperatures vary between 18 and 28° whereas shallow waters range between 16 and 36° — oxygen levels are high at all depths.

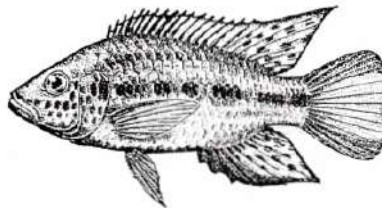
At low lake level, extensive barren sandy beaches with shallow pools are characteristic of the gently sloping shores. On the fringes of more steeply sloping, and sheltered shores, the plants *Phragmites mauritanus* with *Scripus littoralis* are present. At high lake level marginal beaches, pools,

adjacent grassland, forest fringes are inundated with extensive well vegetated pools flooding marginal grassland. These pools persist from year to year until the lake level recedes again, unlike the flooded margins of many rivers inhabited by *Clarias gariepinus* which are spawning areas and exist seasonally. At high lake levels adjacent swamps are joined to the main lake where many semi-aquatic plants become established. They include *Andropogon amplexans*, *Imperata cylindrica*, *Cladium* sp., *Juncus kraussii*, *Panicum meyerianum*, *Eragrostis capensis* and *Harpochloa* sp. These sheltered shallow areas provide cover for many fish, the most abundant being *Alocheilichthys katangae*, *Sarotherodon mossambicus* and *Barbus plaudinosus*. *Pseudocraniladus philander*, *Tilapia sparrmanni* and *A. katangae* are found in deeper pools. At low lake levels where there are terraces, *S. Mossambicus* are the only fish found in daylight hours in large numbers. At night their place is taken by *Clarias gariepinus* and *Glossogobius aureus*.

29



Sarotherodon mossambicus (female)
Plentiful in Lake Sibaya, Africa.



Sarotherodon mossambicus (male)
Plentiful in Lake Sibaya, Africa.

Lake Sibaya South Africa

(continued)

Gradual sloping habitats replace terraces on windward shores and these areas have an inshore curtain of plants, being *S. littoralis*, *Phragmites mauritanus* and *Typha latifolia*, with beds of submerged *M. spicatum*, *Potamogeton pectinatus*, *Ceratophyllum demersum* existing in deeper water beyond the influence of wave action. Substrates consist of compacted sand with a thin layer of flocculent detritus and Macrophyte debris.

The fish found is the same as that of the terraces, with the addition of *Marcusenius macrolepidotus* and, rarely, *Labeo molybdinus*. Catfish occupy definite zones in Lake Sibaya according to their size, the major trend being that those smaller than 200mm inhabit well vegetated inshore areas, larger catfish inhabit more open and deeper waters. Small catfish occupy inshore areas this is where they find their food requirements which are in the main invertebrates, and also seek

the protection from *Clarias* which are known to be cannibalistic. Adult *Clarias* also migrate into swamp areas to spawn — this forms a dual purpose, as fish-eagles, *Haliaeetus vocifer* readily feed on catfish in open water of the lake. Nile crocodiles, *Crocodylus niloticus* also prey on *Clarias gariepinus*.

After collecting 54 skulls from known crocodile feeding grounds, their total lengths when alive varied from 230 to 620 mm. Catfish are more efficient feeders on cichlids at low light intensities, especially in shallow water, where one can see them operating at a pack, and shepherding cichlids into shoals; upon reaching shallow water they set about eating them before returning to the lower depths of the deeper water. Other fish found in Lake Sibaya are *Tilapia rendalli*, *Barbus viviparus*, *Clarias theodorate* and *Clarias multispinnis*. This added to the already mentioned species totals 11 in all.

Letter to the Editor from :Briaa Sell, Chairman of West Cornwall Fishkeepers.

This is the first letter that we, as a society, have written to "FishWorld" magazine and it is unfortunate that it concerns a problem that has occurred twice in the last two years.

The problem concerns the renting of videos from the FBAS library. Earlier this year we decided to rent a video. This video was to be "The German Experience", a cheque was sent off on the 7th June this year and cashed on the 17th June 1996. The society had requested plenty of warning for the hire of these videos which was fair comment and this was duly given as our screening date was to be 13th September 1996.

Once the video had been booked the committee advertised that this video was a forthcoming attraction, as is our normal practice. Our programmes are decided on at least 3 months in advance, this gives members a chance to arrange their schedules and for members participating in the programme to prepare their talks.

On the week leading up to the 13 September my wife and I were on holiday but on arriving home we found that the video had not arrived. After several panic phone calls to other committee members a different programme was arranged for the evening. Several members expressed severe disappointment at not seeing the video and this was echoed by all the committee members. Another comment was what do the FBAS do for us anyway! In a way, this was harder to defend because the times that we have asked for the FBAS Show Stand to be in attendance at our Open Shows has been met with a negative response. One reason given is the distance involved. All I can say to that is that we are members of the FBAS and have been for the past 20 years.

Spawning the Clown Loach

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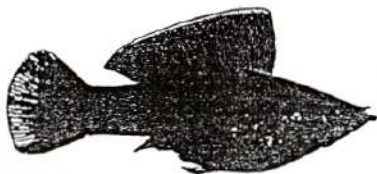
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These fish are not cave spawners, but choose a solid object, such as a smooth rock, or more often just fan a depression in the river bottom and lay their eggs. In their natural habitat, they are social spawners and large beds composed of many breeding pairs are often observed. This behaviour is similar to many native Lepomis sunfishes. Any aquarist who has ever seen the San Antonio zoo must have noticed the enormous mixed breeding groups of the Texas cichlid and the naturalized *Tilapia mossambica* in the spring waters of the San Antonio River. These fishes are as

tame as pool carp and greedily rush toward anyone who offers them food. Spawns are exceedingly large. Eggs are large, oval and amber in colour. The fish are generally excellent parents and the young are easily raised.

Temperature preference is 70 to 80°F. Just because its range extends into central Texas is no reason to assume that it likes cold water. The San Antonio and San Marco Rivers are formed from giant springs, and even though freezing winter air temperatures are not uncommon, the headwaters of these rivers stay an even 74°F for all twelve months of the year. Water is hard and alkaline.

A bit of information that might be of interest to aquarists is that within the same waters live some of the most beautiful sailfin mollies, *Poecilia (Mollienesia) latipinna*, both in the green and marbled forms. Five inch long fish are not uncommon, and the colouration is brilliant. Dorsal fins vary from large to huge!



Lake Sibaya South Africa

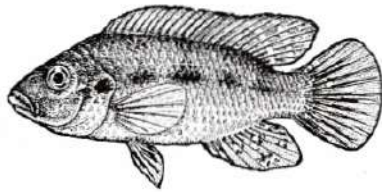
by Malcolm Goss

Lake Sibaya is a closed, natural, freshwater lake situated on the seaward edge of a broad, coastal plain in northern Kwazulu, South Africa. A row of high forest coastal dunes separate the lake from the sea.

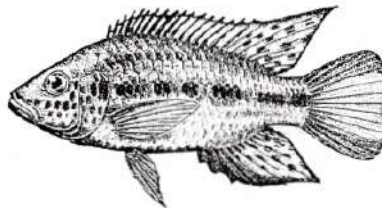
The lake surface area is approx. 65sq.Km, and is 21m above sea level. It consists of a large main basin which leads into two smaller basins forming into an 'L' shape. The maximum depth is 40m, the shores are sand with no rock apart from isolated outcrops of ironstone on the north-east shore of the main basin. Surface level is subject to considerable fluctuations dependent on local rainfall, runoff and seepage, and often varies between 3 and 5m. These changes have a profound effect on the nature of marginal and littoral habitats, as extensive areas of shoreline are gently sloping and therefore readily inundated. Open water surface temperatures vary between 18 and 28° whereas shallow waters range between 16 and 36° — oxygen levels are high at all depths.

At low lake level, extensive barren sandy beaches with shallow pools are characteristic of the gently sloping shores. On the fringes of more steeply sloping, and sheltered shores, the plants *Phragmites mauritanus* with *Scripus littoralis* are present. At high lake level marginal beaches, pools,

adjacent grassland, forest fringes are inundated with extensive well vegetated pools flooding marginal grassland. These pools persist from year to year until the lake level recedes again, unlike the flooded margins of many rivers inhabited by *Clarias gariepinus* which are spawning areas and exist seasonally. At high lake levels adjacent swamps are joined to the main lake where many semi-aquatic plants become established. They include *Andropogon amplexans*, *Imperata cylindrica*, *Cladium* sp., *Juncus kraussii*, *Panicum meyerianum*, *Eragrostis capensis* and *Harpochloa* sp. These sheltered shallow areas provide cover for many fish, the most abundant being *Aplocheilichthys katangae*, *Sarotherodon mossambicus* and *Barbus plaudinosus*. *Pseudocraniladus philander*, *Tilapia sparrmanni* and *A. katangae* are found in deeper pools. At low lake levels where there are terraces, *S. Mossambicus* are the only fish found in daylight hours in large numbers. At night their place is taken by *Clarias gariepinus* and *Glossogobius aureus*.



Sarotherodon mossambicus (female)
Plentiful in Lake Sibaya, Africa.



Sarotherodon mossambicus (male)
Plentiful in Lake Sibaya, Africa.

Lake Sibaya South Africa

(continued)

Gradual sloping habitats replace terraces on windward shores and these areas have an inshore curtain of plants, being *S. littoralis*, *Phragmites mauritanicus* and *Typha latifolia*, with beds of submerged *M. spicatum*, *Potamogeton pectinatus*, *Ceratophyllum demersum* existing in deeper water beyond the influence of wave action. Substrates consist of compacted sand with a thin layer of flocculent detritus and Macrophyte debris.

The fish found is the same as that of the terraces, with the addition of *Marcusenius macrolepidotus* and, rarely, *Labeo molybdinus*. Catfish occupy definite zones in Lake Sibaya according to their size, the major trend being that those smaller than 200mm inhabit well vegetated inshore areas, larger catfish inhabit more open and deeper waters. Small catfish occupy inshore areas this is where they find their food requirements which are in the main invertebrates, and also seek

the protection from *Clarias* which are known to be cannibalistic. Adult *Clarias* also migrate into swamp areas to spawn — this forms a dual purpose, as fish-eagles, *Haliaeetus vocifer* readily feed on catfish in open water of the lake. Nile crocodiles, *Crocodylus niloticus* also prey on *Clarias gariepinus*.

After collecting 54 skulls from known crocodile feeding grounds, their total lengths when alive varied from 230 to 620 mm. Catfish are more efficient feeders on cichlids at low light intensities, especially in shallow water, where one can see them operating at a pack, and shepherding cichlids into shoals; upon reaching shallow water they set about eating them before returning to the lower depths of the deeper water. Other fish found in Lake Sibaya are *Tilapia rendalli*, *Barbus viviparus*, *Clarias theodorae* and *Clarias multispinnis*. This added to the already mentioned species totals 11 in all.

Letter to the Editor from :Briana Sell, Chairman of West Cornwall Fishkeepers.

This is the first letter that we, as a society, have written to "FishWorld" magazine and it is unfortunate that it concerns a problem that has occurred twice in the last two years.

The problem concerns the renting of videos from the FBAS library. Earlier this year we decided to rent a video. This video was to be "The German Experience", a cheque was sent off on the 7th June this year and cashed on the 17th June 1996. The society had requested plenty of warning for the hire of these videos which was fair comment and this was duly given as our screening date was to be 13th September 1996.

Once the video had been booked the committee advertised that this video was a forthcoming attraction, as is our normal practice. Our programmes are decided on at least 3 months in advance, this gives members a chance to arrange their schedules and for members participating in the programme to prepare their talks.

On the week leading up to the 13 September my wife and I were on holiday but on arriving home we found that the video had not arrived. After several panic phone calls to other committee members a different programme was arranged for the evening. Several members expressed severe disappointment at not seeing the video and this was echoed by all the committee members. Another comment was what do the FBAS do for us anyway! In a way, this was harder to defend because the times that we have asked for the FBAS Show Stand to be in attendance at our Open Shows has been met with a negative response. One reason given is the distance involved. All I can say to that is that we are members of the FBAS and have been for the past 20 years.

Breeding and Raising *Ctenopoma Ansorgei* by Malcolm Goss

Most of us keep some form of Gourami or a member of the family of fishes called *Anabantidae*. These are called "Labyrinth Fishes" because they have evolved a supplementary respiratory organ that enables them to breath atmospheric air. These popular fish come mainly from the Far East, however the *Genus Ctenopoma*, come from Africa.

Many of these species seem somewhat the same, looking and swimming like a vertical brown leaf. There is always the exception and *Ctenopoma ansorgei* is it, being the most beautiful and also one of the smallest. *C. ansorgei* is a beauty that is striped with bright blue and red vertical bars that extend into the dorsal and anal fins. It has a somewhat snake-like appearance growing to almost three inches in length.

Like all *Ctenopoma* they have a liking for live food and that means they should not be kept with small fish, their eyes never losing sight of their prey. In an unbelievable quick lunge its gone. Live food they prefer, but will eventually learn to take dried foods. Plenty of plants in their aquaria should be provided as they like to hide during the time the lights are on and come out in more shaded light.

I placed a pair of *C. ansorgei* in a 18" x 10" x 10" tank with the bottom covered with small pebbles and a flower pot to provide a hiding place for the female. The male was very aggressive and chased the female when she came out of hiding. There was no air or filtration in the tank as

anabantids prefer still water. The water was filtered rainwater and I added a blackwater tonic so that the water was a very light amber colour, temp 80°F. Into the tank I placed approx. 8 pieces of polystyrene cut into 1" cubes along with some floating plant.

On the second day the male built his bubble nest within the floating debris, the nest was very shallow and skimpy. I swamped the tank with Daphnia and Dragonfly larvae (it was the middle of summer). The female was slow to accept the male's nest and it usually broke up before she came anywhere near. When she was ready she swam up under the nest and tapped him on his side, it was like he couldn't believe his luck. He then circled round her with his fins spread out and the brilliant colours all showing, she slides up to him and they embrace, quite like Bettas (Siamese Fighting Fish). After breeding bettas many times it was marvellous to see how patient a male *C. ansorgei* can be. The male even reverses his direction and allows the female to try the embrace from the other side, a true lover. Embracing and drifting down through the water, eggs and sperm are expelled, the eggs float to

Breeding and Raising *Ctenopoma Ansorgei* (continued)

the surface. By the end of spawning, the nest was broken, but the male made no effort to repair it. I suppose it did not seem too important as the eggs float anyway. This is where the floating debris come in handy.

By this stage the parents had started eating the eggs, so I quickly caught them. I had about 50 eggs left, they were hard to see as they are clear in colour. 25 of the eggs hatched, the fry are light brown in colour but can only be seen clearly with a magnifying glass looking like the bristles of a nail brush.

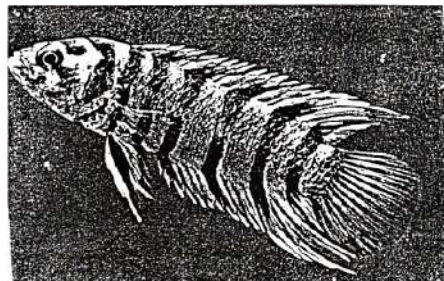
Two days after hatching they went to the bottom hiding between the pebbles and are even harder to see. I fed them hard boiled egg yolk squeezed through a fine muslin net. After ten days the fry were swimming mid water and I started feeding baby shrimp. Now is

the time to set up a small box filter with a gentle flow of bubbles, and also to siphon off a small amount of water to remove mull. After 20 days the fry started taking air from the surface.

A tight glass lid is now a must even using sellotape to seal gaps around the air pipe intake of the filter so that the air that they breathe is exactly the same temperature as their body. Draughts at this stage kill the fry of most Labyrinth fishes, so take care.

Now nearly a month old they are fed on small daphnia, brine shrimp, and very fine flake food. The fry, like their parents, are better fed when you are just about to turn the top lights off.

It takes a lot of time and patience to raise *Ctenopoma ansorgei* but very rewarding for the aquarist who wants to achieve something special.



The Green Guide in ... Australia!

by Nora Green, Tameside, A.S.

Because of the long flight, I desperately wanted a window seat, so we arrived at the airport 4 hours before take off to find that most people had checked in hours ago; therefore, Hubby and I were lucky to get seats together!!

Twenty four hours on a plane is a long time, when sat in front is someone constantly sniffling; while behind we have an old man with Alzheimers, who wanted to stand when he should be sitting and visa versa.

We arrive in Sydney, weary, hot, but happy. I spend the next hour watching hubby doing his war dance singing, "It always happens to me."

Later that evening, when I admitted I'd put the wrong labels on the cases, Hubby threw another wobbly. Fortunately, after a few phone calls our luggage was found and delivered instead of being returned to our home address!

The end of the first week we flew up to Queensland, then endured hours of being tossed about in a 4 wheel drive, en-route to Fraser Island which is the biggest sand island in the world, yet is completely covered by rain forest. In the middle sits a lake, so acid nothing can live in it apart from one fish.

Our guide said we could swim, even drink the water, so in the 40° midday sun I stripped and went in search of the fish. Hubby waded in up to his knees and found it; we spent the next

half hour filming this tiny white fish, which is about 2cm long and so docile you could pick it up. Our guide knew everything about the flora and fauna, but unfortunately knew nothing about the fish apart from calling it an Acid Fish.

We arrived back at our apartment late that evening, I with a very sore back where the sun had penetrated the clear water and boiled me; plus a few Mozzie bites.

The following day we went into the Noosa Everglades, where we discovered that even though I was covered in Airoguard, the Mozzies wouldn't leave me alone.

Back in Sydney, ill but refusing to admit it, I increased the dose of pills and lotions as we drove up to Port Stevens to see the dolphins. The temperature now over the 40° — at every opportunity I would soak my swollen body either in the sea or under a cold shower.

The boat which took us out into the bay had a net fastened to the side in which you could lie; at our own risk! Everyone who braved the net, once the boat had stopped, wore wet suits or jeans and tee shirt; one person wore a swimming costume!

The Green Guide in Australia!

(continued)

Lying still, hand outstretched, the dolphins came so close. When they swam away we went in hot pursuit, much to the amusement of everyone, like Hubby who had stayed on deck filming. However, their attention was soon focused on the idiots in the net who were being tossed about like chips in a basket. The net was nylon, the knots were hard and rough, so I emerged from that trip with my sun burn beret, my nails broken and with rope burns on my bum. I didn't even touch a dolphin ...

Back in Sydney and driving an old banger supplied by my uncle so we didn't look like tourists; we drove out to the Warragamba Dam, where we would see fish bigger than the Loch Ness Monster. There we were attacked by millions of flies and had to make a hasty retreat. Instead we made our way to a river in the bush, which turned out to be a lot further than we anticipated. There our car broke down and Hubby got really mad because I was filming his war dance instead of doing something useful! With the help of a Frenchman and a Vermin Control officer, we got back to civilization and started to prepare for our Christmas dinner on the beach.

I didn't get burned, but while trying to surf I was picked up by a 'whip cord' or something silly and dumped in six inches of water on my coccyx.

The last day of our stay was very painful, when our fishkeeping friends took us up into the Blue Mountains to see some Rainbows which lived in a remote river.

The rough 4 wheel drive on Fraser Island was nothing compared to this. Conversation was impossible apart from the occasional, "How's your bum Nora?"

On route we stopped at Kanangra Walls, which is the edge of a sheer cliff face that suddenly appears out of the bush; we had been warned to stay behind our friend because of this, but we were promised the most breathtaking view on earth. Not being very keen on heights and even though we emerged from the scrub a few yards from the edge, instead of looking where I'm putting my feet I watch the edge; get my feet tangled in the scrub and slide face down the slope; I also sprained my ankle ...

Packed in ice from the Eski, we continue our journey in search of the Rainbows, over the roughest part of the route, trying not to bounce up and down on my sore bum, but with only one foot to steady me.

We didn't see any fish, because for the first time in living memory; in the middle of an Australian summer, it snowed in the mountains ...

Phil as well as keeping fish is a keen fisherman so had brought along his rod. I was persuaded to have a go and my first cast was perfect; I could have been born with the rod in my hand. I didn't see where the next one landed, but after Phil removed the hook from his shoe we decided to call it a day.

We did get a window seat flying home but it was dark all the way. I had 2 litres of Whisky over the limit; because it was a 'bargain'. Wrapped in my undies were seeds, bits of plants and a cactus ... I have a scabby face, I can hardly walk and Hubby instructs me to stroll unobtrusively through customs!! We were met by friends who greeted me with, "My God, what happened to you?"

We did see some lovely fish — in Macquarrie's Underwater World, up in Queensland, so the next time we go we are going to visit all the Sea Life Centres!!!

35

It's just a question of Multi-media

Say 'multi-media' today to anybody and you'll likely to be inundated with talk about computers, CD-ROMS and the like. However, there is an alternative, or parallel, counterpart in the aquatic world as many modern powerfilters can make use of a wide range of differing filter mediums or — multi-media.

Straining or trapping media

The most basic way of removing suspended matter from the aquarium (or pond) water is to pass it through some form of medium which strains the offending material out and passes on the water back to the aquarium. Naturally, there is a limit as to how small a particle can be removed as, unfortunately for pond owners, no material has been found yet which is dense enough on one hand to remove 'greenness' from water yet not too dense to stop the water running through it on the other!

Materials which are used in this 'mechanical' filtration process include man-made fibres worked into the shape of Filter Wool or Floss (the modern equivalent of the old-fashioned — and often dangerous — glass wool) and open-celled sponge (often referred to as foam) material, in several varying densities. Foam material is usually provided in sheet or block form depending on where it is to be used.

These straining materials can usually be re-used once the offending matter

has been washed out of them but be sure to sue some aquarium or pond water to do the rinsing to avoid killing off any beneficial bacteria which might have set up home on the material (see Biological Filtration).

Pond filtration systems use brushes in the initial chamber of an external filter to remove rubbish from the incoming water and may well be situated above a settlement chamber down into which heavier particles settle to be flushed away later. There is a form of pond filtration which acts in a mechanical way which has no filter medium in it at all; the vortex filter is a deep cylindrical and cone shaped device and the water introduced into it at an angle so that it rushes around the outside like a "Wall of Death" motorcycle. The heavier debris falls down the middle to the bottom from where it can be removed simply by opening a tap.

Chemical filtration media

Not all visible water pollutants are suspended in the water, that yellow

It's just a question of Multi-media

(continued)

colour which develops in old aquarium water is actually dissolved in the water and no amount of filtering through filter wool will remove it. Here, another filtration method is used — 'chemical' filtration. The most commonly-used material used here is carbon (also known as charcoal). The basic material is treated using very high temperatures which creates a very porous material giving a huge surface area. As the water passes through and over the material, pollutants stick to the surface of the carbon by a chemical action called adsorption (notice the 'd' in the spelling rather than a more expected 'b').

Whilst carbon does a very effective job it does have one drawback — it is not fussy over what it removes! For this reason, it is advisable to remove any carbon filtration from the aquarium whenever treatment for disease is to be used, as any medication put in the water will probably be removed by the carbon before it gets a chance to work on the illness! Of course, once the illness has been cured then there is no problem in re-installing the carbon filtration — here it will help to make sure all the medication has been cleared from the tank. Carbon can be used as a separate medium or it can be incorporated as a backing layer on to a filter-floss pad, or impregnated into foam blocks.

Carbon has a finite life and cannot be re-used. To test if it has passed its usefulness date, add a coloured dye (methylene blue, malachite green etc) to a test tube of water, add some carbon and shake. If the colour disappears there's life in the old stuff yet!

In addition to removing dissolved materials from the aquarium or pond water, chemical filtration media might be also those substances used to deliberately change the actual chemistry of the water itself — to make it more acidic or more alkaline, or to soften or harden it. Substances may include peat or peat moss, zeolite and other exchange resins. The use of these substances may be used in filters plumbed into the incoming water supply or in re-circulating power filter systems installed in the aquarium. Be warned, do not tamper with the water chemistry unless you fully understand what you are doing — and never expose the fish to any sudden changes in water quality — always acclimatise them to new conditions as slowly as possible.

Biological filter medium

The materials used in this form of filtration do not have a direct effect on the water quality as such as all they are used for is to provide a home for millions of bacteria living on the surface area, or deep inside microscopic tunnels within. Many newcomers often feel that the gravel, as used over undergravel filtrations systems is there to strain out dirt from the water. That it does so is a fact but it is an unfortunate drawback in that the trapped dirt only helps to slow down the water-flow through the gravel which helps to keep the bacteria alive and to serve its main purpose. This can be overcome to a greater extent by using the filter in 'reverse' mode — pre-filter the water

36

37

through an external power filter before driving it down the 'up tube' and then up through the gravel.

The bacteria on the surface (exposed to the flowing, oxygenated water) converts toxic ammonia in the fish wastes first into less harmful 'nitrite' and then into even less harmful 'nitrate'. The larger the surface area offered by the filter bed the more bacteria you will get to 'act as 'cleansers' but this large number of bacteria will not immediately exist on setting up that new aquarium, no matter how deep the gravel bed. The bacteria need 'food' in the shape of waste products to start them off and keep them thriving. Build up the numbers of fish in the tank slowly as then the size of the bacterial colony will grow in step too keeping pace with the growing demand for their services. 'New Tank Syndrome' accounts for many losses and is where the development of nitrite outstrips the capability of the bacteria to dispose of it.

O.K. So now we've got rid of the ammonia into safer nitrate which, probably, is adding to the levels of nitrate already in the tapwater you used to fill your tank. Converting nitrate back into nitrogen can be achieved by using bacteria once more

but a different type to those before. These bacteria work in low oxygen levels (such as in the stagnant, interior recesses of filter medium such as Sponax) and in order to exist remove the oxygen from nitrate turning it into nitrogen in the process. Water flow through trickle filters is a good example where these bacteria work and such filters are combined into modern 'wet and dry' type of filters which have both biological processes occurring at the same time, so offering complete filtration of the water.

Remember that if you are using undergravel filter the composition of the gravel used must be considered if you are trying to maintain specific water conditions. Ordinary gravel will probably harden up the water, so if you want to keep soft water fish then make sure the gravel is lime-free.

Crossover points

None of the above filter media work in complete isolation. Once the mechanical and chemical filter media get established as certain amounts of biological filtration bacteria will become established on them. Similarly as we have seen, the medium used in biological systems will, by its physical nature, also act as a straining medium to some extent.

Waiting for The Sounds of Summer

by Malcolm Goss

As we look forward to our short summer months, so often added up in weeks, will your pond and garden give you full satisfaction. Although as Aquarists you may ask what has the garden got to do with my hobby, but surely one complements the other. August is a month when in contrast to spring, background noise in the garden is reduced to a continuous murmuring undertone. The hot and humid weather conditions encourage such a population explosion of insects, that the very air itself pulsates with the beat of innumerable wings.

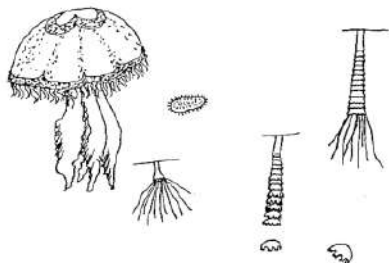
The pond is the most productive habitat through all seasons, but especially in late summer. Swarms of insects colonise the abundant plant life throughout the garden, weather they be shrubs, bedding plants or the vegetable plot. Just stand for a few minutes by your pond or marsh area and watch the swarms of midges, gnats and dragonflies plus the not so desirable mosquitoes (or are they?). Mosquito larvae collected in an open barrel or container without fish is a handy source of live food for our Aquarium bound fish not so fortunate to live in a pond.

I have both newts and frogs sharing the pond with a collection of goldfish of many colours. Whilst reminding myself of colours what could replace the spawning damsel flies with that wonderful shade of neon blue. Where there are masses of flowering pond side plants, insects will gather to feed on them. Wild *Angelica sylvestris* thrives on moist soil, with its delicate white lace like blooms it is ideal for pond edges. Many butterflies visit my



garden feeding on bramble flowers and elder flowers that grow wild at the bottom of the lawn. Here nettles, dandelions (*Taraxacum officinale*), and daisies are encouraged to grow. On those bright cloudless days I have seen the butterflies of small tortoiseshell and peacock, along with yellow brimstone and meadow browns. Birds of course are a delight to watch in the garden all through the year. However, on a bright day in the summer you will also hear the familiar noise of grasshoppers in the pond side grasses. From mid-summer until autumn, the shrub, *Lavatera* keeps a continuous succession of rose-pink flowers, these to act as feeding stations to the butterflies and insects including bees.

Every two years in the late autumn (October/November) I clean out my pond. It is a good chance to trim the marsh plants, divide the lilies and irises, removing all dead foliage. Swapping cuttings with other water garden Aquarists is better than throwing them away or just take them down the club to give away. I now often add new species of plants to the adjoining area of the pond and beyond, hopefully allowing me to enjoy 'The Sounds of Summer', as it should be in the garden.



LIFE CYCLE OF A JELLYFISH

In late Summer and Autumn, sperm are released by male Jellyfish, drawn in by the females during feeding and fertilise the eggs. Females release tiny swimming larvae called planulae.

Each planula attaches itself to a rock and develops into a tiny Sea-anemone-like polyp called a scyphistoma, which feeds through tentacles and grows until by Spring it is about 14mm long.

The scyphistoma gradually develops constrictions around its body which deepen until it resembles a stack of wavy-edged saucers. The tentacles are re-absorbed and, one by one, the saucers break free and swim away as minute jellyfish.

These baby jellyfish grow so fast that by late Summer they are mature and producing eggs and sperm themselves.

Reprinted with permission from Autumn/Winter issue of GLAUCUS, Journal of the British Marine Life Study Society.

Details of the BMLSS can be obtained from: Andy Horton, BMLSS, Glaucus House, 14 Corbyn Crescent, Shoreham-by-Sea, Sussex BN45 6PQ

Julidochromis ornatus

by H. Ross, Atlanta, U.S.A.

The craze generated among Cichlidophiles in recent years, by the importation of fishes from Lake Tanganyika, and the apparent ease with which some of them have been spawned, has spread to the U.K. Of course, other characteristics have also been responsible for their popularity. These include shape, colour patterns, and unusual behaviour.

Many aquatic outlets now have these fishes in their tanks. The first of these to be seen on a regular basis were *Julidochromis ornatus*, a colourful fish that resembles *Pseudotropheus auratus* from Lake Malawi, and the other odd *Telmochromis temporalis* — of these two species the 'julie' is more attractive. In simple terms it is a bright yellow fish with three horizontal black stripes extending from the tip of the nose to the base of the tail. The lower stripe terminates in a large black spot at the base of the caudal fin. The uppermost stripe barely extends along the base of the dorsal fin. All unpaired fins are attractively edged in black with an iridescent blue inner border. The paired fins are clear yellow. Unlike the mbuna from Lake Malawi (which are all mouth brooders), most of the Lake Tanganyika species are substrate spawners and the *Julidochromis ornatus* is no exception.

Six one-inch specimens were obtained from a shipment known to have come directly from the Lake. These six fish were introduced to a previously prepared 20 gallon tank. The tank was filled about a week before the fish were expected to arrive, using ordinary tap water with the pH adjusted to 8.0. Approximately one

teaspoon per gallon of marine salt mix was added to the water during the filling process. In order to assure the maintenance of high pH, and DH values, coarsely crushed dolomite was placed in an external power filter. A small air stone was placed in the corner of the tank to provide additional gaseous exchange. The bottom of the tank was covered with about one inch of crushed granite gravel and a number of pieces of granite rock to provide hiding places. Several large *Sagittaria subulata* (Arrowhead) were added to provide extra security for future occupants and to foster a sturdy growth of algae. Once the fishes were added to the tank, daily checks were made on the pH to ensure that the high levels were maintained. Those who have experienced significant changes towards the acid side in their tanks have reported that the fish simply go to the floor of the aquarium, until they die soon thereafter.

Feeding

Provision of a well balanced diet that would produce good growth and promote reproduction was by feeding a combination of live and frozen brine shrimp, flake food, mosquito larvae

Julidochromis ornatus

(continued)

and white worms, on a twice daily routine. *Julidochromis ornatus* does not seem to be fussy about its food, taking any morsel that was offered in addition to the regular feeding.

Behaviour

Thus far these six fish have proved to be much harder than reputed. Once accustomed to their surroundings they began to establish typical territorial boundaries. When things became settled, two of the six had occupied over half the tank floor and they kept close watch for potential intruders. If another fish ventured into their claim, it suffered an attack by one of the occupants. These attacks were always the same, a headlong rush at the intruder followed by a nip aimed at the intruder's caudal or dorsal fin. These sudden attacks were followed by the equally sudden retreat of the intruder. Attacks were often aimed at fishes some distance away.

Spawning

Some time later, three tiny "Julies, less than a 1/4" long, appeared near to one of the larger rocks close to the filter. They seemed to be a week or so old at the time when they were first seen. Although neither the actual spawning activity, nor the eggs, had been observed, it might safely be assumed that the eggs were placed on or under one of the rocks at the

furthest and darkest corner of the tank, as per other reports of similar occurrences. Whether or not three was the total number of eggs laid is known only to the parents. At this point the feeding of live food was discontinued until the fry grew somewhat, in order to prevent the parents from mistaking their own young for food. Since the three were first seen, two of them have disappeared, but again the cause of this disappearance can only be guessed at. The last of the youngsters is growing steadily and is almost one inch long now.

It is reasonable to assume that the two fish that held the large territory were the parents. Distinguishing the sexes was done strictly on size differences. Others who have been successful with these fishes report that the female is always considerably larger than her mate. In the present case, what seems to be the female is twice the size of the other. Otherwise no sexual dimorphism is shown by this species.

Conclusions

From these experiences it should be said that all those who have looked upon *Julidochromis ornatus* as delicate, ought to reconsider, and try them. Admittedly their requirement for highly alkaline water renders them unsuitable candidates for the average community aquarium, however this species is worth the establishment of their own tank anytime.

Extracted from an original article
by H. Ross Brook, Atlanta, U.S.A.

42

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The Lament of a Catfish Keeper

Marion F. Johnson, T.V. CATS 89

The advertisement I noticed said "Catfish Specialist". I thought this opportunity was too good to be missed. So when the weekend came along I thought I would slip out, Without the missus noticing to see what was about.

I found the garden centre and drove in through the gate, Excitement grew to fever pitch I felt I couldn't wait. To see these whiskered treasures the true love of my life, (But not a word to Betty — Nor even to the wife).

I followed all the arrows and I walked in through the door, And every tank was loaded with catfish by the score, But — oh dear no — all I could see were bread and butter fish, Along with various cichlids and loaches — not my wish.

But then as I was looking I had a sudden shock, Was that *Clarias Laticeps* alert beneath that rock, A sudden splash from lower down and on my heels I sank, *Platystomatichthys Sturio* was in a bottom tank.

A *Brachysynodontis* and two *Hemimyno's* too, *Panaque Nigrolineatus* and the one with eyes of blue, And *Sturmsoma Fannense* that had a rokish air, And a large *Silurus* species that gave back stare for stare.

A wicked looking *Mystus* with a Wyckii-looking name, And a Tiger Shovelnose that was elderly and tame, I didn't know which way to turn if you see what I mean, For some I'd never heard of let alone ever seen.

I then approached the "catfish man" who smiled and said to me, "Oh yes sir they are all for sale except perhaps for three, Oh no sir, I'm afraid that's one and that's another too, I couldn't bear to part with them no even sir to you."

"And the very special Red-Tail and *Leicurus Pictus* sir, Are my wife's and if I sold them I'd get my cards from her, *Leocassis Pocoloptrus*? — I've only got the one, and *Pseudodoras Niger* well I need that for my son."

"But I've lots of lovely *Corys* and some *Otocinclus* that, Although they are much smaller can each be called a Cat." Well I went home empty handed but that was long ago, And now I go there weekly as my tanks grow row by row.

And every single one of them is filled surprise surprise, With many kinds of catfish of every shape and size, So now my home aquarium is like the London zoo, but the wife's off with the milkman and Betty's hopped it too.

aquarian

by Dr. David Ford

aquarian

Q. Upon testing the water in my tropical aquarium with the Aquarian Nitrate test strips, I found the water intolerable for keeping fish. I also tested the household supply and that has a high nitrate reading also.

I would be grateful if you could advise me on both this problem and an inexpensive solution to it. I have also written to Anglian Water for their comments.

P.H. of South Witham, Lincolnshire

A. I think you will find that the Water Companies will not accept any complaints from fishkeepers because they have only a legal requirement to supply water for drinking — by humans.

Actually it is very good for community fishes too, once the chlorine has been removed. The nitrates are high in some areas but EU Regulations mean these are being reduced as fast as the Companies can do it. Even the highest values (50ppm) are acceptable to most community

tropical and all coldwater fishes (but not marines, and especially invertebrates)

Do not confuse chemical content with biological content — the importance to fish is the quality of the water, ie. zero ammonia and very low nitrite. These are removable by biological filtration which means adequate, continuous water flow over a filter medium covered in nitrifying bacteria.

I think all UK drinking waters, once dechlorinated, are excellent for most fishes. If too hard, just pre-boil (this removes chlorine too) and if nitrates are very high, collect some rainwater to dilute the tap water in the ratio of two parts tap water to one part rainwater.

Use this mixture when doing water-changes to dilute the aquarium water: you can do it weekly (never all at once!) to achieve a fairly rapid change of quality but remember not to overdo it, otherwise the fishes will become stressed. The resultant mature water system will be ideal for the fish, you can then stop testing and worrying

Good Fishkeeping!

Note: I once overheard the following conversation between a worried aquarist and an expert :-

Aquarist: I've got problems with pH

Expert: Are your fish and plants all healthy and thriving?

Aquarist: Yes, most certainly, never been better.

Expert: Your diagnosis is exactly correct — you've got the problems with pH, your aquarium hasn't!

The moral is — don't be too overworked by test results; the fish haven't read the same books as us!

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