

FISHKEEPERS & WATER GARDENERS

BULLETIN



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tetra



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Amazon Fish (Part 4)

We have had the privilege of reading Alan's wonderful adventures in the last three issues of the Bulletin this year, even more of an achievement when Alan was for most of his journey was on his own. When he was with people he spent most of his time with just one family from the Caboclo population, he wrote each couple had eight to fourteen children. They all rely on fish for food and of course that represents a lot of fish every day. That is noticed in the species of fish that the Caboclo caught for Alan to photograph. When I meet up with Alan at his home in near Box Hill in Surrey, bearing in mind Alan is not a fishkeeper he had never seen a Corydoras, what ! in the Upper Rio Negro. After all would you fancy grilled Corydoras, with or without chips? However there was a few surprise species as you can see by the following list of 39 species

Fish found in The Upper Rio Negro (Brazil)

Local Name	Species Name
Piranha Fula	<i>Colossoma macropomum</i>
Araya	<i>Potamorhynchus</i> sp.
Pacu Listrado	<i>Myiostomus schomburgkii</i>
Pacui	<i>Metynnis luna</i>
Aracu Pinima	<i>Leporinus affinis</i>
Acara Baru	<i>Aequidens</i> sp.
Sunibim	<i>Pseudoplatystoma fasciatum</i>
Piao Aracu	<i>Leporinus</i> sp.
Pesce Cachorro	<i>Hydrolycus scaberoides</i>
Acara Pappagaio	<i>Cichlosoma</i> sp.
Mandi	<i>Goekia eques</i>
Mandobe	<i>Pseudochanna nadosus</i>
Matincao	<i>Bryon melanopterus</i>
Pesce Aguleo	<i>Nannostomus</i> sp.
Treira	Not Found
Pirannaa Cidau	<i>Brachyhalcinus orbicularis</i>
Tucunare Acu	<i>Cichla ocellaris</i>
Orana	<i>Hemiodopsis semilaenaria</i>
Jacunda	<i>Cichla tetemisi</i>
Acara Preto	<i>Cichlosoma</i> sp.
Pacui	<i>Metynnis argenteus</i>
Acara Boari	<i>Mesonauta festivus</i>
Acara Bicuda	<i>Geophagus daemon</i>
Acara Acu	<i>Astronotus ocellatus</i>
Acacu Bicuda	<i>Geophagus jurupari</i>

Acacu Branco	<i>Brycon</i> sp.
Acara Peneria	<i>Cichlosoma severum</i>
Acara Papaterra	<i>Geophagus proximus</i>
Acara Pappaoio	<i>Cichlosoma</i> sp.
Pesce Cachorro	<i>Cichla monoculus</i>
Jacunda Sabao	<i>Crenicichla</i> sp.
Reco Reco	<i>Platydoras costatus</i>
Bodo	<i>Hypostomus</i> sp.
Brancinaa	<i>Curimata ciliata</i>
Pirarara	<i>Phractocephalus hemioliopetures</i>
Aruana	<i>Scleropages formosus</i>
Arari	<i>Chalceus erythrurus</i>
Janpia	<i>Tetranematichys quadrifilis</i>
Acara Preta	<i>Aequidens diadema</i>

As we know there are many species that inhabit the Upper Rio Negro other than has been listed here. It is quite evident that the locals are experts in catching "food fish" however there are many seasonal fluctuations in this part of the river, all adding to the changes of the many fish species that may be caught at any one time.



Hand carving the spear tip that will be bound to a shaft.



Even when there is food to catch, some one has to stay behind (top)

With a new spear head night fishing can start with the aid of a torch (top right)

Even day time fishing can be quite precarious (bottom right)

Malcolm Goss has the slides of the fish listed in this article, if you would like to see them down at your club meeting check out the FBAS speakers list for Malcolm, under the heading "Fishes from The Upper Rio Negro".

SO THEY THINK ITS ALL OVER !

by

Malcolm Goss

This year was The British Aquarist Festivals 50th year, run by the Northern Federation of Aquarist Soc. Quite a few of us from down south made this once a year track up to Manchester. BAF over the years to a lot of aquatic fanatics has become an institution, the Mecca of all Aquatic Festivals.

After the war years saw the berth of the FNAS, a first ever meeting taking place 7th June 1947. Founder member societies being Bell Vue, Derby, East Lancashire, Halifax, Leeds, Merseyside and Sheffield.

In January 1951 the FNAS formed an Executive Council to run a Festival to be known to us all as BAF. This council was made up of true statesmen within our hobby, Bob Chammin, Jim Butler, Anthony Evens and Fraser Brunner, representing the sponsor *The Aquarist*, later to become *Aquarist and Pondkeeper*. Added to these members of the FNAS, Dr Wilkinson, Mr Iles and Mr Graham. After weeks of planning and preparations the first BAF was held on 2-5th May 1951.

The show was officially opened in the Exhibition Hall, Belle Vue by Robert Hempmann, famous in the

world of theatre and ballet. He admitted he was not an aquarist himself but recalled that his friend, Miss Margot Fontaine had kept an aquarium to soothe her nerves. The show was visited by over 17,000.

Many of those who were asked to judge at BAF over the following years saw it as an honour and many of us that just went year after year, just to be part of it. We would meet friends from Scotland, Wales and Cornwall, the most southern tip of England. I remember we would eat, drink, dance and above all laugh the night away at those party nights the FNAS would organise.

So 50 years later, the large halls have gone and so have the Tableaux, plus the trade stands and the visitors. The fact the venue was a Church Hall this year gave us some idea what was to be expected as we travelled up the M6. Motorway.

On arrival we instantly meet up with Northern Federation members, and their welcome was as warm as ever. It did not take long before it was teas all round and the usual banter had started. I saw this as my chance to slip away and have a look round.

As I walked anti-clockwise my first stop was to chat with Derek and Pat Lambert manning the Today's Fishkeeper stand. Derek is of course the publications editor, he tells me sales have vastly increased over the last twelve months. I know that's what they all say, however I believe him. As I moved on it was nice,

and a pleasant surprise to see Dr David Ford once again at the Aquarian stand. It was only natural to see the Catfish Study Group after all they are on home territory here, it is a shame there were no other specialist groups, shame on you. The fine array of silver ware was centre stage in this hall, all those names on trophies who's memory came flooding back once again. I slipped by the tombola and passed a small stand selling fish food. However I could not help but stop at a small unmanned stand selling fantastic carvings, walking sticks and engraved pictures of fish on glass, all done by Brian Walsh.

Moving on to a second hall with many more visitors, one could see why. Here were the fish. Show fish, fish for sale and fish on display in the Champion of Champions Class. I went straight to the "Fish for Sale" stand to see if there were any bargains, and I was not disappointed..... Flying Fox (*Crossocheilus siamensis*) approximately 75mm only £2.00 this is one of Gloria's favourite fish, brought two-that's blown the budget! Also with a small selection of quality fish was a stand selling frozen fish food at bargain price. Brought some of this too, shame I left it in the boot, core did it smell. Ann Telford and her team was answering questions all day on water purification. I felt this was the best trade stand at the show, so professional.

The centre of the hall had the Open Show fish benched on trestle tables set in an oblong formation. The

fish were benched in rows, some three or four deep, this was poor not only for visitors but judges alike that wanted to see the fish. There were excellent show fish to be seen, well worthy of better benching than this. All those buckets on view just pushed under the tables. What happened to the black cloth fellows?

Many of the usual hobbyist were not here today, but they may have well arrived on Sunday. But there was plenty of friends present to keep us drinking tea and talking until 4.00. All too soon it was time to say good bye and face that M6 motorway. By now it was raining, a true farewell from Manchester.

As we drove back down the motorway one could not help talking and reflecting on what we had seen. It is all too easy to criticise and we would not know all the trials and tribulations surrounding the show, or how many were left to do the work. However, even if the show continues to be in a Church Hall, and there's nothing wrong with that, it deserves to be of a higher standard of presentation than it was today.

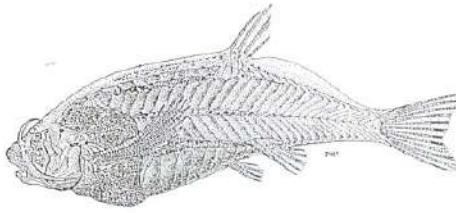
Don't let us here that final whistle so often in keeping with this reports title.

"IT IS NOW"

Thank you to the FNAS for facts in this article taken from BAF 2001 guide.

Know your Fish

Sarconlanis simplex (1966)



Sarconlanis simplex

Trichomyeterinae. Subfamily Sarcoglanidinae

Distribution: Sao Gabriel Rapids of the Rio Negro, Brazil.

Body and Colour: A small bodied catfish. The greatest body depth towards the posterior part of the adipose corselet, with the least depth being at the caudal peduncle base. Both maxillary and rictal barbels reach the gills when the mouth is closed. No melanophores or other colour pattern can be seen, a visible dark pigment is confined to the eyes. These small catfish have highly transparent skin, as shown in the illustration.

Remarks: Minute, translucent, apparently arenicolous, non-parasitic Trichomycteridae with tiny but functional eyes.

Ref: Drawing from Myers/ Weitzman 8th March 1966
Translation from a white paper on loan from the British Museum of Natural History.

Scatophagus argus - How long can you keep them?

by W. Herring, Calypso Fish and Aquaria Club



Photograph by Peter Robinson of the IBSB *Scatophagus argus*

Do you belong to the small group of lucky aquarists who can keep these fish without any difficulty for years, or is your mortality rate so high that you are bound to buy new ones every few months to give them another try?

If you are a member of the latter group - which, in my experience, is in the majority - it will perhaps pay you to consider to keep them in the way I do.

Scats are common inhabitants of estuarine waters of Malaysia but also occur as landlocked populations in fresh water far from the sea. According to information I have had, most of these fish are caught in brackish water along the coast, thus saving the expense of long transport to sea or air ports. Until the time of shipment they are kept in natural brackish water, but

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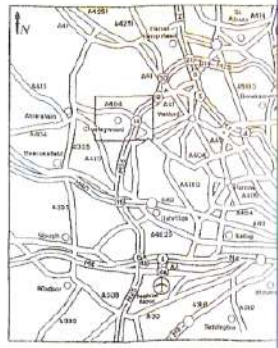
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afterwards they are transferred to freshwater, sometimes with added salt, sometimes without. No wonder that quite a number of them are already in a bad state before they land in your tank.

If you are lucky, you might unwittingly become the owner of Scats caught in freshwater. In this case you probably will have no problems at all and are even able to give good advice to your unlucky fellow aquarists, unfortunately not helping them very much.

It has been said that Scats must be kept in hard, alkaline and slightly saline water; for this reason it is commonly advised to add some table salt to the water. Nothing could be more wrong, because most of the Scats are not dying because of low salinity. Aquarists often find that the addition of salt does not have any beneficial effect on their fish at all. The mortality is due to two factors:

1. The wrong **percentage** ratio magnesium to calcium water.
In sea water: Magnesium approx. 1,294 ppm. Calcium 413 ppm.
In local (Cape Town) average tap water: Magnesium 2 - 5p.p.m. Calcium 9 - 15p.p.m.

Therefore I rectify somewhat by increasing the magnesium

content by adding two teaspoons of Magnesium sulphate (Epsom Salts) to every four to five gallons of tap water.

2. Phenol poisoning.

Phenol is a slow acting nerve poison. Symptoms are: Nervousness, convulsions, the fish dart wildly around the tank and are very frightened. In fact they may become so agitated that they ram their heads against rocks and glass, and even shoot downwards at high speed to bury their heads deeply in the sand.

Phenol formation can be observed even in well-kept tanks four to eight hours after feeding. Scats are far more sensitive to it than any other fish and accumulate poison in their tissues.

To prevent phenol poisoning I use an activated charcoal filter. One pint of this charcoal in a five-gallon tank occupied by two Scats remains active for four to six weeks.

3. "Pressure disease".

Further mention must be made that in the first weeks, before the fish are fully acclimatised, they may suffer from the so-called Pressure Disease. In this condition the tissue and blood of the fish are

flooded with water because of the difference in osmotic pressure between the inner and outer medium.

The process of osmosis regulation in brackish water fish is complicated and I must admit that very little about the nature of this mechanism is known. In simple language it could be explained as follows:

Marine fishes lose water constantly by osmosis. They replenish this loss by swallowing large quantities of sea water. In their intestines the sea water salts are absorbed and excessive salt is excreted by special cells in the gill epithelium, the so-called chloride cells.



Freshwater fishes practically do not drink water at all. Instead of the "chloride cells" they have mucous filaments in their gills which can absorb water and salts from the outer medium (the surrounding water). Excessive water and salt are excreted through the kidneys.

If you put a marine fish into fresh water it will not stop its habit of drinking water. Brackish water fish behave like marine fish, but when transferred to fresh water they stop drinking this and slowly their "chloride cells" degenerate and, let's say, "water cells" appear as in freshwater fish.

The art of acclimatising brackish water fish to fresh water, therefore, is to synchronise the dilution of the salt water with the gradual disappearance of the "chloride cells" and the formation of the "water cells".

In their natural environment Scats regulate their osmotic pressure in a very ingenious way: they eat the excrement of other animals, preferably of those with a high urea content, like in ducks and other birds. Francis Day, in "Fishes of India" (1878), said: "I have opened many specimens and of these taken near inhabited locations had as a rule their stomachs full of ordure."

Furthermore they scrape stones, etc., that are overgrown by certain algae - in Malaya called "lap-lap" - blue-green algae of high nitrogen content. In an aquarium they eat their own faeces and those of other fish.

Now a phenomenon occurred which at first we could not explain. If Scats were fed on the excrement of freshwater fish they always died in a short time. The reason for this may be that freshwater Teleosts excrete practically no urea but mostly ammonia, which is poisonous. Therefore, before the fish are fully acclimatised, we have to keep them separate and not together with other fishes. If Scats are put into distilled water and fed with urea they survive this treatment for about a week, whereas without urea they die within hours.

To feed Scats with urea is a tricky business since an infinitesimal amount too much will poison them. Looking around for a substitute we found an excellent food in ox kidney. The kidneys must be frozen first, otherwise they are too difficult to digest. Care must also be taken to avoid fatty parts. I have fed Scats over the years on nothing else but kidneys and algae. Filamentous algae I collect once or twice a year in freshwater pools around Cape Town. I hang them over

string in a shady place to dry them, and packed in plastic bags and stored in a dark room they keep their green colour for months.

The best algae to feed are a euryaline species called *Enteromorpha* which grows here in a small brackish water river on the way to Strandfontein in huge quantities. These algae have a high vitamin B₁₂ content. The dried algae are first soaked in fresh water (not in aquarium water) where they swell up immediately and cannot be differentiated from fresh algae.

For one or two young Scats I use a four-gallon tank without any gravel. If the bottom is of glass I paste black paper underneath. After filling the tank with the magnesium tap water and connecting the charcoal filter, I aerate the water strongly for one night. If available, some old tank water should be added. Then I put in many floating plants, such as *Eloped*, etc. Evaporated water is replaced with fresh water without using magnesium. Before the fish can be transferred into an ordinary tank together with other fish visible growth must have taken place.

Scats like a dark place to hide. A slab of black slate leaning against one of the glass walls will be occupied immediately as a sort of "garage". The fish must be

able to swim in and out on either side. If you have four Scats you must provide four separate "parking" places for them: each prefers to have a "garage" of its own.

All my Scats died after about four years in captivity because of a hardening of eggs inside them (eggbound) because all the Scats I had turned out to be females. I still have one huge female left, going now into her sixth year. It is a pity that I was never able to come across a male Scat, and sometimes I think that only females migrate to brackish water.

This has its parallel in *Monodactylus*: I never found a male in brackish water. I opened at least 20 of them: all were females.

In South Africa there occurs one species of the *Scatophagidae* family, viz., *Scatophagus toiracanthus*. I caught two at Richard's Bay, Natal. They have bars, not spots, but I failed to acclimatise them to fresh water. They tolerated a density of 1.008 at 20°C, but died at SG 1.004.

pictures by courtesy of Calypso Publications

Competition for a surprise Prize.



Can you name these ladies and the Location
Send your entries to the Editor (closing date 14th February)

Today's Fishkeeper

previously

Aquarist and Pondkeeper

Reviewed by the Bulletin

The October issue for those who thought they would receive or buy the Aquarist and Pond Keeper will now know it has been re-titled "Today's Fishkeeper".

For many of us that have been in the hobby far longer than we wish to admit, this publication started out as the Amateur Aquarist in 1923. After the war years it then up graded its name to the Aquarist. With popularity growing in water gardens, it again moved on with the market trends and become Aquarist and Pondkeeper.

Throughout its history the magazine has been regarded as the true hobbyist friend. They have been there helping clubs and individuals plus supporting the many Aquarist Festivals over the years. I suppose this is no surprise when past editors like Anthony Evens, John Dawes and our very own, Dick Mills have all been such keen hobbyists. The

present editor Derek Lambert was so well known within the hobby before he took on this assignment, he has now become a household name to all fishkeepers.

Under his editorial the articles have really improved. As we look through the pages of "Today's Fishkeeper" gone are those comic type sketches and we now have quality photos. In this edition an article "A tank full of Tetras" by Gordon Davies was instructive and well documented, with a wonderful shot (Photo) of Congo Tetras (Photo by MP & C Pednor). The Fishkeeping Answers pages are helpful to new aquarist and can be read with interest by us all. Former editor John Dawes writes on "Close Encounters of the Fish Kind", here we see photos that could be linked with the "Blue Planet" series now being shown on BBC television. Another of my favourites is Tropical Fish Profile and this month's profile on the Pearl Gourami (*Trichogaster leeri*) by Richard Friend was spot on with a magnificent picture by Arend Van Den Neumenhuizen. The stiff backing to the last editions of A & P have gone on my copy of Today's Fishkeeper, this certainly gave a feeling of quality to these editions. After inquiring I understand with the stiff backs you could not place them in the yearly binders that are available.

This magazine is well ahead of any other in its field, as a national monthly fishkeeping journal, it is nice to see that it does not rest on its laurels and that like all of us we must move with the times.

Today's Fishkeeper



54 Corys & Cals

Ever Wondered which sex your Corydoras are? Ian Fuller explains how to tell the boys from the girls.

62 Preparing for winter

As autumn closes in, our pond needs some care and attention so the fish will survive through winter.

TROPICAL

10 A tank full of Tetras

Gordon Davies suggests a host of tetras for your community aquarium.

26 Wilhelm's Delight

Herst Linko introduces a colourful new Apistogramma from the Amazon.

32 Misadventures **COVER STORY** on the Upper Orinoco

Intrepid explorer Oliver Lucanus risks life and limb in Columbia to track down new fish for

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this month

A WEEKEND WITHOUT FISH.

By
Gloria Goss

The week leading up to August Bank Holiday weekend, Malcolm and I were talking what we would be doing over the three days off work. On the agenda was a look around the London Shops, a meal with our son and daughter in law, a full day in the garden and some small jobs around the house. Great! not a mention of fish or fishy jobs. Saturday morning came, the sun was shining so far so good, Malcolm said shall we have Kippers for breakfast? He's started thinking about fish already I thought, no I am getting paranoid, after all it is only food.

As we drove down Cromwell Road near South Kensington Malcolm thought it would be nice to stop for coffee. As we drank our coffee at a seated area pavement with a marvelous sunny morning our chat got round to the Natural History Museum just about two blocks away. Well within about 5 minutes we were walking through the entrance of the museum. Would you believe it, in the lobby a large

notice board advertising a talk by Oliver Crummond on "Fascinating Fishes". Guess what! it was scheduled for today, in fact starting in half an hour at the museums lecture theater. So now you non fishy people this is when you come to terms with fish fever and say "if you can't beat them join them". After all I was promised a cream tea after.

The theater was air conditioned, plush seats with arm rests. It was now 2pm and just over 30 people were now sitting down waiting for Oliver to start. A pair of doors swung open to my left and a wooden trolley appeared with large fish bones, jars and drawings, closely followed by a rather buffed gentlemen wearing a white smock and a kit bag on his back and in close attention two young ladies. My eyes were now wide open as I sat up in my seat thinking "may be there's more to this hobby than I thought". Malcolm was now nudging me saying "that's Oliver" as if I could not have guessed. The first half hour of Oliver's talk had me all over the place, fish wise that is. From looking at "Rat Tail" and "Angler fish" that live 1,000 feet down in the oceans, to Chichlids from Lake Victoria in Africa and freshwater fishes from the Bezo River in Borneo. After

a very interesting talk the audience were invited to look at the objects of interest brought in on the trolley. These being the jaw bone of a shark, shark skin, football fishes, eel skin wallet and more. Judging by the questions being asked all these items caused a great deal of interest.



Afterwards, Oliver invited Malcolm back to the fish department. We looked around the endless rows of bottled fish, for me some looked quite sad many with dated labels on naming the people who collected them from the turn of the century (1900) and others with really ugly fish in them. One thing

they all had in common was they were very much dead. Back in Oliver's office he made us a very welcomed cup of tea.



After many conversations on the fish Malcolm was interested in and the aquatic hobby in general it was time to go. All too soon after climbing many staircases and going along dark corridors the three of us were in the bright lights of the main entrance hall of the museum. People and children seemed to be everywhere. Malcolm and I shook hands with Oliver and thanked him for what was a lovely and interesting time. Soon he was gone, and as I looked at the clock with its hands on 17.00hrs, so was my promise of a cream tea too.

**POND PESTS
AND
DISEASES**
BY

Bill Rundle

We frequently get asked questions on the Federation Stand at garden shows, about pests and diseases of Water Lilies and Pond Plants.

With the average garden plant these are not too much of a problem, as we get the appropriate insecticide or other form of control and deal with it. It becomes a little different however, when water, fish and other aquatic life are involved. Indeed most of the proprietary cures emphasize not to be used near ponds and fish. Although there is quite a lot of literature on garden pests and diseases, we usually get just a short chapter in books on ponds generally and it worries me a bit, when some of these refer to the use of chemicals.



I advocate the hands on, finger and thumb method of control, and find this is usually adequate. Our

greatest ally in combating most of the pests are our fish, as the flies and larvae are their natural foods. I sometimes wonder if these days we tend to overdo the fish foods a bit. Certainly years ago fish were not fed in ponds to the extent they are now. I have personal knowledge of ponds where the fish were not fed at all and the fish are fine.

Hardly a year goes by without an infestation of Black Fly appearing on our Water Lilies and these are easily controlled with the help of our fish. Just hose the pots off the foliage with a jet of water and the fish will do the rest. One of the most interesting pest is the Brown China Marks Moth. The attractive female moth lays her eggs on or just under the edge of the Water Lily leaves, where they hatch into a small white larva with brown to black coloured heads. These then feed on the edge of the foliage, often cutting pieces of the leaf making itself a protective shield woven with a silk web. The first indication of these creatures, are finger nail size holes appearing in the leaf, on turning the leaf over the small silk webs will be obvious attached to the undersides. All that can be done is to either squeeze them with your finger and thumb, or just scrape them off into the water where the fish will eat them. Badly affected leaves should be taken out straight away and destroyed. Usually the Lily should be producing so much foliage that the odd few affected leaves are not too much of a problem. I have to say that I have a bit of a soft spot for this rather attractive of pests.

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reason for using
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Wouldn't you like to sit back and just enjoy your pond! With TetraPond water treatments you can do just that. They get rid of murky water, algae or blanketweed. They also ensure your pond is disease-free and safe for your fish. Because TetraPond treatments take care of all the hard work, you can relax and take it easy.



All you need to know is at www.tetra-fish.co.uk

Festival of Fishkeeping and Water Gardening

at

Bracklesham Bay. 2001

You can sum up the FBAS Festival of Fishkeeping and Water Gardening weekend, the venue South Downs Holiday Village at Bracklesham Bay as "Fantastic". For those of you that were unfortunate not to be there I had better give you an idea of what you missed. Let me leave you in no doubt that after visiting both the Yorkshire Festival and the FNAS Festival this is the biggest and best of its kind within the UK.



Bulletin table, with Gloria keen to book members yearly subscriptions

Gloria and I arrived at 17.00hrs on the Friday evening, we were met by Grace in the reception and received a warm welcome. As you made your way to your chalet, walking through the show halls furnished aquariums seemed to be every where leaving you in no doubt that you was at a fishy event.

The bar would be open at 6.00 with pre-dinner drinks and as we left our chalet after a wash and brush up, you could not help but feel a sense of excitement at meeting all your friends again.

The lights from the lounge bar area came flooding out across the lawns in front of you. Passing two ponds with cascading water falls that glisten with lights you quickly moved inside, you realised the gang was all here. Before you could say hello to every one Pete Cairn was on hand to welcome you to your seat (great waistcoat Pete) for the evening meal.

Gloria and I found our old friends Bill and Joyce who we shared the table with throughout the weekend. Needless to say we raised our glasses many times. We received a

three course meal that was excellent and agreed by all on our table. In fact all the meals were very good and so was the service at your table as well.

After the meal there was dancing in the main bar followed by a cabaret, this happened every night through out our weekend.

During the day the show was open to day visitors and one could listen to the arranged lectures that included speakers from Europe as well as the UK. On the Saturday there was a specialist show of Catfish, with just over 200 entries and many excellent examples of fish from this vast family. Sunday we were treated to 400 plus fish in the Open Show in fact there was a panic over benching space, two of the tables that formed the Bulletin stand were needed. Bob Esson senior Coldwater (FBAS) judge had not seen so many goldfish exhibited for some years.

The Aquascapes were a big attraction as you entered the Open Show Hall. Whilst the Supreme Championship entries was lost when extra benching had to be hastily erected in front of their benching to cope with the extra than expected amount of fish.

If all this was not enough to keep you busy you could walk up to the various trade stands and specialist groups, like the Catfish Study Group(UK) and the Goldfish Experts with a marvellous display of a variety of Goldfish all set, swimming in white bowls. Both groups being able to feed you with lots of information. That reminds me you could also talk to Dr Peter Burgess on the Aquarian Stand. What a surprise to see Tetra and meet Rupert Bridges B.Sc. (Hons)M.Sc. with all the technical support you could want. Further round there was a stand with plenty of adds for our very sick fish.



Aquascapes, being a big attraction.

Our centre pages show just a few of the stands and events that happened, of course there are too many of you to mention that helped, not only with the build up, but often forgotten, those that stayed behind to help clear up.

The "Bulletin" has received letters from you with your views of the weekend, and I am pleased to print some of those for you.

The Festival Committee would like to thank every one that worked so hard, the Trade Stands and their helpers, the Staff and Management of the South Downs Holiday Village, our Sponsors, and above all, you for just being there. See you next year.----- **11th 12th 13th OCTOBER 2002**

Desborough
Keitering
Northants.
4/11/01

Dear Joe

*My few words on Bracklesham Bay:
Bloody hard work, worked my fingers to the bone,
but fantastically brilliant.*

Tina. xxxx

Desborough
Northants.
2nd Nov 2001

Festival Committee
Dear All

I would like to say - that I really enjoyed my time at Bracklesham. The weekend was very informative and had plenty for all. The meals and service were excellent - everybody was very helpful. The entertainment was good and my children and I had fun. This was my first time to Bracklesham and I hope to be able to come again.

Thank you,
Jacqueline Clarke.

The NEW Fluval Plus, the most exciting development in internal filtration yet.

Now the best is better than ever

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"AQUARIAN"

by
Aquarian's
Dr Peter Burgess.

Fish Quiz Winners

AT

Supreme Festival of Fishkeeping

Dr Peter Burgess writes, no one scored full marks, but the following people were the five highest scores.

J. Aitkin
J. Egan
M. Goss
A. Morns
K. Sollitt

The following five names were drawn randomly from all entries submitted.

P. Anderson
A. Dunford
C. Greenslade
J. Hodder
S. Watson

The above 10 names will each receive a small prize from "Aquarian" Well done everyone!!

For those of you that like to try the AquaQuiz questions for your self, there are 20 general fishkeeping and 5 cryptic questions for you to tackle. All the questions were compiled

Good luck!

GENERAL QUIZ.

1. To what group of fish do the following species belong: Ruby, Tinfoil and Tiger?
2. Which group of marine fish are often found in close company of sea anemones?
3. Name the Amazon's largest fish.
4. What does the word "Koi" mean?
5. Undergravel, biological and mechanical are all types of what?
6. What is the chemical formula of water?
7. To what group do the following types of fish belong: Zebra, pearl, Giant and leopard?
8. Cabomba - is it Goldfish, Caribbean or Plant.
9. Why are surgeon fish so - called?
10. Which of the following Prime Ministers kept aquarium fish: John Major, Winston Churchill or Margaret Thatcher?
11. True or False? Aquatic plants consume oxygen from the water at night.
12. Which Cichlids got its common name from a famous boxer?
13. Piscicide - is it: Alcoholic drink, type of Tetra, parasitic leech or a place in Venice?
14. Which ONE of the following fish does NOT possess an adipose fin?
15. Which ONE of the following fish does not possess vertical stripes on its body? Zebra Danio Angel Fish, Bumblebee Goby, Tiger Barb.
16. What is Carraianus? Is it: Aquatic Snail, African Barb, Larval Insect or a Parasitic Roundworm?
17. Samuel Pepys wrote in his famous diary (26th May 1665) "My wife and I went shown a fine rarity. Fishes kept in a glass of water". Which ONE of the following fish was Pepys most likely to be referring to? Neon Tetra, Paradise Fish, Goldfish or Discus Fish.
18. What is the link between fish and artificial pearls?
19. Joseph Lathou-Marillac made considerable contribution to water gardening in the late 1800's. What was he famous for?
20. Which South American fish was named after US President Roosevelt?

AQUARIAN Fish Quiz

CRYPTIC QUESTIONS

Here's five cryptic questions that will force your brain into overdrive!

EXAMPLE

Question: Olympic event involving a South American Cichlid?
Clue: 6 letters
Answer: Discus (A Discus throw is an Olympic sport). Discus fish is an Amazonian Cichlid.

1. Mixed up chocolate bar yields these popular Cichlids.

2. Reef fish often in distress (6 letters)

3. Snail found within this grass-like aquatic plant? Name the aquatic plant.

4. This loach loves to fool about (5 Letters)

5. Fancy Goldfish confronts large cat - face.



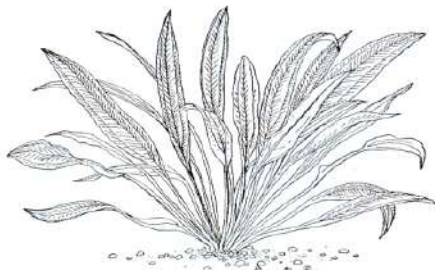
RECOMMENDED BY TOP AQUARISTS

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AQUARIAN

ADVISORY SERVICE

Know your Plants *Echinodorus brevipedicellatus* (Buchenau) 1903



Common Name: Small-leaved Amazon Sword Plant.

Distribution: Brazil.

Description: Perennial. Leaves 25 to 55cm in length forming a rosette arising from a short rhizome. The light green leaves being 2 to 4cm wide, somewhat falcate, with a bold midrib, on either side of which 1 or 2 very slender lateral veins can be seen. Flower stalk can be up to 1 meter tall above the water surface bearing 4 to 6 whorls of 3 to 8 short-pedicelled, white flowers. These flowers are bisexual with 12 stamens and many ovaries.

Remarks: This plant was first described in 1898 by O. Kuntze as *Sagittaria brevipedicellata* and transferred to *Echinodorus* by Buchenau in 1903. In the aquarium with good light the plant has been known to flower, but like most *Echinodorus* it requires water on the soft side, at a temperature not below 18 °c. The plant develops runners from which young plants arise and these can be pegged down in the planting medium like you do with strawberry plants in the garden.

The range top aquarists recommend



To stay healthy and active fish need a range of nutrients. The best and easiest way of providing these is in a complete balanced diet such as those in the AQUARIAN range.

- AQUARIAN Flakes - A range of highly nutritious diets, for all tropical, marine and coldwater fish.
- AQUARIAN Tropical Granules for all community fish.
- AQUARIAN Tropical Floating Sticks for larger tropical fish such as Cichlids and Oscars.
- AQUARIAN Floating Pellets for all goldfish.

ALL AQUARIAN PRODUCTS ARE THE RESULT OF EXTENSIVE RESEARCH AND DEVELOPMENT WITH:



FOR FREE HELP AND ADVICE on all aspects of fishkeeping, write to the Aquarian® Advisory Service, PO Box 67, Elland, West Yorks, HX5 0SJ.

aquarian
ADVISORY SERVICE

Water Lettuce (*Pistia stratiotes*)

by
Stephen Pritchard
Dunstable and District A.S.

Well known as a hazard to waterways and transport in more tropical countries this "Pond Plant" comes into retail outlets as a fine statuesque floating plant. An ideal natural medium for spawning egg layers, with all the fine root fibers cascading from the central stock. The leaves are open celled, very fibrous, self-supporting and are covered in fine hairs that repel the water allowing the plant to remain afloat.

In the late summer of 2000, I obtained a couple of pieces of a very "crinkled" (when mature) form of Water Lettuce, each no bigger than a 10 pence piece. Putting these into my 80x24x24 tank they floated around in the current mimicking the movements of the mature plants I had seen in Peru just a few weeks before. I had the idea that I could grow the plants to mature specimens and then reproduce them, again we had seen small young plants growing on the edges of the more mature plants in Peru. I had tank space and the lighting to try this.

This is what happened, first the plants floated around for a week or so, then they began to add a few leaves but the leaves stayed small

no bigger than when I first obtained them, maybe the Mercury Vapor lighting was not enough?

As the days went by the number of leaves and young plants increased until the whole of the tanks water surface was covered with a mass of small Water Lettuces as each plant competed with its neighbor. The next phase commenced, all the leaves began to grow until I had a tank full of plants the size of grapefruit.



Water Lettuce at the foreground
(FBAS stand Hampton court)

After many clearing sessions and selling a few plants at auctions I have noticed the plants strategy seems to be, and this must make it a hazard in the wild, to cover as much surface area as possible then in crowded conditions it grows forming a dense mat. I removed almost all the plants on 1st April this year, leaving about a 24 sq. inches floating on the surface of my large tank. By the 12th April the whole surface area was covered again,

except for the areas that are disturbed by water movement, I have an old Whisper 1000 air pump running 4 air stones in the tank. Water Lettuce in this area do not grow well as they do not like water on the leaves.

I did say earlier that the fish like to spawn in the floating roots and this is an understatement when it comes to my Rosy Barbs (*Batus conchonus*), every day there is a pair or more spawning in the roots of one or more plants. The Rosy Barb population is always in the region of 60 plus, this number in a tank with a large number of fish that would love to eat fry. I am always amazed at the number of very small fry I see swimming in and out of the roots of these plants.



Roots in a spawning medium



During the summer months I tried a piece of plant in the pond, one of the plants that had been growing in the tank with individual leaves about four inches in length, a lovely healthy green colour and a fine mass of roots. In the pond with a more natural environment I thought it would do well. However with in the first two weeks it lost its nice green colour and the leaves died back and the new leaves stayed smaller and yellowish. The plant stayed smaller and began to reproduce as it had in the tropical tank but slower, after two months outside I had 20 small plants.

This is not a plant for all hobbyist, as most aquariums do not have the lighting that seems to be required, nor find the lower water level aesthetically pleasing but if you want to give it a try you may be lucky in growing a plant to maturity, which in the wild would just fit into a washing up bowl by the way.

FOOD FOR THOUGHT A FURTHER LOOK

by
Les Holliday

You may remember that in the Spring issue of the magazine I explained why I thought that providing a healthy and correct diet for your fish is an important key to success not only for their individual well being but also for the environment in which we keep them.

I went on to extol the virtues of using the Hagen range of Nutrafin Max foods which have been formulated with a great deal of skill to ensure that they have an excellent balanced nutritional profile, are highly palatable and avoid producing excess waste which can pollute the aquarium environment.

The criteria that Hagen have followed certainly delivers the goods in producing a high quality food in nutritional terms which tastes good to your fishes and is low in terms of waste and therefore low polluting but how does it measure up in a complete feeding regime?

A frequent question I am often asked is "Will my fish do well if

fed only with a complete flake food?"

The answer is 'Yes', however, due to the many different types of fish kept and their diverse requirements, I would always recommend providing a feeding programme which is composed of at least one quality flake food, one freeze-dried food and one frozen or live food. Providing a varied diet helps optimise fish condition, colour and disease resistance. When selecting this kind of menu, of course, it's important to also make sure you accommodate adequately for the feeding preferences of herbivores, carnivores and omnivores.

"My fish aren't doing very well and not growing at the rates I would expect, is this due to poor quality food" is another recurring theme.

Diet is a very important component for efficient growth rates and foods like Nutrafin Max provide quality sources of protein, which are readily digested, together with all the necessary nutrients, vitamins and minerals to provide a premium diet. Naturally, feeding quality foods cannot always be the complete answer as factors

such as regular water changes, filter maintenance and stocking levels are also directly correlated to growth.

Questions on day-to-day feeding, whatever form of foods you are offering, fall into the usual "How often should I feed and when should I feed my fish?"

The best general advice I would offer on how often to feed would be two or three times a day, feeding sufficient to allow approximately 2 minutes for all of the food to be consumed. For many species of fish, though, smaller more frequent feedings are preferable. This facilitates digestion and prevents overfeeding. Some species also may require up to 5 minutes such as most bottom feeders and discus.

The answer to 'when should I feed my fish' depends again on the species as some are diurnal (daytime) feeders whilst others are nocturnal and there are various other alternatives on this theme. In practise, though, fish quickly become accustomed to any feed timing regime you decide. I always recommend feeding approximately 30 minutes after lights are turned on and at least 30 minutes before

they are turned off. One or two additional small feeds may be given during the day and are especially beneficial for active species. Whatever feeding pattern you choose the main thing to remember is always ensure that all of the food is consumed.

Following a very narrow feeding regime can give rise to problems and I'm often asked questions such as "my fish love live food, should I feed it exclusively?" or "my goldfish love wheatgerm and appear to be full-bodied and healthy, is this a good food for them?"

Whilst feeding live food exclusively may seem to be a good idea, it can easily lead to nutritional deficiencies. Good quality dry food formulations on the other hand, contain a far higher nutritive value per weight of food. Dry foods therefore form a better core diet mainly due to the protein and vitamin content. Products like Nutrafin Max provide fully stabilised and encapsulated vitamins, resulting in effective concentrations and availability. Live foods are excellent if they come from a clean, disease free source but are better used as treats rather than a staple diet.

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To answer the second question, goldfish are greedy feeders and just like us they like foods with a high fat content. Wheat germ is a good supplement in autumn to fatten up pond goldfish for their winter hibernation but contains a fat content far in excess of what pond or aquarium goldfish require when they are active. Feeding wheatgerm in place of a good dry food staple diet will result in fatty deposits, which will shorten their life span considerably.

Taking another common theme, at one time the range of dry foods was very narrow and the economics of producing a wide selection of speciality foods deterred many manufacturers from offering more than the basic staple diet foods. Hagen have broken this mould completely with their highly comprehensive range of Nutrafin Max foods which leave little left to be desired.

Let's look at some more frequently asked questions relating to special feeding requirements.

Case 1. "I have problems keeping bottom feeders such as Corydoras and Plecostomus

successfully for any length of time, why?"

One of the first things to ensure when keeping bottom dwelling fish is proper nutrition. Bottom dwellers often cannot obtain enough nourishment in a mixed community aquarium simply because mid and surface feeders are present and take the lion's share of any flake foods fed. It's a common myth that bottom dwellers act as scavengers and feed on the waste of other fish. Whilst bottom feeders do keep the bottom of the tank clean searching for food, they do not feed on fish waste. However, their feeding activity does lift the waste into the water column and filter currents are able to deliver this to the filter. To prevent your bottom dwellers becoming undernourished try feeding Nutrafin Max Sinking Complete Food Tablets or Spirulina Algae Tablets.

Case 2. "My discus do not eat dry foods, what am I doing wrong?"

Discus, of course, are not the easiest of subjects to keep and it's essential to make sure, first of all, that water temperature, water chemistry and tank mates

are suitable. Secondly, make certain that no symptoms of disease are occurring. If all conditions are acceptable, start by mixing approximately 10 to 20% dry food with a readily accepted frozen food. Slowly increase the percentage of dry food until your discus are consuming feedings of dry food up to 75% of the food offered. A highly suitable flake food to mix with your discus's favourite frozen food is Nutrafin Max Spirulina Flakes. Spirulina contains highly beneficial substances that will significantly contribute to healthy skin and fins and beautiful colours.

Case 3. "I rely on an automatic feeder and many of my fish prefer to feed at middle and bottom levels, how do I properly feed my fish?"

Water column feeders usually require a small gauge food that slowly sinks through the water. Nutrafin Max Micro Granules are the perfect solution. As the granules are distributed, some slowly sink and ensure that all fish are effectively fed. In addition, as the automatic feeder slowly empties granules disperse much more effectively than flake foods.

Another topical subject is colour enhancing foods. These are now a common feature and you could be easily lulled into a false sense of security in using one of these products when your fish are poorly coloured instead of establishing the root cause. Water quality, temperature and aquarium conditions must be excellent for your fish to show their true colours and no amount of colour enhancing foods will counter-balance deficiencies in these areas. Colour enhancing foods can, however, be an excellent additional strategy once you have satisfied water parameter deficiencies and you can obtain good results using Nutrafin Max natural colour enhancing foods. Nutrafin Max Colour Enhancing flakes contain R.A.P. (Red Algae Pigment) a natural substance rich in astaxanthin (natural lipid soluble pigment). Nutrafin Max Spirulina Algae Flake and Tablet foods also contain a natural source of a number of pigments, allowing the efficient development of a variety of colours in your fish.

Case 4. "I have a Siamese Fighting Fish male which can have brilliant strong colours at times, how can I ensure it maintains its coloration permanently?"

