

# FISH WORLD



*Magazine*®



**aquarian**

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## Dear Reader



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I would like to thank all our advertisers for their support this year. With special thanks to **AQUARIAN** whose support enables this magazine reach every known society and every known judge in the United Kingdom, free of charge.

The magazine also finds its way as far as New Zealand and Australia, to America and to Africa and the Middle East.

I would like to draw your attention to a new advertising section in this month's magazine. These are some of the traders who have joined the **Federation's Dealer Discount Scheme** and I would urge you in this coming year to support these dealers. Even if you do not buy on your first visit, please make yourself known to them.

Thank You for your support.  
Yours sincerely

*Peter A. Furze*

Peter A. Furze, EDITOR

Material for the next issue of this magazine should be in by the 1st February 1994, and sent to either myself at 9 Upton Road, Hounslow Middlesex TW3 3HP Tel or Fax 081-570 0934 or The Features Editor, Dick Mills 10 Rooken Grove, Farnham Royal, Buckinghamshire SL2 3DZ.

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\*Source: Waltham Aquaculture Centre, July 1992. © Playwood Press, Ltd. © Copyright Playwood Press 1993



# FROM ... your Chairman

Once again, I can look back over the past year with confidence knowing that the Federation of British Aquatic Societies has served Societies well and, with equal confidence, promise you of more of the same for 1994. Yet again, we have extended our services well beyond the Society level to become, in the eyes of our friends in the Aquatic Trade, synonymous with well-organised public events. Among our new engagements this year (in addition to our annual lecture at the ever-growing Hampton Court International Flower Show) we attended *Aqualife '93* (NEC), *BBC Gardeners' World Live* (NEC) and the *Town and Country Festival* (INAC), the latter two bringing fish care to the notice of the public in co-operation with our friends at *Interpet* and *Aquarian* respectively. All major aquatic events were included too — *Doncaster*, *Motherwell* and *Manchester* — these in association with the *Hagen Helpline*. On a more 'family' front, we broke new ground with a different style of Show at our own *FISHWORLD '93* at Syon Park and supported *Grocklemania*, that well-known Isle of Wight weekend experience.

We are still recovering from our own fantastic Supreme Festival of Fishkeeping held at Weston-super-Mare with the generous and continuing support of *Interpet*, who can forget the packed hall to hear our Guest Speaker TFH's Dr. Herbert Aqvirod, probably the greatest name in fishkeeping today. We are especially grateful to Sam Hardy of TFH in not only arranging Herbert's visit but also for generously sponsoring the 'Spot the Difference' Competition with its two free Weekend passes for the Festival as first prize and TFH books for the runners up.

Society membership of the Federation has further increased, reflecting that more and more Societies are appreciating what we can do for them: a fully comprehensive Show Support Scheme from Judges to Awards, Branches to Gold Pins plus incentive schemes generously supported by the Trade all make FBAS shows the best around. This *FISHWORLD* magazine is now established, fully Trade advertisement supported and, again through our friends at *Aquarian*, is being read by more and more people.

I must thank members of the Federation Council for their hard work during the year and to the aquatic Trade for their growing support for our work; with more and more retailers joining our Dealer Discount Scheme (look for our badge in their windows) 1994 should see further expansion of our services and of the public's awareness of fishkeeping's best Society support services.

I wish you all a very Happy Christmas and Successful Fishkeeping for the New Year.

Joe Netherell

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## One and One Equals None

by Shorty of Corby

At the end of the Spring-time he blew into my shop like a Force Nine Gale, over six feet tall and all of twenty stones, overbearing, dogmatic and loud of mouth. "Fond Liners!", he said. I did not know whether it was a statement or a question. Loud Mouth was of about forty-five summers and what I took to be his wife with him, was about the same age, a good-looking wench but obviously blind with no taste in men at all!

You will have seen the caricature on old seaside postcards — big, fat bossy woman and skinny, meek and mild man? This was it in reverse, in spades, as they say. "Hurry up and get the dog-food, woman, whilst I look at these liners," he boomed. She gave me a hesitant half-smile (probably because he wasn't looking!) and asked if it was Valu-Mix, I averred that it was.

"Down here, boy!", he bellowed from the bottom of the shop. I could have killed him. "These here liners," again I was lost with his statement/question. "I have a selection of liners", I said, biting the lip. "What size do you require?", I asked politely, determined not to stick a "sir" on the end. "I don't want a bloody selection, I want two similar", he said loudly. The heart lifted at this prospective sale.

I managed a smile. "Building two ponds are you?" He ignored the question and countered with "What guarantee do the things have?" I dutifully pointed out the guarantee mark, thinking absurdly that if he were my husband there would be no guarantee the slob would ever see the finished pond — he would be under it! However, it is not my nature to be rude to customers, no matter how obnoxious they are.

"Did you have any particular size in mind?" I asked. "Course I did!" he

replied testily. "Wouldn't have come in if I didn't know what I wanted — I'll have two twelve by eights." He turned and strode to the counter. "No pond for that bloody dog food yet woman" (question/statement again) "I didn't know whether to get some treats ...". She started to say, "Never mind the treats," he interrupted. I carried the liners to the counter, wondering how I could stick a pin in one of them without being seen. "Stands to reason, if they are guaranteed for ten years doubled up they'll last for twenty", he boomed, apropos of nothing. I managed a sardonic smile and a Simon Templar lift of the eyebrow. He paid and was off, with the poor dear in tow. "Come on! There's work to do!" was his parting shot.

The worst happening. Three days later he phoned to say the pond leaked, the liners were rubbish, they were laid as per the diagrams. He'd read about pond-making and what was I going to do about it? After many questions I said I would go and see him. I did. I was astounded. I secretly laughed and was greatly overjoyed. You will remember the liners were twelve by eight? So was the hole! Our bright, boisterous bighead had laid them lengthwise across the width so that they overlapped. His answer was that the weight of the water on the overlap would hold the liner down, they would not need to be sealed.

I drove home with heart lifted and the angels were singing a little ditty, that went something like this:

"You may have lots of money  
and a gorgeous little wife too,  
But when the Lord gave out the brains  
You were right at the back of the queue!"

## The future of the Tropical Fish Hobby in New Zealand

With the new MAF quarantine legislation about to come into effect, there is a mad panic by tropical fish importers throughout the country to upgrade their premises to comply with the new standards.

Many importers will practically have to rebuild their premises or else face closure. Others have been busy renovating... building ante-rooms, installing waste water chlorination systems and running around in their protective overalls, aprons and boots in tropical fishrooms (we won't need weight-watches, anyway!).

How does this affect me as a hobbyist? you might well ask. Well, basically you're going to end up paying for these extra expenses through increased prices and there are also likely to be supply shortages.

In the interests of conservation and keeping the hobby going, more local breeding needs to be encouraged. Already we have a very strong interest in Killifish which is mainly supplied through domestic stocks.

It is however disappointing to see that more attention isn't given to breeding those fish which first enticed us all into the hobby.

I often refer to these fish as the "bread and butter" lines — fish such as the humble neon tetra, guppies, swordtails etc.

When we began in the hobby we were all so excited to find those first few baby guppies darting about in our community tank. Where did they come from? Soon like proud parents we were boasting to everyone about our new discovery.

However, as we advance in the hobby, these brightly coloured livebearers which first attracted us, often fade into insignificance only really earning the title of "feeder fish". We become more absorbed with breeding more difficult species of Cichlids, Catfish and ultimately

by Warren Garrett, Brooklands Aquarium  
courtesy of the Federation of New Zealand Aquatic Societies (Inc.)

the king of them all Discus.

Although efforts to breed the more difficult species certainly deserve full credit, I think the more common species deserve more attention than they often get. The old favourites such as neon tetras, white cloud mountain minnows, guppies, tiger barbs, angels, swords and platies etc., etc., will always be in demand.

Really all that is necessary is better communication between breeders and retailers or distributors.

Already Aquarium Societies and the Federation are offering assistance through advertising for members in newsletters and/or in the Aquatic World. There is also the FNZAS Breeding Scheme register of breeders that is updated each year and a copy is given to all societies.

If you are breeding quantities of any fish make sure a market exists for them. It's no good raising a batch of Blue Acaras or Severn, which could be in excess of 400 fish, to find you can't even give them away!

Also, quality is of utmost importance when breeding. Any substandard specimens should be culled. Be honest about sizes — many people are too keen to move their fish out and get that tank ready for their next spawn. You'll get a much better reputation by sorting out the bigger fish to sell and giving the smaller ones a while longer to grow on.

It's also up to retailers to offer a fair price for fish — most are willing to arrange a swap for food, filters or other equipment you might need.

Of course, no one makes a fortune breeding fish, but you may help pay some of your expenses. Breeding fish is always a fascinating and rewarding experience and you'll be doing your bit for the survival of the hobby and the conservation of our planet.

## First NEC then NAC

Materialists venturing around the M42 area may become bemused by roadside references to NEC and NAC within the space of a few miles. Most will realise that NEC is the National Exhibition Centre, adjacent to Birmingham International Airport, whereas NAC is the National Agricultural Centre at Stoneleigh just outside Warwick. So what's this got to do with fishkeeping in general and the FBAS in particular? Well, the Federation has been involved with fishkeeping displays at both, although the relative scores to date this year are NEC 2 (Aqualife '93 and BBC Gardener's World Live) and NAC 1 (Town & Country Festival '93). On all occasions, we were in attendance to dispense basic information to, and answer fishkeeping queries from, the public, although fishkeeping could fairly be said to be only of a minority interest featured at two out of the three events, but to NAC.

Imagine a Country Agricultural Show, a Sunday Market, a Craft Fair, an Athletics Meeting, a touch of The Royal Tournament, a Modelmakers Fair, a Pet Show, Show Jumping, a Music Festival and Bungee-jumping thrown in for good measure and you'll have some idea of the attractions — and I expect a few have been left out in ignorance too!

We were guests of **Aquarian**, themselves part of a massive one-hall display area given over to pet care and sponsored by Pedigree Perforads. Facing our display was a mini show-ring in which dog obedience demonstrations were given (sometimes, during the games part the dogs were more noisily excited than their owners or spectators). Once again, the Portable Ponds attracted visitors, courtesy of Aquavita Services; the Aquarian Advisory Service was in full swing with Dr. David Ford and David

Sands in attendance. Several prominent Federation people took the time to drop in on a 'day-out' basis, and stayed to help out whilst their partners took in the rest of the Show. Trade was brisk, many youngsters attracted further to the Stand by the painting pictures and fold-out hats being given away free. All manner of questions were asked (and the answers gratefully accepted), we even had a gentleman complaining that articles in *Fishworld* weren't technical enough!

When compared to the overall list of events and attractions on view of the Show over the August Bank Holiday weekend (which drew in some 100,000 visitors), our little 'fish tank' was minuscule in comparison indeed but we hope we managed to interest a few more people into taking up the hobby. As on similar occasions, many visitors were pleasantly surprised that a body such as the FBAS not only existed but was prepared to talk to people about getting into the hobby successfully, rather than limit itself to supporting those already involved in fishkeeping. This is an important part of the Federation's work and we are grateful to Aquarian for inviting us to join them in this venture, which should develop into a regular date each year. Maybe our furnished tanks should really include Dogfish, Catfish, Parrotfish and Horse-faced Loaches to really enter into the spirit of the thing?

The Federation of British Aquatic Societies is delighted to report that a number of agreements have been arrived at in respect of AQUARIAN support for the Federation in 1994. These include exclusive advertising in specific publications, advertising in general publications, support for *Fishworld* magazine and other FBAS-supported activities. Together with trade-support, the Federation's services to Societies can only get better.

## Sawbwa resplendens

by Peter Cottle

It is some 6 years since Heiko Bleher published an article in *TFH* describing his experiences in the search for the Asian "Rummy Nose". It would appear that few, if anyone, had every been successful in collecting *Sawbwa resplendens* and

getting them back alive. Heiko was fortunate in being able to find them and to return to Germany with sufficient to provide the basis of a breeding stock. It is a native fish of Burma and without doubt, because of the location of

## Sawbwa resplendens

(continued)

the single (as yet) biotope, it has proved very difficult to transport this species.

The male Sawbwa has a body which is a brilliant steel-blue colour. The nose of the male is a bright red. Fins are colourless except for the caudal which has a bright red flash in the upper and lower lobes and the dorsal which has the first few rays coloured black. In complete contrast, the female has drab colouration and does not have any red markings. The fish I purchased, were kept in an 18 x 15 x 12 tank with plenty of plant growth. Water was typical for the North Kent area in that the hardness is in excess of sixteen degrees of hardness. They readily accepted dried and live foods, in particular mosquito larvae brought them into breeding condition quite quickly. Spawning was achieved by using a method more usually seen when breeding Killie fish. Mops were hung from the surface of the water and the Sawbwos soon decided that this was a suitable

medium. The fish spawned, a few eggs at a time over a period of days. Unlike Killies, the Sawbwos eat their eggs so removal of the eggs on a daily basis is essential. I placed the eggs in a small container which was floated in a tank. After 2 days, the eggs hatched and the microscopic fry were transferred to another small tank and fed on a mixture of Liquity and green water. Growth is fairly slow but after four weeks the young fishes were capable of taking Grindal worm etc. Moved onto a larger tank, there is some aggression between the young fish. Plenty of cover tends to lessen the aggressive behaviour. Eventually, they lose this aggression and settle down quite peacefully. It is a good idea to have plenty of Java Moss in the tank at this provision cover and possibly gives the fish a sense of territory. Spawning these fish is not difficult, raising the fry because they are so very small leads to some fatalities.

product. I would say that many Traders actually had to return to 'base' to restock, but I do not feel it wise to name one Trader and leave out others. All Traders we spoke to were very happy at the end of the day, and are already eagerly awaiting the 1994 Yorkshire Aquarist Festival.

I am incensed and offended at the reference *hastie* makes to the 'two obligatory lectures by John Dawes and David Ford' and sincerely hope that these two gentlemen who willingly and unselfishly give their valuable time, efforts and expertise freely, do not take offence at the remarks or we shall all be the losers. John and David are invited to lecture at the Yorkshire Festival, by popular demand. We feel very honoured that they accept our invitation and hopefully they will continue to do so for many years to come. Has the anonymous writer ever attended a lecture conducted by either of these two gentlemen?

There has been no Fish of the Year competition for two years, this was re-named Fish of Fishes. This particular stand is not hidden away as is suggested, but is located near to the Yorkshire Stand and the Trophy Stand for security and Stewarding purposes.

## Letters to the Editor

(continued)

Correct, there were no invited Judges this year and Judges judged singly, which indeed was an extremely successful first for Yorkshire and the Barb which won the Barb Class was judged to Yorkshire Standards, and indeed it is still a Barb. Festival Committee are amused at the comments made in the final paragraph, it would appear that our anonymous writer has some special secret, inside information as to the number of people who attended our Festival and who went there and when and what for. However, we do agree that to have two major Festivals on the same weekend is absolutely ridiculous but could we humbly point out that our 1993 Festival date had been booked more than 12 months in advance. It was not Yorkshire who double booked the date, and it is not Yorkshire who are refusing to discuss the date of the 1994 Festival.

It is sincerely hoped that this article will be printed in your next issue just to keep the record straight and to put forward the views of the Yorkshire Team. It will definitely be reproduced in our own Newsletter.

Glad you enjoyed yourself after all your moans, you obviously stayed the weekend at Festival, but come on let's be knowing who you are, or are you ashamed of what you wrote? You have my name and I look forward to reading your reply.

Marie L. Harrop  
Secretary, Yorkshire Aquarist Festival

Eds. comments - unfortunately this letter arrived too late for inclusion in our Sept. magazine but refers to our June issue.

Dear Sir

Looking around a few Shows recently (and no doubt it happens at Assembly Meetings too), the majority of females are making teas and dispensing sticky buns.

Women are now lawyers, doctors, dentists — they have ladies in boardrooms, City Councils and even high-ranking posts in Government. 50% of the Prime Ministers in this country for the past 2 years were women. So why are there no applications from stout-

hearted women to take over the running of the Council of the FBAS???

There are obvious contenders out there who only need slight encouragement, or provocation, depending on how you look at it. In the Presidential Chair I can see a woman whose credentials are faultless, a woman with a steady influence and calm attitude at all times, despite the enormous pressures she has borne over the past 8 years with great fortitude. I would make Grace Netherell an automatic choice.

The Chairlady (never mind the stupid word Chairperson) could be none other than one of our own respected Judges (and being a judge already has one foot in the door) none other than Joan Pannell.

The Treasurer could be any one of a hundred of our lady members.

The very same Ladies who manage their household expenses every week to perfection, and still have enough to buy that ritzy little black dress for the Weston Dinner Dance.

The Chairlady-in-waiting would be a new title — the old title of Vice Chair would be banned for obvious reasons.

It would be appreciated if readers would submit contenders for the numerous other council posts before the next election to the following:

Mesdames, Mills and Furze

Dear Sir,

Just read in *Western Living* the following:

Just before Fergie left Andrew, the Duchess of York bought a \$870 aquarium full of tropical fish, ostensibly to calm her frayed nerves. "It's something to relieve stress", says Mark Erikson of Tropical Image Aquariums in Vancouver, "when I come home at night I'd rather sit in front of the tank and watch the fish than watch the news or read a book".

When Jean and I were in Toronto we saw a notice in a tropical fish shop saying "Come and watch the Sharks being fed every Thursday at 7pm".

## Letters to the Editor

(continued)

There is a terrific splashing of bodies — apparently they only feed them once a week! I also saw many varieties of Molliés, Swords, Angels etc., which I don't think are available in the U.K.

Since arriving in Canada late in August, we have travelled widely reuniting with all our friends but now we have finally settled in our new home, not far from friends and of course the local shopping mall and bus stops. Our address for the General Secretary's records (and anyone else who might wish to drop us a line) is:

**3458 Upton Road, North Vancouver, British Columbia, Canada V74 2M3.**

Best wishes for Christmas and the New Year to everyone in the F.B.A.S.

Ken Pye (Vice-President) and Jean

Dear Sir,

The 1993 series of InterClub Quiz and Table Show competitions between **East London** and **South Essex Societies** came to a close at Southend on the 19th October with the host Club, Southend, Leigh & D.A.S., exhibiting their vast knowledge of fishkeeping matters by winning the overall quiz title and retaining the **Dave Cheswright Memorial Plate**.

The individual rounds of the competitions were held over a series of evenings throughout the year, with each of the 3 Societies (Ilford, Romford, Southend, Thames and Walthamstow) playing host and devising their own versions of TV or Boardgames for their visitors' entertainment, but Southend chose to bring in for their round of 'celeb' questionmaster, Dick Mills, complete with a virtual encyclopaedia of mindbending questions — and to take all the flak for 'dubious' questions, and often ambiguous answers (apart from being requested to move his car by an irate resident whose drive he was blocking, Dick got off pretty lightly).

All the contest evenings were very entertaining and thanks must go to the hardworking FBAS Judges attending the

14

Table Shows, have to do their arduous task usually against a background of riotous heckling of the numerous questionmasters. These competitions, running for some years now, have proved to be a very popular way of bringing local Clubs together, both socially and in friendly (i) aquatic rivalry. It would be interesting to learn what other Clubs do to foster connections with their neighbouring fishkeepers.

Incidentally, for those team members who may have missed the final 'battle', the tally of points for the whole series is as follows:

QUIZ	
1st	Southend Leigh & D.A.S.
2nd	Thames A.S.
3rd	Ilford & D.A. & P.S.
4th	Walthamstow A.S.
5th	Romford A.S.

TABLE SHOWS	
1st	Thames A.S. 66 pts
2nd	Walthamstow A.S. 54 pts
3rd	Southend Leigh & D.A.S. 38 pts
4th	Ilford & D.A. & P.S. 33 pts
5th	Romford 22 pts

In next year's skirmishes, Ilford will be pulling out all the stops to be victorious in their Diamond Anniversary Year. If I may be allowed to end with a 'commercial', the Ilford Convention will be held on **Sunday 8th May**. Fuller details early in the New Year.

Rob Dingwall, Ilford & D.A. & P.S.

Dear Sir,

On behalf of Marion and myself, may I express our thanks to the following Societies, who provided both a warm welcome and excellent hospitality to us during the past Season.

Aberdare · Brocknell · Bristol Trop. · Cardiff · CNAA Show (Newport) · Llantwit Major · Malvern · Merthyr · Port Talbot · Plymouth · Swindon

See you all next year,

Geoff Blackburn, Wales & West of England FBAS Stand Officer



Weston Best Trade Furnished Aquarium — Aquarion

Weston Pontin's Special Award Winner — Hambridge Fisheries



Strathclyde Fishkeepers Festival  
Just a few of the many furnished aquaria on view.  
Tony Vincent wins with Native Marins.



Youngster K. Bruce receives his Best-in-Show Award at Strathclyde Fishkeepers Festival.



## F.B.A.S. DEALER DISCOUNT SCHEME

### Watch out for the BADGE!

The Federation's Badge is quite familiar around fish circles these days, but there are two new exciting situations where **THE BADGE** is about to make an important impact on fishkeeper's lives.

Everyone loves a prize and to this end it will pay to display a Federation Car Sticker Badge on your car. From this issue of **FISHWORLD** on, a car registration number, selected from those seen carrying such a sticker, will be published each quarter and the owner (upon verification) will receive an aquatic pertinent prize. Be warned, **FISHWORLD** spies will be touring around Open Show Car Parks and such like, looking out for those stickers — if only costs a few pence and get one (from the Merchandising Officer direct by mail or from Show Stands) and you could be a winner. It will definitely pay to watch this space!

**F963 CJW**

**How to Claim:-** Write to the Editor of **FISHWORLD** address at the beginning of this magazine, giving make, model and colour of car and your own address. You will be notified of your prize as soon as possible, providing the details tally!

If hanging around in Open Show car parks isn't exactly your scene but an equally observant trip down the High Street might be, then again spotting **THE BADGE** is the name of the game, but seriously.

The Federation's **Dealer Discount Scheme** has been running for many years, but since the appointment of a full-time Advertising Officer to the Council (in the shape of Bob Lemmon) things have sharpened up considerably.

Retailers displaying the Federation Car Sticker Badge in their premises's window have agreed to give a discount on goods purchased (usually limited to dry goods, but not always the case) to any member of an FBAS-affiliated Society on production of a current FBAS Society Membership Card.

In this issue, you will find a list of dealers already participating in the **Dealer Discount Scheme**, a list which is growing fast.

The Federation is doing its part by directing members to reputable traders, and you can do your part by supporting such establishments who in their turn are supporting the Federation. If you know of a quality aquatic retailer who might be interested in joining the Scheme, please inform Bob Lemmon, giving the dealer's name and trading address.

Bob's address is: 14 Fernbank Close, Walderslade, Kent ME5 9NH.

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# FOOD FOR THOUGHT

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## Have You Read?

Since Salamander Books first brought out their popular range of 'Fishkeeper's Guides to ...', titles have been regularly added, among these were **Central American Cichlids** and **African & Asian Cichlids** which, until very recently, were the only specific Cichlid titles. Now, with the release of **South American Cichlids** (Salamander Books — £5.50), the whole geographic cichlid spectrum has been filled.

The author is Dr. Wayne S. Leibel whose credentials include two terms on the Board of the American Cichlid Association and seven years as Editor of the *Bunborsche Bulletin*, official journal of the ACA. Keeping fish for around 35 years, he has specialised in keeping (and collecting) fishes from South and Central American Cichlids for the past 15 years, so is well qualified to expound on these fishes' natural behaviour and aquarium care.

The book follows the standard 'Fishkeeper's Guide to ...' format: a general introduction of overall natural characteristics, aquarium requirements and regular culture, maintenance and breeding — one section deals with the successful breeding of, wait for it, incompatible pairs, don't laugh, it can be done! Due to the book's limited space, the detailed notes on individual species is restricted to 40 species but the author points out that this represents a good base from which to start in keeping these interesting fishes with their diversity of habits and various breeding attractions. Each species described has information on Distribution, Length, Diet, Sexing, Aquarium Maintenance and Breeding, plus any other relevant comments. In general, latest scientific names have been used, with plenty of other information regarding identification of imported species (often under other names) thrown in for good measure. It came as a surprise to see that Angelfish and Discus were simply treated as yet two more cichlid genera, despite them being the 'cultivated' cichlids of all, a spread as two of the more recent varieties of either genus would have helped to swell the

page numbers a little more too. Maybe Salamander are keeping something from us?

However, in keeping with the whole range, presentation (both textual and illustrative) is impeccable and, for the price, the book cannot fail to be snapped up by any aquarist whether a dedicated 'cichlidist' or not.

Still with cichlids, the next publication appears to go against all commonsense. We have become used, over the years, to regard Discus as rather specialised fishes needing equally specialised care and conditions. Almost as a contradiction to that view is **Discus in the Community Tank** by no less than that accredited Discus expert, Bernd Degon (Tetra - £12.25).

First the book describes the Amazonian scene, the origins and historical details of the species. Wild species are described followed by the increasing number of cultivated, or captive-bred varieties. A useful chapter not only discusses the merits of choosing either wild caught, or captive-bred fishes but also gives excellent guidelines on how to select healthy stock from whatever source you finally decide on.

Setting up the aquarium is described fully, both equipment-wise and furnishing; there is a good suitable plant section followed swiftly by an equally valuable compatible fishes selection. Proper Discus care emphasises correct water quality, the right foods are explained and, as a logical progression from the combination of these two factors, breeding Discus then takes up a major section. Disease prevention, together with its diagnosis and treatment in tabular form is also included. Finally, the book closes with Ten Golden Rules for successful Discus keeping.

In writing this book, the author has one main aim — to bring to the widest audience possible the attractions of these magnificent fishes; by showing how to set up the more conventionally-furnished planted aquarium (also stocked with suitably compatible tankmates) in which they can not only survive but thrive (and

## Have your Read!

breed), then he has done a worthwhile service for us all — and an excellent PR job for the Discus.

Snug in the armchair by the fireside, what could be better than planning and looking forward to next summer's days by the pool? **The Hobbyist Guide to Successful Pond Keeping** by Dr. David Pool (Tetra - £8.25) is the perfect companion for such an occasion. Following sound reasons for putting in a garden pond, the book details such items as Garden Pond Construction, Water Movement, Filtration, the Importance of Water Quality (here the often thought 'difficult' subject of pH comes across without any undue technical language) and Planting the Pond. Fish stocks are then discussed, firstly Goldfish, Orfe and Koi (all subtitled as Ideal Pond Fish), followed by European, North American native species (Bitterling, Minnow, Rudd, Tench, Sunfish, Shiners but definitely not the European Catfish) and then some tropical species (White Clouds, Paradisefish, Platys) which may all benefit from lengthy spells in the outdoor pond during warm summer months.

The chapter on Maintaining Healthy Fish is logically followed by a section outlining Some Diseases of Coldwater Fish in which Diagnosis, Treatment and Prevention is examined. Still with 'problems' that evergreen (!) difficulty algae is comprehensively covered; a full year's Seasonal Guide to Pond Care includes valuable references to the pond's other, more occasional visitors, birds, amphibians and insects.

David Pool (horses for courses, and now Pool for ponds?) has put together an undemanding read, the information is equally assimilable by gardeners to whom fish may be completely unknown, and to experienced fishkeepers alike. The illustrations conjure up all the magic of a pond through the year with photographs

showing in content from the close up details of fish eggs to the broadest landscape and aquascaping; these are of the highest quality and tabular information (pH, Goldfish Facts, Plants, Troubleshooting) provides quick reference facts with clear explanations simultaneously. This work, in *Tetra's Aquarium Digest Information - Collector's Edition*, will complete any aquarist's Christmas, and there should be a hectic rush to put all the sound ideas into practice as soon as the sun returns next Spring.

As the circulation area of **FISHWORLD** widens it is not surprising that we receive other journals by return. Such is **OUR DISCUS**, the official magazine of the North American Discus Society. A modest volume, published quarterly (July, September, December and March) it relies entirely on articles sent in by Discus-keepers; like our own magazine, its size may vary depending on incoming contributions (where's yours?) but the quality is of the highest practical value — hints, tips and more in-depth articles on the care of these fabulous fishes covering every 'competence level' from beginners to advanced. In the March 1993 issue, there's *Beefheart Improved Recipes, Iodine Deficiency Problems*. Beginning with Discus. A first year retrospective and Breeding the wild lake Tete Discus to name but a few of the subjects covered. If you're into Discus (or just thinking about it) then there's nothing better than learning from those who've done all the hard work ahead of you! Although price is not quoted I'm sure a letter to the Editor of N.A.D.S. should bring results. His address is:

Pat Lavac, 54 Josselyn Drive, London, Ontario, Canada N6K 1L9



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by showing your F.B.A.S. Membership Card, discounts on many items can be obtained. Please make yourself known to them when visiting their shop, even if you do not make a purchase on that occasion. They will then be able to advise you of the available discounts.

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### Results of the SEPTEMBER Issue FISHWORLD COMPETITION kindly sponsored by TFH PUBLICATIONS

35 correct entries were received and from these the following received prizes

- 1st PRIZE** WEEKEND FOR TWO at THE SUPREME WEEKEND OF FISHKEEPING — Robert Findlay, (CADAS)
- 2nd PRIZE** TFH MINI ATLAS — Mrs. S. Cowan (Solway A.S.)
- 3rd PRIZE** TFH MINI ATLAS — Joseph Farrell (North Dublin A.S.)
- 4th PRIZE** AQUARIUM FISH by Dick Mills (New Publication)  
E.M. da Costa (Ashby Fishkeeper Society)
- 5th PRIZE** AQUARIUM FISH by Dick Mills (New Publication)  
Mr. & Mrs. C. Jones (Llanelli A.S.)

The Federation of British Aquatic Societies would like to thank TFH Publications for their sponsorship.

Courtesy of Aquarian Advisory Service all winners will receive a year's free subscription to FISHWORLD Magazine.



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# Aquarium Fish

by Dick Mills

reviewed by Bill Rundle, Plymouth Aquarist Society

I attended the September General Assembly Meeting of the Federation of British Aquatic Societies and was fortunate indeed to win the Raffle — one has to be lucky just once or twice in a lifetime — the first prize being a book entitled *Aquarium Fish* by our own Dick Mills. This is the latest in a series of Dorling Kindersley's Eyewitness Handbooks.

The book is a first-class production printed on fine art paper throughout, with high-gloss board covers (a flexiback edition is also available) illustrating marine and freshwater fish in full colour, duplicated on the dust jacket. I particularly liked the blue 'fishy' endpapers.

Aimed at the novice and more experienced aquarist alike, this is not a book to lay relinquished on a bookshelf but should always be on hand for quick and easy reference. Upon opening any page, the information really jumps right out at you.

A comprehensive introduction covers all aspects of fishkeeping from the Ancient Egyptians to the present day. Starting at 'What is a fish?' through 'Breeding', 'Caring', 'Freshwater and Marine Habitats', it finishes with a page by page description of the family group of fishes we are likely to encounter (and in FBAS Show Class order too), all finely illustrated and in clear, easily understandable language.

The main fish identification section is divided into four parts — Tropical Freshwater, Coldwater Freshwater, Tropical Marine and Coldwater (Native) Marine Fishes. These parts start with a brief description of each family and continue with the most likely to be encountered species in the group. Usually set out as two or three species to a page (unless a special specimen or group is featured), each photograph of the fish is accompanied by unobtrusive colour coded bars containing information on the family, scientific name, size it might attain in the aquarium, diet, tank levels it inhabits and the fish's temperament. A small corner map indicates natural distribution.

The single fish photographs are a delight, they have been taken and selected with painstaking care and are instantly recognisable. As well as the information-filled colour-bars surrounding the photograph, clear uncluttered text provides the popular name, physical description, habitat details and any remarks peculiarly pertinent to the species. Providing only the fish (and nothing else) on the page has both benefits and drawbacks: getting only a fish photograph in the first place is technically difficult — fish in bare photographic tanks lose colour and very often don't 'depart' happily; juveniles not always necessarily show adult colours nor final form. Admitting to such factors (or shortcomings) isn't usually top of publisher's confessional lists but DK have honestly said so, both in the introductory section and in a special Publisher's Note right at the front of the book and I applaud them heartily for this, although there are very few photographic failings in this respect.

A glossary of words in the text and a full, cross-referenced index complete the work. The flexibound edition is priced at £12.99 with the hardback at £16.99. (See enclosed leaflet for Special Offer to Societies.)

I unreservedly recommend the book to all aquarists and I will be looking for other titles in the series.

Incidentally, DK publish another book of Dick's (YOU & YOUR AQUARIUM) and also the COMPLETE AQUARIUM BOOK by Peter Scott.

# Paula Reynolds' Guide to Healthy Koi

Koi keeping is one of the fastest growing hobby interests in Britain, but along with the 4' watery hole in the garden and dreams of sunny afternoons by a rippling pool full of beautiful fish, comes a great deal of work — and always 100 questions you'd like to ask of an expert if you could find one.

A new video pack, "Paula Reynolds' Guide to Healthy Koi" gives the answers to many of these questions. Fish Health Consultant, Paula Reynolds B.Sc., shares her expertise, founded on over 20 years of study and practical experience. In her work she often sees fish when they are very ill. Many of these illnesses are avoidable and she would like to see as much emphasis put on prevention of problems as on treatment.

**Cassette 1** deals mainly with how to prevent the introduction of problems to your pool, Paula visits an aquatic centre with Jenny Knowles, a Koi keeper, to advise on choosing new fish for a pond. Keeping your pond healthy starts at this point and it is very important not to take on a damaged fish unless you know enough to bring it back to full health.

Paula explains the simple observations that every Koi keeper should make from the poolside both at home and when buying new fish. A few minutes spent looking at the fish — looking of course for any obvious injury or damage, but also noticing their colour, scales, fins; and the way they behave — are they shoaling, feeding, hovering by the water inlet or hiding in a dark corner? All of these things and more will tell you about their health.

Next comes the quarantining of new stock. A separate tank of adequate size and filtration is needed for quarantine.

Once again nothing replaces observation — the fish should be looked at carefully every day and attention given to the control of parasites. Paula advises on water treatment for parasites and shows how to take a sample of mucus from a fish and use a microscope to detect the presence of parasites.

**Cassette 2** demonstrates treatment for bacterial infections both in the individual fish and the pond.

Paula treats a fish that has developed two ulcers, initially taking a swab for bacterial culture then cleaning and dressing the wounds.

The escalating problems that can be caused by bacterial infection are well illustrated by the number of fish that suffered ulcers during the first Spring in Jenny's pond. A course of wound treatment and injections were not all that was needed to rectify the situation. In fact the original filtration system needed major alterations — in this case almost a doubling of capacity.

Paula and Jenny discuss the balance that is required between the population of fish in the pond and water filtration. Paula explains the essential action of 'good' bacteria within the filter to break down waste products produced by the fish. By the Autumn the fish have recovered well from the bacterial infection. Paula advises on their care through the Winter and the debate of whether to heat the water or not.

In either case and throughout the entire year, the most important thing is to observe your fish, then you can take action to prevent problems rather than treat them. It just needs a few quiet minutes every day — time out to enjoy your fish — after all, that's what they are there for!

Double cassette video pack - PAL VHS at £19.99  
Tel: Yamitsu/Kockney Koi (0708 441300) for local stockists  
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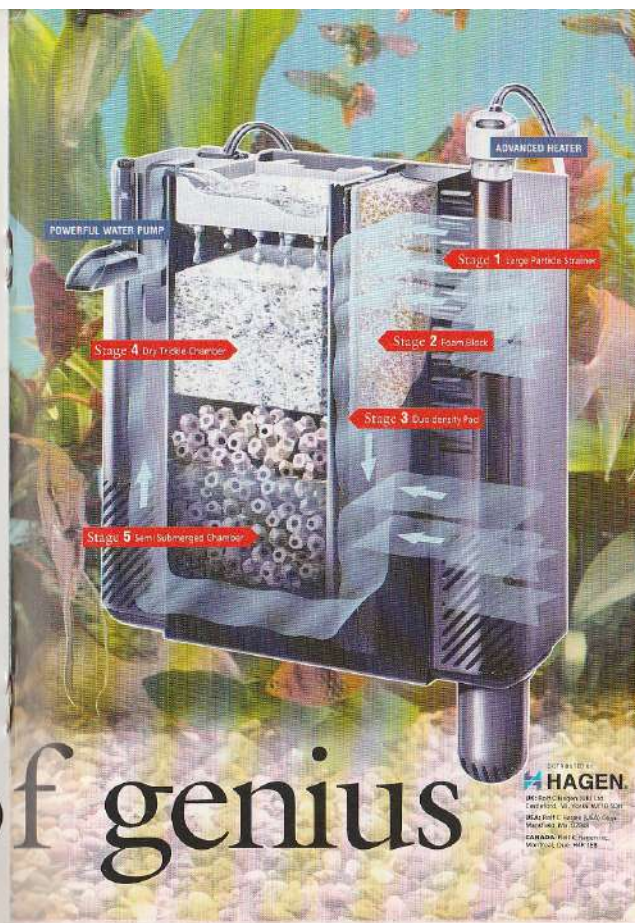
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## Supreme Festival of Fishkeeping 1993

After all the build-up, did the weekend live up to expectations? Well, there were so many things you could do — listen to lectures, watch demonstrations, take part in sporting competitions, visit Trade Stands, socialize and sit in the bar, visit local aquatic shops, watch the Fancy Dress and Cabaret, go for a swim (or a long walk — yes, the tide was still out!) — it is doubtful if anyone had time to be bored.

Friday evening got everyone in the right mood, the Fancy Dress had Hounslow's team of 'The Fishendales' turning in a spectacular, improvised performance; until they 'went on' Peter Furze, Ron Allum and Ken Marriott hadn't really rehearsed anything specific, but once they heard the music there was no stopping them! Thoroughly warmed up by now, the audience was in a ready mood for the Breakaways, the resident group and for the musical pyrotechnics from Lee Clark the Cabaret artist.

Saturday morning got off to a busy start (Keep Fit immediately after breakfast!), demonstrations of Massage Therapy and then Harry Hooper of the International Water Lily Society got the aquatic lectures under way, the AQUACHAMP FINAL First Round sped past (but not, one feels for the contestants) and following their AGM, the International Marine Aquarists Association presented a lecture by Peter Burgess and Ron McMahon.

The Star of the weekend was by TFH's Dr. Herbert Axelrod. Picture the scene ... the hall was packed, the doors shut, extractor fans off (until we found the switch) and the radiators full on! Herbert said the atmosphere reminded him strongly of certain parts of the Amazonian Rain Forest, notably the outskirts of any Indian Village! There was much to learn and wonder at, the scenes of primitive life and fascinating creeks and rivers; Dr. Axelrod took us

through 40 years or so of collecting and ended by showing some of the new varieties of Discus now available.

Saturday evening was, of course, time for the Dinner. With speeches of thanks from Mike Clarke (Interpet) and Bob Esson (FBAS President) the Interpet Award of the Year went to Alan and Margaret Henderson for their services to Societies; Alan not only masterminded the several Show Award Schemes (Interpet Best in Show Gold Pin, Hagen Show Packs, etc.) but also takes care of organising the British Open and the Supreme Championship itself. An Engraved Plaque was presented to FBA Vice-President Dr. Herbert Axelrod, to commemorate the occasion, following a most enlightening eulogy by Interpet's Dr. Neville Carrington, who told people of the several other facets and accomplishments of Dr. Axelrod's life — did you know he is an excellent violinist? The remainder of the evening was spent socialising, dancing and generally winding down after a very hectic day.

Sunday morning was again TFH time (Thanks for Herbert) who faced the multitude again and hosted an open forum, question time. Breeding of many 'difficult' species was discussed, together with the tricky subjects of conservation and importation of fishes — the views on the differing needs of natural conservators, business and hobby needs made for interesting listening. All too soon, it was time for Dr. Axelrod to leave (he was off up the M5, M6 to Stapely Water Gardens) but the stage was then set for the Aquachamp Final, general knowledge round. The audience appreciated the stamina and mental anguish of the contestants who may have felt they were in for an easier time following the specialist rounds, but this proved not to be so by any means! The results can be found later in this article.

Last it appears that things were hectic

## Supreme Festival of Fishkeeping 1993

(continued)

all the time — even in a hobby as so-called restive as fishkeeping — there were two very pleasant intervals of peace and quiet. Sue Oakey, of Mobile Pets gave absorbing demonstrations with two very different animals — Indi, the Bengali Eagle Owl and Megan the Keeshond. If you want an Owl to fly to the fist, it has to be hungry enough to want the meaty titbit waiting there; how do you know if it's hungry enough — weigh it! Between 2lbs2ozs - 2lbs4ozs you have a go situation, expertly demonstrated in the hall. Rewards of food is also the main strategy (together with praise, of course)

### Other Weston Winners

Away from the excitement of the 'Supreme' there were other competitions in progress — either mental or physical. On the really heavy mental front, the AQUARIAN AQUACHAMP Final brought together five men bent on showing off their erudition on both specialist and general knowledge aquatic subjects; unfortunately the sixth finalist, Beryl Stalker, from Newtown A.S., couldn't make the trip to Weston due to hospitalisation of one of the family — we hope all is progressing nicely now Beryl.

Specialist subjects chosen included Catfish; South American Cichlids; Malawi Cichlids; Nomenclature and Livebearers. From this round, the scores progressed nicely — 4, 5, 6, 7 and 8 — the Judges reversing one of their 'downpointing' decisions after consultation with the contestant! Sunday's final round saw Colin Tweddle hang on to his first round slender lead and take the Aquachamp title (and receive the magnificent cut-glass bowl from Aquarian's Graeme Butt) by a mere two points, following a storming last minute run by Dave Goodwin. Alan Stevens was well in with a chance after his 7 point specialist first round, but fell victim to some real brutes of questions at the end to tie in third place with David Campbell. Isaac den Dass, last year's winner, never really got off the starting blocks (he was first in the 'chair' too) and finished fifth.

behind dog training without the leash, and Megan duly obliged. There were also other non-aquatic pets, including snakes and such like in Sue's display in the main reception area.

Arranging the whole things takes time and effort; the Staff at Pontins headed by David Sanders and George Harvey all gave of their best, accommodation allocations ran smoothly thanks to Colin Richards and everyone felt that the co-presenters Interpet and the FBAS, together with our friends in the Trade had put together another fun-filled, fish weekend yet again.

### Final Scores (1st Round Scores in brackets)

Colin Tweddle (Catfish)	15 (8)
Dave Goodwin (Nomenclature)	13 (5)
Alan Stevens (Livebearers)	11 (7)
David Campbell	
(Lake Malawi Cichlids)	11 (6)
Isaac den Dass	
(South American Cichlids)	9 (4)

Getting physical was the name of the game in the Sports Competitions.

The Winners were:-

### Bowls

Vernon Hunt (runner-up David Croker)

### Snooker

Andy Wood (runner-up Paul Stack)

### Darts

Tony Spoor (runner-up David Croker)

### Pool

Andy Wood (runner-up Dave Goodwin)

### European Open Show

Best in Show  
Synodontis budgeti owned by L. Hughes

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Aquarian

Pontin's Special Award  
Hambridge Fishes

27



Weston Alan and Margaret Henderson, Interpet Personalities of the Year, receive their award from Dr. Neville Carrington.



Weston Aquachamp 1993, Colin Tweddle, receives the Aquarian Bowl from Graeme Butt.



Herbert & Evelyn Axelrod with Judges and Federation Officers



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## Submerged Pond Plants by Harry Hooper

Aquarists and pondkeepers normally refer to the submerged aquatic plants as oxygenating plants, i.e. releasing oxygen by way of photosynthesis. Although this is perfectly true, always remember that the plants only release oxygen during daylight hours. The submerged aquatic plants also require oxygen to survive so during the hours of darkness or on sultry overcast days these plants will absorb oxygen from the water therefore too much submerged plant life in a small pond could possibly be harmful to the pond's inhabitants.

This can soon be recognised if the fish are gasping for air at the water surface, this is the reason that a sensible balance of plants should be maintained.

Apart from the oxygenating benefits of this group of plants, the submerged aquatic plants play a major role in the ecological balance of the water garden. For example, the plants help to absorb the unavoidable build-up of nutrients created from fish waste or the decomposing vegetation that accumulates on the bottom of the pond, i.e. fallen leaves or last season's water lily foliage etc. etc. Without the presence of these plants to consume the nutrients the outcome would obviously encourage algae growth. Another important function that these plants provide is the essential spawning sites for the fish. Most good goldfish enthusiasts have their own preference on the variety of plant they use for spawning. Submerged or oxygenating plants are purchased either unrooted in bunches or growing in small pots. When planting it is advisable to provide fairly large containers using heavy loam with bonemeal as a fertiliser, this will give the plants a good start especially in a recently constructed pond.

### Choice of plants easily available

**Canada Water Weed** (*Elodea canadensis*) This is probably the most well known of all submerged aquatic plants. Once established it will soon spread throughout the pond. Usually pondkeepers prefer *Elodea crispata* because of its very attractive dense whorls of deep green foliage or *Elodea densa* can be used but it is normally a firm favourite for aquarium use. (The plants are normally purchased bunched).

**Hornwort** (*Ceratophyllum*) An extremely pretty plant, this plant lives totally submerged it has no true root system although offshoots will on occasion anchor it to the mud on the bottom of the pond. Hornwort will grow in dense masses therefore providing perfect spawning sites for the fish also giving the newly hatched fry plenty of cover. (Normally purchased in portions).

**Water Starwort** (*Callitriche*) Starwort is the most dainty of submerged aquatic plants. The plant has tender, light green leaves on thread-like stems. The only problem with Starwort is that the larger fish will eat it but if established plants are purchased it will soon spread throughout the pond. (This plant is normally purchased potted).

**Parrots Feather** (*Myriophyllum*) A very attractive plant with bushy, light green foliage. Parrots Feather is often purchased because of its appearance, it is very attractive once established. This plant does hold some of the foliage above the water surface and is well worth growing for its looks. (Normally purchased potted).

**Tillandsia recurva** This plant without any doubt whatsoever is the one to avoid, especially for planting in natural earth bottom ponds. Although it can be a very attractive plant it will soon

## Submerged Pond Plants

(continued)

become a menace. It will soon creep to other damp areas into bog gardens, for example, this is when you will regret planting it. This plant has become so rampant in many parts of the U.K. there is talk that it may well be illegal to offer it for sale. (Normally sold potted).

**Water Violet** (*Hottonia palustris*) This plant produces dense whorls of light green fern-shaped foliage and will

produce small pale pink flowers held just above the water. This plant can sometimes be difficult to establish, but it is well worth attempting. (Normally purchased potted).

Although there are many more varieties of submerged aquatic plants, it is a matter of preference. It is not advisable to plant too many varieties in the same pond.

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## FISH SHOWS & CONVENTIONS 1994

DATE	SOCIETY	DATE	SOCIETY
6 Mar	Burley in Wharfedale A.S.	12 June	Llantwit Major
19 Mar	K.A.A.S. Convention	19 June	Cannock A.S.
20 Mar	Birtley A.S.	2 July	Nailsea A.S.
17 Apr	Strood & District A.S.	9 July	Port Talbot A.S.
22-24 Apr	Swale & District A.S.	24 July	Potteries A.S.
24 Apr	Grocklemania I.O.W. A.S.	27-28 July	C.N.A.A. Festival
8 May	Bracknell A.S.	10 Sept	Hounslow & District A.S.
	Thorpe & District A.S.	18 Sept	Mid-Sussex A.S.
	Aberdare A.S.	25 Sept	Cramlington A.S.
	Iford Convention		
15 May	Corby & District A.S.	16 Oct	Salway A.S.
27 May	Eastleigh A.S.	4-6 Nov	Supreme Festival of Fishkeeping
5 June	Erith & District A.S.		
12 June	North Bucks A.S.		

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## The Customer's Choice

Just who are the customers in a typical aquarium shop?

Dr. Ford spent the day in his nearest aquatic store, asking their customers why they were there ... he learnt that everyone has a story to tell!

The 'Living World' of 206 Armley Road, Leeds is billed as Yorkshire's largest Aquatic Superstore. In fact, it must be Yorkshire's largest pet shop with 26,000 square feet on 2 levels. The aquarium section is in the basement and has over 400 display tanks, all stocked with fish, plants and invertebrates. This includes 54 tanks of marines, the largest of these being controlled by a bank of electronic units. These are displayed in a glass cabinet where the digital display shows the temperature, pH, salinity and redox potential of the individual waters. There is a 10,000 gallon indoor pool with a shoal of pedigree Koi.

Upstairs, in the main shop area, are rows of aquatic books, accessories, pumps, filters etc., laid out like a supermarket. There are also live pets for sale from a 9' Python (only £250) to a Blue Macaw, called Oscar, at £1,200. Also mice, rats, gerbils, chipmunks, frogs, lizards, scorpions, spiders (tarantulas are £20 if you want one).

A Coffee Shop sells cooked meals as well as snacks and this is open with the pet shop 7 days a week, late opening 6pm Thursday and Friday.

But it was down in the fish basement that I met the aquarist customers and asked the question, "Why are you here?". Here are just some of the replies.....

### The Johnsons of Bradford

Mr. & Mrs. Johnson had motored over from Bradford to see what fish were available. They were that well-known breed, the 'ex-aquarists'. When they set-up home a coldwater tank was part of the decor and this was turned

eventually into a tropical aquarium. It contained a community of popular tropicals, even a lobster they said (must have been a Crayfish).

One day last year, disaster struck. There was a wipe-out where every fish, even the lobster, died within a few days. "It was a complete mystery," said Mrs. Johnson. "No signs of disease, water quality OK, but they went down like ninepins. Each morning we found a few more dead." So the aquarium (a 30 x 18 x 12") was left empty until the tanks had faded and they decided to restock. The trip to Living World was to see what fish were available and then decide what type of aquarium to set-up.

I asked if any postmortem examinations had been done when the first deaths were seen. This hadn't occurred to the Johnsons, so I explained that a service was available at a small cost, and well worth the effort, because early diagnosis could often save many of the fish. Where there are no symptoms, proper diagnosis is impossible and postmortem exam is the only way to discover what is wrong.

### Mr. Meachen of Huddersfield

Mr Meachen hails from Huddersfield but is working in Leeds, so he was spending a lunch hour in the Living World. In his home there are 4 aquariums, (48", 24", 24" and an 18" used as a hospital tank) and all these are in the living room. Meachen is a batchelor! He has community tropical but prefers Marine Cichlids, hence he was looking at what choice of such fish were on show.

If anything was of interest he would have to return at the weekend. In fact he had seen some young Tiger Oscar,



Dr. Ford interviewing in the Aquatic section of the Living World in Leeds.

## The Customer's Choice

(continued)

(*Atravatus ocellatus*) and decided to return for some of these. "Why Tiger Oscars?" Because he wanted to breed them and by obtaining a shoal he hoped to get a true pair.

I pointed out that the shoal was probably one family, hence he was planning a brother/sister mating with consequent poor genetic stock. I recommended mixing similar size Tigers from different tanks or different shops.

### Mrs. Whiteark and family

Mrs. Whiteark and the children, were looking at the tropical fish. They already own a 24" tank with goldfish and a Weatherloach in their Bradford home. The family had decided to change to a tropical tank and were at the Living World seeking information.

I asked about the goldfish (worried that they planned to mix the coldwater and tropicals) but the children explained that their friends were going to receive the goldfish and loach.

We toured the dozens of community tropical tanks and the children always preferred the brighter, coloured fish such as the Neons and Platies. I advised them not to buy these fish until their coldwater fish had been moved out and the aquarium prepared for the tropicals. I promised to send them a (free) Beginner's Guide and sent them off to the book section to invest, perhaps, in a suitable publication to read, before choosing the new fish.

### Alan Anderson of York

Like Mr. Meachen, Mr. Anderson was working in Leeds and often spent a lunch hour browsing in the aquatic section of the Living World, especially the marine area, because Alan is a maricult. He owns a Minireel system (43" long) with Clownfish and anemones. The system was working well with no nitrite and low nitrate. In fact, the Carpet Anemones have spread daughter anemones all over the base.

Alan said he was most impressed with the shop but wished that there was an expert in each section to discuss needs and problems. "What problems?" I asked. "Red algae" he explained. "It is

spreading all over the Tufa Rock and onto the Living Rock". I said that the only cure for Red Algae I knew was an antibiotic treatment available in the USA under the name Maracyn, not available in the UK because of EC (and British) laws preventing the free sale of antibiotics. I suggested 'elbow grease' as the simplest cure but Alan had already bleached the Tufa Rock and carefully washed the Living Rock. I could only suggest repeating this as often as needed. Another idea was to install *Caulerpa*, if this marine algae likes the tank conditions it spreads rapidly choking any simpler algae, such as the Red species.

I left Mr. Anderson negotiating for some *Caulerpa* from the Living World's huge display tank of invertebrates and marine plants. At least plants can be safely kept for the journey home after work.

### Mr. Carden of Leeds

Mr. Carden was leaning over the wall to the Living World's indoor pond admiring the display of pedigree Koi. "I would love one or two of those" he said "but I can't afford such fish". He explained that he owned 2 ponds, a simple one in the garden but another that was in the conservatory. This was an extension where the room was heated via an electric wall fan to around 55°F. "What about the condensation problem?" I asked, but he claimed that air flow from the heater and the fairly cool temperature meant that condensation was not a problem and the goldfish in the pond were feeding and growing all year round.

I said that in such a temperate pond he could house exotic goldfish, even in the winter so if he could not afford the pedigree Koi he could keep some equally colourful fancy goldfish. How about some of the Lionheads, Orandas and Waltails on display? "No, no!" he said "I like a fish to look like a fish — only common goldfish for me." Which is a perfectly good point of view!

## The Customer's Choice

(continued)

### Mr. and Mrs. Endersley & Adam

This family live in Leeds and own 2 tropical tanks housed in the living room for all the family to enjoy. One is a Livebearer and one an Egglayer aquarium, which is quite a good idea I thought.

They were visiting Living World to look for Kuhl Loach, but (unusually) there wasn't any in stock. "Why that fish?" I asked. It transpired that they wanted some scavengers for the bottom of the egglayer set-up because all the fish were mid and upper water swimmers. I mentioned that Kuhl Loach (*Acanthopthalmus kuhlii*) are not good scavengers. They are really specialist fishes demanding their own type of aquarium. Especially soft, slightly acid water and a sandy base with plastic tubing for coves to hide in (they are nocturnal).

I suggested Corydoras as a better scavenger and the family were soon delighted by the many species on display and the eye-winking antics of these delightful fish.

### Mr. and Mrs. Blackburn

Also from Leeds, the Blackburns revealed they had visited Living World to buy some fish food for their cat (no, not a catfish, the pet cat!). Actually, cats do love flakes of fish food (especially 'Aquarian' with its fresh fish recipe) and it certainly will do them no harm. When my pet cat (Sheba) refuses a tin of cheap catfood, I mix in some 'Aquarian' flakes to make it more palatable.

The Blackburns were touring the tanks but explained that they would not want to own an aquarium "especially after what happened". They were asked to look after some fish by a neighbour who was on a long holiday. Just feed daily and check the temperature etc. Of course, the inevitable happened. The fish started dying and by the time the neighbour returned not one was left.

I stated that fish are the one pet that can be safely left when you go on holiday for one, two, even three weeks, if adults. In fact the starvation is good for them. Fish oils are stored (like our fat) for lean times so all adult fish can be left

for several weeks without food, giving a turn-over of these oils. A timer can be used for the lights if real plants are present, hence all the neighbour red dot is just check the temperature — there is no need to even lift the lid, which is the best way of ensuring that all the fish the owner left are still around when she returns.

### Mr. Illingworth of Leeds

Mr. Illingworth is a Cichlidophile. He owns a Cichlid community tank and another tank with two young Oscars.

After studying the fish on display Mr. Illingworth chose a *Tilapia maroi*, a 5" specimen at £9. "Why that fish?" I asked. He explained that it was a very good *Tilapia* with no split fins, depth its size. He also said he planned to install it with the pair of Oscars. This worried me and I said so. Oscars can be aggressive, especially if the two are a true pair.

Mr. Illingworth has kept fish for 25 years and in his experience the Oscars accept large fish like the *Tilapia* (whereas a few Neons would soon be considered food).

### Mr. and Mrs. Merton of Morley

It is interesting that Mr. & Mrs. Merton were maricultists from Morley because that is where the famous West Yorkshire Marine Aquarist group meet (in the Angel Public House at Morley). I pointed out the notice in Living World's display board where the WYMAAG meeting were detained, along with Burley-in-Wharfedale AS, Leeds AS, the Leeds contact for the British Killifish Association and the British Koi Keepers Association. All good public relations, every aquarist shop should display such details.

In the case of the Mertons, it wasn't "Why that fish?" because they had come to buy an anemone. The existing anemone had died, leaving its attendant Skunk Clown *Amphiprion akallopisos* distressed.

The assistant manager, Eric Barker, collected the anemone of their choice

## The Customer's Choice

(continued)

ladders were needed and careful prising of the anemone's foot from the base of the tank) whilst the Mertons and I discussed marine fish. They explained that they started with tropicals but changed to marines some 15 years ago. They found that marines were much longer lived animals and so became family pets. One Cowrie was 18 years old when it died and they still owned a 10 year old Wrasse.

The Merton's system was an open undertank filter system with a pond-pump to return filtered water to the upper display tank. In fact, exactly the same

system I use in my freshwater display tank at home. "Isn't salt crust a problem?" I asked. Indeed it is, the Mertons having to periodically clean everything by scraping and returning the crystals to the water.

This is wise. Salt encrustation is not the same formula as the original salts mix, trace elements often concentrate in the crust and need returning to the water to redissolve. Crust can also creep along cables to attack plugs and cause electrical problems. Leads must be connected to the mains by remote plugs, well away from open filters of seawater.

It was fascinating to spend the day talking to the Living World's visitors, there were many more stories, every one interesting, every one different. The exercise was repeated at Dave's Aquarium (BAS, Bolton) which confirmed the diversity of reasons for each customer's visit. Just goes to confirm something we all know ... fishkeeping is fascinating!



Ex-Aquarist, Mr & Mrs Johnson of Bradford, discuss which fish to choose to become aquarist again!

### Editor's note:

This article is the first in a series requested by Dave Sands when he was Editor of 'Aquarium'. Dave's idea was to spend the day in an aquarium shop and ask customers "Why did you buy that fish?" David Ford of Aquarian was commissioned to write the series, but the magazine folded before any could be published. Aquarist's loss is Fishworld's gain!

## A Weekend in Cottle Country

by Dick Mills

Towards the end of October, the Strathclyde Fishkeepers Festival made its maiden appearance. Hosted and presented by four local Societies, Clyde, Scottish Aquarium, Greenock and Inverclyde, the Show reminded one strongly of times gone by, not I hasten to say that it was in any manner old-fashioned, just so many beautifully furnished aquariums on display.

Most people feel that it's the instant, visual appeal of these tanks that encourage newcomers into the hobby and it wasn't just popular tropicals either: a large bowfronted tank housed more Minnis and Sticklebacks than you could shake a stick at, there were Goldfish to admire and there was always an admiring group around Tony Vincent's native marine aquaria. I was surprised to discover not only the fantastic range of fish and invertebrates in his display, but also that he uses natural, locally collected seawater. Several displays were by school-children and there was a large entry for the Aquarium Painting Competition.

Staged over a three day period, the Show did much to bring brightness, colour and a different entertainment to the folks of the Costlenik area of Glasgow; it was also in competition for visitors on the Sunday with the supporters of the big 'footie' game, the Scottish Cup Final (Rangers versus Hibernian — Hibs lost much to the locals' delight!), but the Show had another attraction up its sleeve — an Open Show at the same time and this brought in its own brand of equally-partisan supporters.

I was up in Bonnie Scotland at the invitation of the Show's organisers to give a couple of talks to the visitors, as were Derek and Pat Lambert of Viviparous who also acted as Aquarian Advisory Service experts on the day. So, what's Pete Cottle go to do with all this? Well, since he 'emigrated' north of the Border earlier this year, he lost no time in

reconnecting his aquatic roots to the nearest Society for one thing, but also showed me great hospitality (and the delights of Saturday night Scotchhall Street!) by providing me with accommodation. Peter also made some impact at the Show, putting on two very beautiful Aquascapes for the delight and information of the visitors. I understand he's already been booked by a couple of Societies to explain these phenomena to their members in the not too distant future. Whilst these aquascapes (complete with natural moss furnishings from the local wayside) played no part in the Open Show (such Classes have yet to be included in Scottish Show Schedules), Pete did, as the saying goes, put out a few tidlers on the bench proper and justifiably won a Trophy in his particular fish's Characin Class (again Fish Show Classes differ somewhat to those familiar ones we hold so dear down South).

True to form, the Scottish hospitality was great; I have to say a lunch of a couple of pints of 'heavy' is not the best preparation prior to delivering a talk; I had hoped for some audience support from Pete but when the time came all I got was a snore — he'd had a 'heavy' lunch too!

Breeding fish in Scotland is a whole way of life, every one's an expert at it; it shouldn't just be due to the wonderfully soft water, there does seem to be genuine interest in breeding anything and everything — they won't take 'no' for an answer. The accompanying photos, by Hughie McGuinness, will give you a good idea of the event, and Andy Smith and Paul Millar, along with all the rest of the hard-working gangs from the four Clubs, can be well satisfied with this inaugural venture — it certainly deserves to succeed and continue in the future.

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## I Need A Bigger TANK!

Final Part of a Series by M.R. Emerton of Northampton

Following on from the previous problems illustrated in my last article, another problem that has evolved is a constant inclination for the pH to drop to levels of pH4 - pH5. This is obviously due to the heavy biological load on the filters and the level of carbon dioxide and urine produced by the fish. In an attempt to combat this and to protect the filters (filters don't function well with a pH lower than pH6), I regularly vacuum out the filters and rinse the foams. This prevents the build up of rotting debris that contributes to the acidification process. Water changes also help to stabilise the pH as the new tap water contains buffers to stabilise it's pH. However, to stabilise the pH in the tank I add Sodium Bicarbonate BP very slowly in a drip feed over 24 hours and this holds the pH around pH7 for a few days. To assist with the need to take daily pH readings I purchased an electronic pH meter as I was getting through too many liquid test kits. I also test regularly for all of the usual pollutants, as well as checking the hardness and Nitrates occasionally.

The tank is lit by a 14 watt tube on a timer unit, coming on at 06.45am and going off at 9.00pm. There is a twin 60 watt unit fitted in the lid to allow better observation should a problem occur. The floor of the tank has a light scattering of swimming pool filter sand to give the Nigres something to sift around in but not enough to compact down and cause any bacterial problems. Maintenance consists of regular water changes, water testing, attention to filters, servicing of pumps, all the usual things associated with keeping fish but in a greater amount than normal.

I must say that I get immense pleasure from my Catfish, but will not try to deceive you that it takes a lot of constant hard work to keep things going and to keep all in 'top condition'. You really have to work at it, there is no such thing as 'I'll leave it until tomorrow'. Feeding time must rate as the most enjoyable time and it is not often these days that I feed them alone, everybody

wants to watch. In fact, only today George popped round with a bag of fish heads, so with a quick rinse, we went out to the shed and spent half an hour watching the feast. In fact today, for the first time, I saw my Pangasius take a whole mackerel head straight down.

Everyday I take several recordings to assist me in monitoring the welfare of the fish:

1. Temperature of the tank
2. Temperature of the shed (max + min)
3. Number of hours heaters have been on (I have wired in an hour counter to the circuit of the Digital control power lead to the heaters)
4. Number of units of electricity used that day (all the power for the fish goes through a separate meter)
5. pH of tank

Every morning at approx 07.00am I go out to the fish house to do these recordings and check that all is well. I record the power units used to assist me in calculating the cost of my hobby. I may do a separate article to cover this subject as it is quite revealing. I have added several facilities to my shed and system that include connecting the shed to my house alarm system and installing a power-out alarm to warn of power cuts or failures in the shed. All the electrics are protected by an R.C.C.D. and a two-way radio FM intercom connected to the house keeps me in contact and is especially useful so I can listen to the Kids out in the shed feeding the Cats. (I can also do the reverse and listen to the shed to hear that all is well and sounds OK) - my wife thinks I'm crazy!

Over the 2 1/2 years I have had the fish I have learned a lot about their care, needs, likes and dislikes. Some of the fish have become quite tame and hand-feeding, especially the 2 Shovel-noses, but I must admit that I don't attempt to hand feed the Pacus; have you seen their teeth and when you see what they can do to nuts you keep well clear. I spend hours, just watching them swim around; the Nigres sifting the sand looking for morsels of

## I Need A Bigger Tank!

(continued)

food, the Shovel-noses gliding from one end to the other then resting with a watchful eye on all that pass them and the Red Tail always seeming to be prowling looking for food, stroking everything with its thick white feelers. The tank is quite an active arena, but with 32 square feet of tank floor, there is ample space for the large cats to settle on the bottom after a large feed.

For the future, I may have to take my own advice, referred to in my title, as my aim is to allow the fish to reach their true potential as much as is practically possible within the confines of a hobbyist fishkeeper's lot. I will always be

monitoring the tank and it's inmates as I am fully aware of the destructive and aggressive qualities my fish possess and would rather move a fish on than try to keep it in unsatisfactory conditions. I aim to give my fish the largest area of water that I can provide and the best water quality attainable within the system. Alongside the provision of a suitably tailored diet that is varied and nourishing, I am always looking for any other way I can improve their lives. So far, I have not experienced any severe health problems or disease with my Cats, but have seen quite a few sick ones kept in far from adequate conditions. Also I have seen Cats damaged by their owners using the wrong or inappropriate equipment to move them.

I would advise anybody seriously considering keeping these Cats to do several things.

**First**, sit down with a few good books and read up about the fish available, paying particular attention to: Size; Dietary requirements, Water Chemistry and Compatibility.

**Make** a list of all the equipment you will need and familiarise yourself with its function and facilities.

**Look** at the total cost of keeping such beasts, especially running costs of

equipment, provision of back-up spares or replacement in case of failure at very quick notice. You certainly cannot wait until tomorrow to replace the pump and 'sats law' states it will break down at the least opportune moment. It may be necessary to have second pumps etc. already to go should a breakdown occur.

**Talk** to people who actually keep these fish as they often know more about the Cat's requirements than can be found in books. There are many Clubs and Societies available to fishkeepers and for a small fee a wealth of information is available to the potential aquarist.

**Don't** rush and skimp on the basic system, you can always add on later more technology or ideas but you cannot easily change the tank and style of initial filtration and these Cats don't like being messed about too much.

If you cannot provide the space, time and input these fish need then please don't even start your venture. Many people buy small, cuddly looking Red Tails and haven't a clue that in 2 years time they may be approaching three to four feet in length and that trying to maintain them in a tank that is too small only serves to stress the fish and disappoint the owner.

Finally, keeping these fish gives me immense pleasure and I have met many people over the years with a varied array of systems, but with one thing in common... **we all love Catfish**... especially the **big ones**. If you would like to visit my system and see my Cats you are most welcome and if you wanted to make a day of it there are plenty of Cats for you to visit around my area. You can contact me on

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by **Dr. David Ford**  
Senior Consultant

**Q.** I read in a fishkeeping magazine that Glassfish are being injected with colour dyes, which is very cruel and against the Law. Before I read the magazine, I bought one but the dye was wearing off and the fish was dying. If I see injected fish in an aquatic centre, what do I say? The fish are very cruelly injected in foreign countries. The shops must know that the fish is injected when they buy them and the dye gradually wears off and kills the fish with it. The shop where I bought the one that died charged £2.35 but a few weeks ago I went back and they were selling a natural, clear Glassfish for 0.75p, so I spent £2.35 for a fish that died the next day and 0.75p on the same fish that has lived for weeks! Please tell me what to do if I come across this situation again. G.D. a 10 year old aquarist

**A.** Yes, it is wrong (but not illegal) to dye fish and if everyone stopped buying them the trade would soon end. If you do see any more, please report it to the Ornamental Fish Industry (UK), the body who issue Traders' Certificate of Approval. Write to them giving details to: OFI (UK) Ltd., Bedford Business Centre, 170 Mile Road, Bedford MK42 9TW.

**Q.** A tropical tank stocked with 4 Zebra danios, a pair of Gouramis, a Rainbow Shark and 2 Marbled Angelfish; the male Gourami bites everything in the tank (apart from the Rainbow Shark) constantly chasing the female Gourami whose tail is getting eaten away. What can I do with them? Could it be I'm not feeding them enough? D.P.

**A.** In all aquarium communities there is a 'pecking order', but this is usually confined to 'showing off' displays although one aggressive fish may decide to terrorise individuals, rather than dominate the whole tank, in which case biting and bruising may well be inflicted (some Cichlids often do this and I've even seen a female Black Molly behaving this way too). In your case, the Gourami is probably a young male intent on breeding; he wants to clear the aquarium so he can blow a bubble nest. The female senses that the community tank is unsuitable for spawning and does not respond to his advances, hence the aggressive reaction. This is natural behaviour; so nothing can be done to change his attitude. You can always breed from him but you need a separate, well-planted spawning tank and a female fat with eggs. Otherwise, swap him for a more placid fish!

# Even experienced FISHKEEPERS have problems



If you have a catastrophe in your catfish tank, you're pondering over your pond or your plants are a disaster area, do you know who can help? Fishkeeping Answers has an expert answer to every question. Created to help all fishkeepers get the most out of their hobby, we can help you make a success of keeping healthy fish, breeding, setting up a new aquaria for tropicals, marines, coldwater or all three.

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**FREE HELP AND ADVICE FOR BEGINNERS & HOBBYISTS**  
For advice on any fishkeeping topic write to: Dr David Ford, AQUARIAN ADVISORY SERVICE, PO Box 67, Elland, West Yorkshire WF8 0SJ.

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## Trade News

If the mild weather holds up, outdoor water temperatures may not sink below 10°C and your pond fish may well be looking for that last chance to stock up on food which they can easily convert into body weight and energy stores to ensure successful, over-winter survival. Usually between November and March/April fishes' natural appetite and activity die down but should they show interest in feeding, then floating food hoops, KOI SEASONS and 3 SEASONS, from Interpet represent premium food which are easily digested. Although of low density, these foods contain twice as much food (and half as much air) as other competitive 'extruded stick' type foods: sold by weight, rather than volume, they are excellent value for money. 3 Seasons is suitable for all types of pond fish whilst, as its name implies, Koi Seasons has been specifically formulated to meet the special requirements of Koi.

Looking to give (or receive) a really useful aquatic gift? The following Interpet attractions are both very acceptable in themselves and may additionally save you money or include extra goodies.

The objective of all dedicated Presidents should be to thoroughly analyze all situations, anticipate all problems prior to their occurrence, have answers for these problems and move swiftly to solve these problems when called upon.

However ...

When You

- are UP to your A @ S!
- in Alligators
- It is difficult to remind yourself that your initial objective was

**TO DRAIN THE SWAMP!!**

Courtesy of Federation of New Zealand Aquatic Societies



The POWERHEAD and POWERFLOW aquarium pump/filtration systems will include vouchers (redeemable until October 1994) for free bottles of FRESH START, the top water conditioner.

A special banded 'aquarium check' promotional pack for the Festive Season combines, in a single package, the Easy-Test Nitrite and Easy-Test pH Broad Range tablet-based test kits at a saving of £1.50.

The INTERPET Encyclopedia of Freshwater Tropical Aquarium Fishes will include a free, full-colour Freshwater Tropical Fish Wall Chart and, of course, there is a new 'Interpet Guide to ...' title now available (see the Book Reviews section in this issue). Details of all Interpet products can be obtained from:

**Interpet Ltd., Interpet House, Vincent Lane, Dorking, Surrey RH4 3YX (Tel: 0306 881033 Fax: 0306 885009)**

After a flurry of excitement a few years ago, when a much-vaunted 'shell-less' version was available, the San Francisco Bay Brine Shrimp is making a complete comeback thanks to Chris Denmark of Tropical Sea.

With several years experience of Brine Shrimp Aquaculture, Chris is now distributing the San Francisco Bay Brand of Brine Shrimp Eggs in the U.K. as well as other fish nutrients. He has produced a four page fact-file on Brine Shrimp hatching - did you know it is advantageous to keep the eggs in the fridge between hatchings? Could you estimate the right amount of shrimps to feed your fry without expensively over-hatching? Could you raise adult shrimps which would then breed for you? With the right information you need never lack confidence in producing the ideal first-foods for your fry. Many readers will have met Chris at Weston this year and found out the facts for themselves; for others the mail-out will help spread the word (SF Shrimp) or you can write directly to Chris for information on all his products at:

**Tropical Sea, The Mews, 112 Watling Street, Wallington, Telford, Shropshire TF1 2NB (Tel: 0952 222022 Fax: 0952 597487)**

## 1993 F.B.A.S. SUPREME CHAMPIONSHIP RESULTS

There were several familiar 'fish faces' on the bench for the Final Round of the 1993 F.B.A.S. Supreme Championship at Weston this year, and it was obvious that the outcome was going to be a close run thing.

No less than 36 entries featured in the live-up and here the gentleman given the arduous task of finding the winner, John Edwards of East Kent A.S.G., gives us his rundown.

Entry	Species	Points	Comments
1	Tilapia buttikoferi	82	Small in Size
2	Mystus gulio	80	Body scratches
3	Aequidens itary	80	Poor department
4	Corydoras triseriatus	76	Poor body shape
5	Barbus 'adessa'	76	Poor finnage
6	Acanthorhodus micropterus	69	Poor body shape/colour
7	Natropis lutrensis	74	Small
8	Barbus cuningii	76	Dorsal fin fault
9	Zoogonectes 'Crescent Zoe'	79	Nice, but small
10	Priopichthys annectens	79	Average fish
11	Cobitis taenia	78	Thin body
12	Lebisia arthurus	75	Nice body but no size
13	Angel	77	Average but small
14	Rasbora pauciperforata	81	Very nice fish
15	Rasbora borapetensis	79	Average fish
<b>* 1993 F.B.A.S. Supreme Champion</b>			
16	Betta splendens	85	owned by Andrew Feast, Hasings A.S. Making a successful comeback performance, this little fish was very hard to fault!
17	Poecilia chico	78	Looked distressed
18	Pterophyllum alium	79	Good example
19	Moenthausia calleri	79	Average
<b>2nd</b>			
20	Anostomus ternstroemi	84	Very nice fish owned by Bob Lemmon
21	Microgeophagus multispinoso	78	Looked over-mature
<b>4th</b>			
22	Corydoras geryi	83	Nice fish owned by A. Payne
23	Corydoras caudimaculatus	77	Average
24	Poecilia reticulata	71	Not in with a chance
25	Brachyrhaphis holdriggi	77	Small
<b>5th</b>			
26	Cobitis taenia	82.5	Far better than No.111 owned by M. Irvine
27	Acanthorhodus micropterus	69	Poor condition
28	Xiphophorus helleri	72	Poor finnage
29	Xiphophorus variatus	72	Poor department
30	Xiphophorus variatus	78	Better example
31	Pseudocanthicus leopoldicus	80	Finnage faults
32	Pterogopichthys gibbiceps	81	Closed fins
<b>6th</b>			
33	Barbus daruipani	82	A little fin damage owned by W. Davies
32	Barbus pinnurolatus	80	Caudal fin fault
<b>3rd</b>			
35	Theraps fenestratum	83.5	Good specimen owned by S. Hunter
36	Pseudocanthicus spinosus	79	Poor department

**QUESTIONS ON FISHKEEPING?**

The AQUARIAN Advisory Service has, for many years, provided fishkeepers with expert help and advice on all aspects of fishkeeping. The service is free and all letters are dealt with personally by our Senior Consultants.

PLEASE WRITE TO:

**aquarian**

ADVISORY SERVICE

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