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Magazine®



aquarian

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VOLUME B No.2 £1.50

Fishworld Magazine is now mailed to over 10 different countries and it is hoped that from these distant lands we may soon be receiving articles of their aquatic experience.

The FBAS and FISHWORLD magazine attended both BRK Gardeners World and The Hampton Court Flower Show. Great interest was shown in the magazine and many subscriptions were taken. To those societies who hoped for a free quarter page advert in this issue to advertise their Open Show, I regret that this has not been possible this time due to the amount of editorial received. In fact, we have a number of articles being carried over to our December issue.

To those who send in editorial items, please keep them coming and remember to send them in good time for publication to the Features Editors, Dick Mills. Thank you.

Club News items for the December issue should reach me no later than the 1st of October.

Yours sincerely

Peter A. Fuzze

Peter A. Fuzze, EDITOR

Material for the next issue of this magazine should be in by the 1st October 1993, and sent to either myself at 9 Upton Road, Hounslow Middlesex TW3 3HF
Tel or Fax 081-570 0934
or The Features Editor, Dick Mills,
10 Rosken Grove, Farnham Royal,
Buckinghamshire SL2 3DZ.

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FROM ... your Chairman



Since the last issue of FISHWORLD, the Federation will have participated in no less than four major events. The first was our own FISHWORLD '93, followed in swift succession by the BBC GARDENERS' WORLD LIVE EXHIBITION at the National Exhibition Centre, Birmingham, the HAMPTON COURT FLOWER SHOW and, as we went to Press, preparations were in hand for the ROYAL COUNTY SHOW at Stoneleigh, Warwickshire.

Of course, the first of these was our very own Show, so it is not surprising that we are most proud of this our first achievement in a new type of Show. Comments from visitors were most encouraging, with all remarking on a great new outdoor atmosphere. It was a pity that the first day was so damp, but the Sunday made up for it with sustained sunshine throughout the day. We are indebted to Tony Purdy, of Brit Koi, for the opportunity to stage our event at his premises.

Obviously, we did not have such a controlling hand at the next three events, being part of someone else's Show, but we still managed to make a substantial contribution to their successes. Our theme of Portable Water Gardening has attracted much appreciation and praise from those who have seen it, most people have been only too delighted to receive practical, experienced advice from our Stand's staff who are not only impartial, but totally committed, to give out information unrestricted by commercial pressures and to direct fishkeepers to their nearest aquatic Society.

I am proud that the Federation has acquitted itself with such style and dignity during the course of these events, although the accent has been on hard work, long hours and many a long mile, our team has come through it with good cheer. I would like to thank everyone concerned for jobs more than very well done, and look forward to working with you all (together with our sponsors Interpet), and meeting our guests, especially Dr. Herbert Axelrod, at our own next very big occasion — the SUPREME FESTIVAL OF FISHKEEPING at Weston-Super-Mare.

Joe Nethersell

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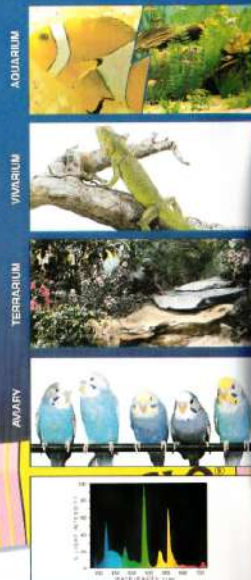
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	IN.	IN.	W. (MM)		(HOURS)
14	10	36.12	1 25	175	7,500
15	18	42.74	1 25	175	7,500
20	24	58.98	1 25	295	9,000
25	30	74.22	1 1/4	320	9,000
30	36	89.46	1 1/4	320	9,000
40	42	104.70	1 1/4	320	20,000
45	48	119.94	1 1/4	320	20,000

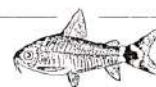
What's the difference?

by C.A.T. (Cyril) Brown
Riverside A.S. & Judges & Standards Committee Member

FOR this edition of FISHWORLD magazine, I have chosen two species of *Corydoras* about which a great deal of confusion has been apparent. It is unfortunate that literature is still available carrying incorrectly captioned pictures etc., whilst this should not inhibit correct identification by experienced aquarists, newcomers to the aquatic scene are, at the very least, liable to be misled when endeavouring to extend their breadth of knowledge regarding these particular species.

CORYDORAS HASTATUS

(Eigenmann & Eigenmann)
Size: male 25mm, female 30mm



Basic colour grey to pale yellowish brown with the chin, throat and belly whitish. A narrow black line commences behind the head and runs along the junction of the body-covering scutes to terminate on the caudal peduncle, a further short black line is present adjacent to the ventral contour running between the pelvic and anal fins. A black, almost diamond-shaped (sic) blotch is present on the base of the caudal peduncle continuing on to the caudal fin where it is edged by white areas, both in front and behind.

To further confuse the issue, *Corydoras hastatus* has, in recent years, been termed (by some) *Corydoras astrae*; this, we find, to be a junior synonym and should not be used.

CORYDORAS PYGMAEUS

(Knaack) Size 35mm



Basic colour grey with a greenish sheen, chin and belly silvery-white. A prominent black stripe commencing on the snout, crosses the eye and terminates in a spear-shaped blotch outlined above and below with white areas. A short black stripe is present adjacent to the ventral contour running between the pelvic and anal fins, a third broken stripe is found below the main stripe on the anterior body scutes and, towards the dorsal contour, short black markings on the scutes give the appearance of another broad, broken stripe.

The above fishes, together with others in the series, will be featured in a new series of books to be shortly published by the FBAS. These will not only identify fishes and highlight the differences between them, but will also cover Temperature, pH, Ecology, etc., as well as compatibility with other fishes and breeding procedures. The above sizes are taken from the current FBAS No. 6 Booklet entitled National Show Fish Sizes and Technical Information.

C.A.T. Brown 1993

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Cardinal Thomas Wolsey Would Have Loved It!

Once again the 'villagers' arrived to transform the banks of Hampton Court's Long Water into their very own close-knit environment for the annual Hampton Court Flower Show — this year presented by The Royal Horticultural Society. Right from the moment the first pickaxe (or JCB) bit into the turf you knew that if you were stuck for a lump of rock or a helping hand any of your 'neighbours' would be only too pleased to help — even though they were all in direct competition with each other in the hunt for awards.

The Federation of British Aquatic Societies' display showed how Water Gardening could be enjoyed on the most modest budget, within the most restricted spaces too, with their **Portable Ponds**.

Here too a Pond Installation demonstration (albeit on a table top) took the novice through all the planning and practical steps whilst a short step away expert advice on filtration systems was on hand. Finally, a Society Location Service provided a back-up source of further help should newcomers require local, practical assistance if difficulties arose in the future. As at its NEC appearance, the display was magnificently decorated with plants

by courtesy of **Anglo-Aquarium Plant Company**. One pond contained specimen blooms of water-lilies which included 'Water Pogies', (small white), magnificent new variety 'Maya' (cerise pink), the ever popular 'James Brydon' (usually listed as a red but really a nice rose pink), 'Texas Dawn' (new yellow variety from America), these were provided by Harry Hooper. Harry Hooper is UK Branch Secretary and General Secretary International of the Water Lily Society. Although it was hard work — six actual days of the Exhibition, plus just as long during build-up, plus breaking down on the last day — there



The portable ponds and cube aquarium were a great attraction. Moments of light relief mixed in with the serious business of dealing with queries. To give a few examples:

My pond has two depths, 3ft and 5ft. I've a waterfall and external filter but the pond remains dirty. I've never had to clean out the filter since it was put in — it's spooles all the time.

(Response after some pause for thought)
You have got the water pump in the deepest part of the pond, haven't you?
Oh, no, it's in the shallow end, right by the waterfall.

My pond has got problems, will this cure work?
You need to dose accurately, how much water is in your pond?
Right up to the top!

My tadpoles haven't developed legs, yet, but those of my neighbours have.
That's interesting, perhaps you've got the new strain of Peter Pan Tadpoles, or else they're all of crank — legs!

Then there was the lady who'd heard about the oxygenating capabilities of a completely filled goldfish bowl, so she only filled her TANK halfway up — men though it tapered outwards towards the top, thus giving her the maximum surface area when it was completely filled.

Can you tell me a guaranteed cure for all my pond problems?
Several yards of cement — fill it in.

Obviously the replies got more and more outrageous (after pre-judging whether the recipients could appreciate the sarcasm or not) as each day progressed, but in general the enquirers were more than pleased to obtain practical help from genuine fishkeepers.

Cardinal Thomas Wolsey Would Have Loved It

Although there were the usual number of ponds to be seen, the differences between them was not great, many went for the 'natural pond' look and there were fewer formal designs. The

RUSHING WATERS theme of the **Aquarist & Pondkeeper** was eye-deceiving, water from a top pool careered around a curve only to promptly disappear from view, emerging several feet away as an equally racing current in a horseshoe-shaped stream which, in turn, disappeared too. Obviously, some very clever underground plumbing was responsible for this phenomenon which clearly baffled one personal enquirer who wanted to know the cost of the bottom section without realising the two halves were connected. Last year's impressive Slate Garden was transformed into a more horizontal display, again featuring racing torrents for the **TESIDE RENAISSANCE** by **Heritage Stone**. The aptly-designed **TUDOR ROSE POOL** by **Pantiles Aquatics** was probably a technical headache to build and to balance the water flows around the various petals which formed the Rose. Each petal's colour, incidentally was mirrored by the colours of the Kai swimming in it. It was a real pity that there wasn't a nearby really high vantage point from which to view, and appreciate, the whole design. Everyone was looking to see whether Tony Howells could win again for **Tetra UK** with his island of **Dreams**, superbly-engineered pebbled islands in the midst of the pool (just how did those pebbles stay in place?) headed by a triple waterfall, but he lost out on the day to the **CALEDONIAN GARDEN** by **Dorking Aquatics**. Their natural pond was surrounded by a mass of native plants and flowers, based on a Scottish theme, much of the all-natural materials came from North of the Border but reflecting the Company's special interest in wild flowers, all the aquatic and bog plants came from the Company's own extensive Nurseries. (Incidentally, maybe the Federation of British Aquatic Societies should share

continued

some credit for the winning Company, for the past two years the Company exhibiting alongside the FBAS has won!).

In addition to exhibits in the Aquatic Village proper, there were other garden designs that featured water, perhaps the most dramatic was the combination of fire and water in the Antony Nolan Phoenix Garden by the **Antony Nolan Bone Marrow Trust**, maybe the most intriguing were two exhibits on the **Ministry of Agriculture, Fisheries and Food**, the **Baltes Black Fountain** (two cast Storks rotated in the pool and water from their beaks indicated the hours and minutes marked out on the pool's surround) and a revolving marble ball on a bed of tiny water jets. Vying to be the most impressive must have been the **TASMANIAN GARDEN** in the **Daily Mail Garden Pavilion**, huge, high rockfaces, tumbling streams and waterfalls, plus a permanent wet tropical mist and exotic birding. A complete contrast to the pleasure water can bring was shown by **Christian Aid** with their **ERITREAN TERRACED MOUNTAIN**. Here one side of a very realistic rocky desert scene illustrated how flash-floods quickly erode precious soil, the reverse side showed just how by beneficial terracing and efficient water and soil conservation practices, agricultural yields can be quadrupled. A very thought-provoking, and sobering display.

Summing up, the spirit of the Show continues to be fiercely competitive with the tempering of good fellowship, a very friendly Barbecue (courtesy of Dorking Aquatics) got things off to a good start on the first day, an event duly repeated by ourselves at the end of the week. We'll all be there next year, picks and shovels at the ready, bringing all that's best in Water Gardening to the thousands of daily visitors. Now, whilst we may well be experts with ground-level water, it only we could stop it raining on the odd day or two.....

FBAS goes Gardening

The Federation was delighted to accept an invitation to appear at the **BBC Gardeners' World Live Exhibition** held at the NEC recently, except for one thing — it followed immediately **FISHWORLD '93** at Syon Park! However, whilst the team was still in the automatic-pilot 'load-in-on, unload-it-off' frame of exhausted mind, it didn't seem too bad a job, working on the principle of what you don't have (rest!) you won't miss.

The advance party duly reached the NEC on Monday, as per schedule, but a transportation breakdown meant that the second wave only reached the venue on Tuesday evening — and the show was to open on the Wednesday! However, in the best show-business tradition, the Show did go on although it was a bit of a rush, and a bit intimidating when you saw the size of the crowd coming through the door and you were still putting the final touches to the display! So, how come the FBAS was with the green welly brigade?

The answer lies, not in the soil, but in the Federation's theme for this year, which is **Water Gardening**; we were there to advise on any water gardening problems and also to encourage the starting up of this aspect of the hobby. By decorating the surrounds of the FBAS Stand with our new familiar 'portable ponds' we could demonstrate just how little space was necessary to have a water feature — any free space on balcony, conservatory or patio could be used with the advantage that should you decide to move, then you take the feature with you instead of, as in the case of a permanent pond, having to start all over again at your new address.

The public appeared to respond to our appeal to solve their aquatic problems very heartily — the stand was busy throughout the five days of



Bob Nelham's welcoming smile lasted all through the show.

the Show with questions both complex, simple and sometimes downright daft. Naturally enough, the emphasis was on coping with either green water and blanket-weed so it was fortunate that we were able to recommend Interpet's products in this respect, especially as they were sponsoring our attendance at the Show. We were also fortunate, by courtesy of Anglo-Aquarium Plant Company and China Dream, to decorate our area really attractively and we thank these Companies for their valuable support.

Despite the accent on gardening, many people were pleased to receive details of their nearest Societies and, of course, were also given complimentary copies of this magazine. One or two people actually asked (in embarrassed tones) if they could seek advice on aquarium-kept fish too! One of the worst problems, for us, was the time spent on the feet, five days with little let up does cause some discomfort and, as we were the only Stand with live fish on display, we got all the fish queries too!

It is debatable or, perhaps more correctly, indefinable, exactly what advantages will come our way from such an exhibition, few of our own products were applicable but the exposure can do nothing but good, it is coming to the point where the trade automatically seem to expect us to be there, and coping with that sort of challenge needs *but it was too much* a good deal of support and energy.



for Alan Bensent

The Fishkeeping Event of the Year

THROUGHOUT HISTORY there has been the tremendous occasion when the right person has been at the right place at the right time, but usually no more than a combination of two out of three is the norm. At this year's **SUPREME FESTIVAL OF FISHKEEPING**, there is the opportunity to see everything come together over one fabulous weekend.

The right person will be no less than **Dr Herbert Axelrod** — it's as simple as that. World famous for his fish-collecting travels and as producer and mainstay behind the massive range of TFH publications, there should be nobody willing to pass up this opportunity to hear him speak and see his presentation. Like Halley's Comet, such luminaries pass through our time-zone only rarely and a lot of people will have to admit to being of a certain age if they remember his last visit.

The right time will be November 5-7th 1993.

The right place will be Pantins' Sand Bay Chalet Hotel, Weston-Super-Mare, Somerset.

This year's Festival (again generously sponsored by INTERPET) will include Trade Displays, Audio-Visual Presentations, Specialist Society Displays, Judges' Seminar, the European Open Shows and, of course, the **1993 FBAS SUPREME CHAMPIONSHIP**. Again, the accent of the whole weekend will be on information about fishkeeping; there will be many demonstrations, with plenty of opportunities to ask the experts from Trade and Hobby alike all those nagging questions. It is aimed to make the festival an all-family affair and the full facilities of the Centre will be available to all aquarists staying for

the weekend, however, as Sand Bay is an 'adult Centre' there are no entertainments for the 3-10 age group and regrettably accommodation for this group cannot be offered.

The price of this 'Weekend' will be £59.00 per adult, £37.00 for younger aquarists (11-16s), £25.00 (6-10s), £10 (3-5s) and 2 year olds and under come FREE. The availability of shared accommodation is limited so be sure to book early! The price includes accommodation for Friday and Saturday nights, full English Breakfasts on Saturday and Sunday mornings, Saturday evening meal and Friday and Saturday evening entertainments. Meals on Friday evening, Saturday and Sunday Lunches are available at extra cost. **A deposit of £15.00 per person is required at the time of booking.** (Cheques made payable to FBAS please). Tickets for day visitors will be available at prices to be announced. Full details can be obtained from the contact addresses below. To avoid disappointment, particularly regarding the popularity of our guest speaker and to make sure of getting your exact choice of accommodation, please send your bookings, entries etc. to the correct address.

Accommodation Bookings & enquiries to:

Colin Richards, Beechwood Cottage, Long Grove Wood Farm, 234 Charlridge Lane, Chesham, Bucks HP5 2SG (Tel: 0494 773094 Fax: 0494 772744)

Trade Bookings & enquiries to:

M. Clarke, c/o Interpet, Interpet House, Vincent Lane, Dorking, Surrey RH4 3YX (Tel: 0306 881033)

Specialist Society Display Bookings and enquiries to:

John Netherell, 8 Aconia Avenue, Brentford, Middlesex.

1993 FBAS Supreme Championship entries & enquiries to:

Alan Henderson, 5 The Nook, Corby Village, Northants NN17 1XA.

Mutual Support or A Clash of Ideals?

by Paul Corbett, Society Support Officer

To some, the whole machinery of the Federation (and other similar organising bodies) appears to be biased towards the showing aspect of the hobby. This is probably true for, in order to maintain strict rules, regulations and good order throughout the whole of the season, a good deal of dedicated effort is required, but just how much effort may not be fully realised. Of course, basic Show Rules, Judges (together with their supporting services) can be appreciated; but there is a 'follow-up' to these 'on-the-day' services too. Throughout the year all manner of details about Shows are being accumulated and fed into the system to streamline, improve and generally anticipate problems for the coming year. Statistics of fish sizes, new species identification, winners, numbers of fish in Classes, where Trophies were allocated etc are all useful facts to be considered in the cold light of day during the winter weeks.

One of the most interesting (and important!) collection of facts are Show dates and their changing patterns: how many Societies regularly hold annual Shows, and where in the year they occur; how many new Shows come into the calendar and how many fall by the wayside. It is fair to say that, given reasonable notice of a new Society Show, every effort is made to see that it is well publicised and well supported by whatever organisation it comes under, but otherwise the Show Season is pretty much a cut-throat affair with many Societies chasing exhibitors and vacant dates in the ever-increasingly crowded calendar; following up its first Show, any new host Society is expected to fend for itself and gets no more favours.

There have been quite a few occasions when several Shows have clashed on the same day/weekend (five Shows on the same day in very recent memory) but why do they do it? Some Societies may indeed be fortunate to have regular venues year after year but are usually tied to set dates for these (especially when booked through local amenities offices). Societies facing venues' rents ever-rising may well change to cheaper sites — but at different dates which is bound to clash with someone else's date!

What's the reasonably geographic distance between Shows to expect non-interference with support? 100 miles radius? A popular Trophy Class can soon upset that theory!

There used to be some 'clearing house' system for Show dates when things were a bit more flexible and with fewer Societies hosting Shows. There is still easily available information on Show dates if you know where to look: the aquatic Press publish dates but usually only for the immediate future month or so; in order to distribute Trophies and other Show Award packages, managing organisation's Show Officers must be ahead of the race, but they, in turn, must be given a fair chance to do the job and help Societies into the bargain. All regular Show-holding Societies have a good idea when their Show is going to be. Is it too much to ask that these dates are communicated to everyone concerned by the end of each current Show season? Returning to that new Society Show, a phone call to the right person, will result in a 'slot' in the calendar being that much easier to find.

Mutual support or A Clash of Ideals?

continued

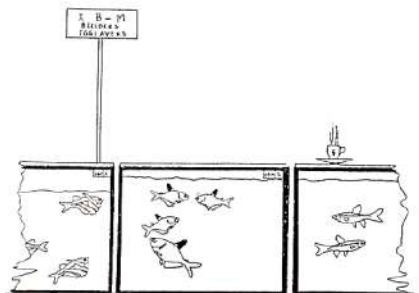
However, apart from the above, to get support for your show it is expected by your supporters that you will support their own Show in return (or even in advance if necessary). Take for example a Show in one area that 'clashes' with a Show say, 100 miles away; each Show should naturally expect (and get) support from its immediate surrounding neighbours but in areas where there are few local Societies anyway, the only recourse in the meantime until local support is built up again is to avoid clashing Show dates. Two such Society-depleted areas are, according to recent research, Birmingham and Oxford. Constructive, freely-available advice is on hand to those seeking help in setting up Societies in these areas but, even if those 'gaps' are filled with Show-holding and Show-supporting Societies once more, co-operation and

information-sharing on Show dates is still not only vital ... but even more so.

The FBAS, for instance, has a special Society-support service for Shows; it can provide information on Societies in all, or any local areas that conceivably would support your Show, additionally it also knows when the vast majority of shows are held (or likely to be held).

SOCIETIES ARE URGED TO MAKE USE OF THESE SERVICES: for the sake of a small charge to cover production costs your Show could be better-supported and, better still, be the only one in that area on that day!

Please send details of your Society's Show date to: Paul Corbett, The Orchard, Galcombe, Isle of Wight.



To think I warned him not to eat three of those damned Weetabix!

Has the Earth Moved for you lately?

LEST, gentle reader, you think that FISHWORLD is conducting some kind of survey into the more private aspects of your personal life we had better move quickly on to explain that we are talking literally here, and the effect that genuine earth movements may have on your pond.

It hadn't occurred to me until recently, when I was reading up something else, that we are very fortunate in this country in matters climatic and seismologic, very rarely does our climate reach extremes of anything for any length of time and, similarly, the number of ground tremors can be counted on the finger of one hand. What stimulated this little piece (no, not back to the title again please!) was the discovery that liner ponds were the most popular in the USA even for large, formal designs, where we would assume that concrete would have been more suitable. At first, I put it down to money-saving attitudes, but then I thought that in the affluent States such as California they'd hardly miss a few thousand dollars when installing a status-style sized pool. The reason for the preference for liners is simply that many sites, especially on the West Coast, are on the dreaded San Andreas Fault along which any regular tremors would soon crack concrete, although lined ponds can tolerate such earth movements.

Of course, earth movements are not only the result of earthquakes and, coming right back home again, the recent earthship along the North Yorkshire coast with the loss of a prominent Scarborough Hotel is a good example of this. Up until only a short time ago, most of the country was in the grip of drought conditions and severe water-conservation restrictions, the effect of returning water, in the form of rain, has had a profoundly disturbing influence on ground structure, to say the least, in some areas. Over the last few years,

since we moved into our present home, I have even noticed some changes to contours in the garden due to subsidence but not anything drastic, I'm glad to say.

Coming back to ponds again (about time too, I hear you cry), it may well be worth checking around those concrete ponds, dropping the water level a little to investigate if there are any beginnings of cracks or re-settlement occurring. Maybe you have noticed some water-loss but put it down to excessive evaporation during the warmer periods, could there be a crack in the concrete lining of the pond or in the cascade? Has the fountain's foundation been moved off-vertical with the result that some water is projected on to the lawn whilst you're at work (or on windier days)?

However, water loss is not the only worry here, with any ground subsidence, pond surrounds should be areas for concern too, the slightest unevenness, or cracking, the paving could spell trouble with an unsuspecting trip toppling someone into the water. Check too those Japanese Pagodas, lanterns, Bird-baths and statuary around the pond — they may look safe enough but being dislodged even only a degree or two out of the vertical could spell danger, especially for any toddler or elderly person that knocks against them.

Earth movements, despite their cause, can often lead to unsuspected, unforeseen consequences for the fishkeeper, and so too for other people — now we are back to the title again!

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completely possible. On the other hand, where a pond is a practical possibility there are pumps of suitable size and performance for the 'real thing', no matter what size of pond. With over 50 years of experience built into them, **Little Giant Pumps** can fulfil all needs.

The smaller submersible pumps have performances ranging from 6-18 litres/minute (at 1 metre head), all have rigid polypropylene/polyethylene screens to prevent ingress of solids, one model can also be used as a 'surface pump' (used non-submerged) when fitted as an 'in-line' closed water circuit installation. Standard manual versions can be upgraded to automatic operation by means of optional diaphragm- and float-switches. Water can be removed down to a depth of 0.3cm with even some of the larger sump-type models — very useful when draining out a pond from above.

Pumps are available in various voltage modes 110-120, 220-240 for example, different voltage frequencies (50 or 60 hertz) can also be accommodated but care should be taken to see that models are used of the correct voltage setting and frequency at all times.

Attention must be drawn to the Company's other products which include **Water Landscaping Kits** (Waterfall and Fountain Kits) complete with header pool-sized liner, water hoses and clamps, fountain heads, control valves, diverter 'T' pieces etc. The Fountain Ring Kits are even more interesting with 5 jet, 10 jet and 10 jet with 6 jet centre piece configurations, all with complete fittings. Note that all Waterfall/Fountain Kits exclude the pump, whose model selection is determined by individual needs.

As you can see, the water gardener is well catered for, but there are even more pumps available to pump a multitude of liquids — not just water. A colour brochure is available from:

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Nottingham NG2 1EB
Tel: 0602 863471 Fax: 0602 860538

Fish's Family Favourites

Some words, such as Hoover and Biro, have passed into common usage as meaning the devices themselves, rather than just being the name of their inventors, whilst on the other hand some names are synonymous with overall, longstanding quality appeal. Wardley's Fish Foods are a good example of this and we are pleased to bring news of their latest range, the formulation of which is dedicated to nutritional excellence, comes to you in moisture-proof, consumer friendly packaging.

The composition of **Pond Stix** (Floating Pond Stix food suitable for all pond fish) exceeds the minimum requirements of the National Research Council of the National Academy of Sciences in the USA. This food is available in 375gm packs.

Pond Flakes suitable for Goldfish and Koi in outside ponds, is enriched with small shrimps. Available in 170gm packs.

Pool Sinking Pellets are more suitable for bottom-dwelling species (tench etc) and its fast-sinking capability is obviously reflected in the container weight — 907gms!

Pond Ton another Floating Food Stix format is suitable for all pond fish and comes with a built-in colour enhancer, in 411 gm packs.

The all-round Goldfish food is **Goldfish Flakes** and comes in 10gm, 24.8gm and 53gm sizes.

In addition to the pond and coldwater foods described above, the indoor aquarium is not forgotten either, and there are excellent foods for freshwater and marine fishes made by Wardleys too.

Guppy Flakes comes in 10gm containers and have been made to an advanced formula.
Cichlid Ten (71gms) are medium-sized floating pellets, specially formulated for fish with healthy appetites.
Basic Flakes are, as the name suggests, suitable for all tropical freshwater fishes and come in 24.8gm

Total Tropical suitable for all tropical freshwater species, is described as the Ultimate Flake Food (25gms).
Total Marine is a flake food for all marine fishes (24.8gms).
Wardley Foods are distributed in the UK by **Cogex Accessories Ltd.**, Bury Farm, Peshor Road, Chesham, Bucks HP5 2JU (Tel. 01494 786759 Fax 01494 79167)

CLUB NEWS

Bristol Tropical Fish Club

Chairman: Mr. A.J. Sparland, **Secretary:** Mr. A.P. Hatcher, 183 Earlstone Crescent, Coxbury Heath, Nr Bristol Tels 0272 324583. **32nd Open Show Sat. 25th Sept.** FBAS Trophy Class 'D'. All Saints Church Hall, Grove Road, Fishponds, Bristol. Fish Auction at 1.30pm. Fish Exhibition 3.00pm, subject to judging. Club meets 3rd Thursday of each month at The Post & Press Social Club, 72-73 Old Market Street, Bristol. Further details from the Secretary.

Erith & District A.S.

Change of address of meeting place: St. Augustine's Church Hall, Slade Green Road, Slade Green, Kent **1st & 3rd Tuesday of every month at 8.00pm** Secretary: Mr. C. Cooper. Tel: 0322 449257

Orley Aquarist Society — Open Show 19th September

Prince Henry's Grammar School, Orley. Further details phone Simon Metcalf (Show Sec.) Tel: 0943 464632.

Stafford Aquatic Society

Meeting Place: The GEC Sports & Athletic Club, Stychfields, Salford, Tels. Oct 12th Lecture by Anton B. Cass. **Tues Nov 9th**, David Sands Aquarist Advisory Service will be giving a talk on his recent Brazil trip. Meetings start at 7.45pm. A small charge will be made to cover some of the costs. Larry Lainton (Sec.) Tel: 0785 44404.

Yorkshire Cichlid Group

Meetings are held at St. Anne's Church Hall, Wrenthorpe, Wakefield, Yorkshire at 8pm on the 2nd Friday of the month. The following events may be of interest to readers: **Sept 10th** meeting talk by Mr Anton Cass (Prop. of 'AQUAFLIGHT'). Aspect of Cichlids. Auction on **Sunday 26th Sept** at 1330, **October 8th** Lecture by Tim Vincent of Rolfe C. Hagen. A warm welcome is extended to anyone wishing to attend. For further information contact: Phil Lowe (Chairman) 0302 880512; Phil Gardener (Secretary) 0532 600482; Graham Ash (Booking in Secretary) 0924 371488

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With its ergonomic design, BioLife provides unique 5-stage mechanical and biological purification and an advanced heater and water pump integrated into one compact, compact, internally mounted unit. Make no mistake, when the next black exercise is a virtual powerhouse of filtration activity that puts other systems into the history books.

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Here's how BioLife performs, stage by stage:

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MECHANICAL FILTRATION

BioLife takes out all solid wastes without need of sponges. A screen to large particles is followed by a fine mesh to remove visible solids. Heavy particles are trapped in the Dual Density pre-filter of the cartridge. Liquid wastes such as protein, medication and dyes are also removed by the pre-filter and carbon filter pad as fine organic contaminants are broken down.

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Because BioLife's unique 'dry' chamber is the exception, it keeps and supports high dissolved oxygen levels, as well as stripping excess carbon dioxide from the passing water.

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Letters TO THE EDITOR

Dear Sir,

I read with some sympathy (and some small experience) of the trials and tribulations of 'Uncle Mike', the speaker who received no little lack of manners or courtesies during his recent lecture tour. Could it have been that, because he was not an accredited speaker on the Federation's comprehensive list, that he received such shoddy treatment? Speakers on the list have an additional recourse open to them in these, hopefully, isolated cases of mistreatment: they can inform in confidence, of the culprit Society to the Federation's Judges & Standards Committee who will investigate the matter further and take necessary action if needed. By keeping the identity of the Society secret he may unconsciously be laying other speakers open to this kind of abuse, whereas by naming names the rest of us can be forewarned! I notice from the J & S List of Speakers that Mike's fellow member of Iford, Dennis Seaman is featured, maybe they could compare hospitality notes and see who's getting the better deal!

A contented and 'authorized' Speaker (name withheld, just in case Societies decide to strike back!)

Dear Sir,

The article Yorkshire FISH FAYRE (Fishworld Volume B, No. 1 Page 30) was of particular interest to me, having spent five days in the company of the very hospitable host organisers. The article (by Anon and On) has, in my opinion, been written to create comment, if it hasn't, I wish to make some anyway!

Your contributor appears to decri 'boxes', perhaps Anon and On

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belongs to a rather wealthy Society — wealthy in numbers, wealthy in craftsmen/craftpersons, wealthy in time.

Festival organisers are forever crying out for support to enhance their event and Societies to fill the floor space. By filling the floor space they create an atmosphere of things to look at and things to do.

There are many small Societies who do not have the manpower/personpower or ability to create imposing set pieces for every Festival. Let us not forget, the FISH are the most important part of the Festival, — were it not for the FISH, 60% of us would not be there.

By all means, have the imposing and impressive Tableaux that are not 'boxes' but let us not decri the fact that the 'boxes' are there.

At almost every Festival attended, one will find more prize-winning FISH in the 'boxes' than in the superbly built Tableaux.

The statement, by Anon and On, that 'boxes' are simply there as a means of showing the fish, is a view taken by many Festival Committees, a view which in my opinion is wrong. Festivals are for fishkeepers and their fish. If a Society has the technical know-how and the facilities, yes encouragement via cash incentives by all means. By the same token, however, encourage the smaller Societies, let them put their 'boxes' on display without the stigma 'it's only a box, it shouldn't be here', let us not forget that 'boxes' are usually the work of one enthusiast who wants to participate and is that not what it's all about?

Your correspondent also refers to the 'also-rans'; does Anon and On not consider the possibility that on the day an 'also-ran' was so placed it was not showing at its best and that came another Festival it could achieve a premier award? Another way of looking at it, the 'also-ran' took 2nd or 3rd best from a Show that had 500 plus entries, whereas some of the

Letters to the Editor

'Champions' were from the Shows where the entry was maybe under 200. Personally, I feel that this is a step in the right direction.

I do agree, however, that the idea of hiding the **Champion of Champions** (or equivalent) in a corner is wrong. Pride of place should be given to this part of the Festival. When I attended Doncaster last year, and eventually found the 'C. of C.' corner, I was surprised — to return again this year and find it was once again hidden was a great disappointment, can I ask the organisers WHY?

Apart from my gripe in the previous paragraph, I found myself made very welcome and, despite my taking ill whilst there, thoroughly enjoyed my stay in Doncaster.

John Cowan, Salway A.S.
(Editor's note: Fishworld acknowledges receipt of a further response from Marie Harrop of Yorkshire Festival Committee. This arrived too late for inclusion in this issue.)

continued

Dear Sir

I am writing on behalf of South Park Aquatic (Study) Society expressing our thanks for inviting S.P.A.S.S. to stage its Open show at the recently held Fishworld '93. The keepsake 25th Year Anniversary trophies that you arranged for us were very well received and the winners of these were very pleased with them.

The idea, layout and format of FISHWORLD '93 was very impressive, although we had a few snags of our own, we were glad to be part of the Festival. Our Judges also asked me to express their thanks for the hospitality shown towards them. I know that they enjoyed the day, as all of them said so before they left.

Once again, Joe, thank you on behalf of all members of our Society. Eric Franklin, Show Secretary, SPASS

(NB The above letter was sent to the Chairman of the FBAS and it is reproduced here with his permission.)

OPEN SHOWS & EXHIBITIONS 1993

DATE	SOCIETY	C/TROPHY	DATE	SOCIETY	C/TROPHY
9.9.93	SALISBURY A.S.	B (A)	2.10.93	G.S.G.B.	N.G.S.G.B.
9.9.93	GLYNETHES A.S.	FSAS	2/3.10.93	N.E.F.T. (NEFAS)	Festival
5.9.93	DARLINGTON A.S.	Cb (B)	3.10.93	HALIFAX A.S.	FNAS
11.9.93	BRISTOL A.S.	N.G.S.G.B.	3.10.93	SOUTH INCH A.S.	U.S.A.
11.9.93	HOUNSLOW A.S.	D (B)	3.10.93	WYKE S.S.	YAAS
11/12.9.93	S.A.F. (FSAS)	Festival	9.10.93	N.G.P.S.	G.S.B.G.
11.9.93	OTLEY A.S.	YAAS	9.10.93	K.A.A.S. Convention	
12.9.93	BRAY A.S.	I.F.A.S.	10.10.93	DONCASTER A.S.	YAAS
12.9.93	FAIR CITY A.S.	USA	10.10.93	T.F.A. Convention	
12.9.93	LINCOLN A.S.	YAAS	17.10.93	LEEDS A.S.	YAAS
12.9.93	N'WEST CATFISH A.S.	F.N.A.S.	17.10.93	SOLWAY A.S.	FSAS
12.9.93	SALISBURY A.S.	B (A)	17.10.93	WEST CORNWALL A.S.	FBAS
18.9.93	PLYMOUTH A.S.	FBAS	22-24.10.93	STRATHCLYDE	Festival
19.9.93	MID-SUSSEX A.S.	Dc (C)	24.10.93	FAIR CITY A.S.	USA
25.9.93	BRISTOL T.F.C.	D (B)	30/31.10.93	S.A.F. (FNAS)	Festival
25.9.93	EAST LONDON P.S.	N.O.T. (C)			
26.9.93	CRAMLINGTON A.S.	S (C)	5/7.11.93	WESTON WEEKEND	Festival
26.9.93	DARWEN (A.S.)	FNAS	14.11.93	BRADFORD A.S.	YAAS

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Fishworld '93 or Fish with Intent!

Everyone appears to love a Circus, and there's nothing quite like it when the Big Top comes to Town. But hang on a minute, we're not talking about the conventional 'under canvas' show here — *it's all about fish!*

When it was first mooted that there should be a Show in London, the first thing to get sorted was the venue. Fortunately the opportunity arose to hold an event not only within a well-established aquatics centre (in this case Brit Koi) but also within a well-known (and already very popular) location — Syon Park at Brentford, to this day we shall never be absolutely sure the venue wasn't really chosen for its proximity to our Chairman's home, only a few hundred yards away! But what's this about under canvas, you may be asking!



President Bob Eison on the lookout

Obviously, to fit all those Traders we wanted to come into Brit Koi's existing buildings wasn't possible, so it was decided to have an 'al-fresco' event,



Fox, Cottle, Mike Sandford & Dave Allison send Joe Matherell off on an urgent mission Find the President!

But with a covering safety factory built in in case of rain. To this end, large canvas canopies were erected around the perimeter of the site, with extra roofing extending over and well in

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front of the space taken by the exhibits themselves. This meant that no matter what happened weatherwise the Show could still go on unabated.

Unabated the Show itself went but, unfortunately on the first day the weather (and in consequence the number of visitors) was definitely bated.



President found in company with Hagen's Tim Vincent (left) and FBAS General Secretary Adrian Dempsey.

Unabashed, under the dry conditions within, around the Eric Davis Pond entries were mounting up on the showbenches for South Park A.S. Open Coldwater Show and the Judges were soon at work outside, but still under cover, a separate Koi Class was staged in their distinctive bright blue 'vats'. The trade stands were varied in their interests, interspersed with Societies' displays. Following the prize-giving for the S.P.A.S.S. Show (details of main winners below), everyone seemed to be glad when it was time for the barbecue to be set alight — at least there would be somewhere to get slightly warmer, but even this had its own slight technical hitch, having to be brought indoors due to a sudden (but not unexpected) downpour). Happily, the sky cleared and the evening turned into a pleasant social event, centred around the FBAS host tent in which a most elaborate spread had been laid, together with matching amounts of liquid refreshment.

The following morning brought much better weather, and no one seemed to mind battling their way into the Park through the traffic of

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Fishworld '93

continued

departing Classic cars on their way to Brighton. The sun shone and the fountain display in the centre of the grounds set off Fishworld '93 to perfection. Naturally enough, many more people came in to see the Show and spirits rose accordingly. We were delighted to see many old faces again, among them Mr van Dam from Holland and some new ones, especially the delegation from Spain. The consensus was that here was a Show with a fresh outlook and atmosphere; despite the uninspiring

first day, most thought it had potential and sufficient attractiveness for a follow-up next year.

The Federation would take this opportunity to thank all those who supported the event by exhibiting or merely visiting. We are especially grateful to Tony Purdy without whose hospitality, and readiness, in providing a suitable site at Brit Koi, the Show would not have been possible.



SPASS Results

Best in Show	Apple-eye	S. Seymour
2nd Best in Show	Roi Shubun	D. Herman (SPASS)
3rd Best in Show	Rudi	S. Bennett
Best Twinstail	Apple-eye	S. Seymour
Best Singletail	London Shubun	N. Kimberland
Highest Painted Plant	Duckweed	Mary Franklin (SPASS)
Highest Planted		Mary Franklin (SPASS)
SPASS Member		A.C. Barnes
Singletail Breeders		
Twinstail Breeders		W.H. Rossiter
with Dorsal		

Twinstail Breeders	without Dorsal	D. Seymour
Best Marine Fish	Rudi	S. Bennett
Best Centree Childe	Roi Pumpkin	E. Franklin (SPASS)
Best KOI over 8"		E. Franklin (SPASS)
Best KOI under 8"		G. Herman (SPASS)
Amphibians	Puddle Heart	Mary Franklin (SPASS)
	American Bullfrog	Nary Franklin (SPASS)

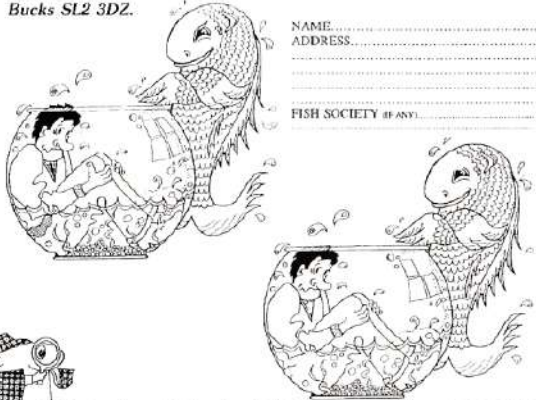
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WIN a Weekend for Two at The Supreme Festival of Fishkeeping!!!

Here's a fabulous prize to be won for the winners of our **WESTON COMPETITION** — twin-bedded chalet accommodation with two 'Weekender' tickets for this year's **SUPREME FESTIVAL OF FISHKEEPING**.

As if this prize in itself isn't enough (worth well over £100), the extra-special attraction will be the opportunity to hear Dr Herbert Axelrod, of T.F.H., who is to be the Guest Speaker throughout the weekend.

All you have to do is study the two drawings shown and circle as many differences between them as you can find on the second panel. Detach this completed panel, fill in your name, address and Society (if any) and send to:
FISHWORLD COMPETITION, 10 Rosken Grove, Farnham Royal, Bucks SL2 3DZ.



NAME.....
ADDRESS.....

FISH SOCIETY (if any).....



Closing date is **Saturday 16th October** and the winner will be notified by post as soon as possible following the closing date.

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Supreme Festival of Fishkeeping

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Supreme Championship Final

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Long Grove Wood Farm 234 Chattridge Lane
Chesham Bucks HP5 2SG**

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enriched floating food stick for all pond fish. Light in weight...heavy in nutrition...stabilized Vitamin C...just a few of the benefits of the new Wardley Pond Stix.

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I Need A Bigger TANK!

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

At one stage I had about 8 plec in the tank that I had collected after they had outgrown other people's tanks, but I recently sold these to a chap up in Doncaster. I intend on thinning the tank down further and would be interested to hear from anybody interested in Pacu; Pangasius or nigers. I also have a pair of Shark Cats and a Blue eyed plec that are lodging in George's tank at the moment.

The cats now require quite a considerable amount of food and every month they get through quite a shopping list, which includes:

2.3 lettuce	(pacu,plec)
1lb peanuts	(pacu)
1 tomato,cucumber	(pacu,plec)
Banana,Oranges,grapes	(pacu)
1 kilo JMC Catfish pellets	
	(niger, pacu, pangasius)
2.3 kilo Sinking wheatgerm pellets	
	(niger, pacu, pangasius)
2 kilo Mixed pellets	(niger, pacu, red tail)
1lb cockles	
1red tail, shavelnose, marmoratus, pangasius	
1lb muselly	(do.)
1lb whitebait	(do.)
1lb sprats	(do.)
2.3 trout	(do.)
1lb coley or dogfish*	(do.)
1lb whole prawns or shrimps	(do.)
Mackerel Heads (whole)	(do.)

*Dog fish caught in Saundersfoot, South Wales during holiday and are a regular part of their diet.

Although in the main the predatory cats eat the fish based foods, the Red Tail eagerly eats the catfish pellets and will take the floating pellets from the surface in great gulps. I also prepare pellet cakes or dumplings as my wife calls them. I grind up about a pound of mixed pellets in the food processor and then add a few ounces of Refresh and vitamin drops. With a little water

these are mixed and moulded into little dumplings the size of a golf ball and the fish love them, even the Marmoratus will take these whole. I used to add the Refresh directly to the water, but it used to turn it into a mud bath and some was inevitably lost during water changes. Refresh is a Montmorillonite clay powder that replenishes vitamins and minerals taken out of water during treatment by the water authorities. I also use A.B.A. bacterial filter aid as I believe it performs two important functions, firstly by seeding and bolstering the bacterial colonies in the filter and secondly, as an aid to the digestive systems of these large cats. I often see and hear of large cats that have lost or appear to have a very small appetite and I have found a good dose of A.B.A. a very good tonic for inducing an appetite in listless fish.

When considering the dietary requirements of these Cats it must be borne in mind that a suitable, fresh and varied diet must be offered as I have often thought that a monotonous diet may often be responsible for poor growth and development. Also, with a community system some will prefer a good, solid mouthful, others like to sift about and search out small morsels relentlessly. I find my Shavelnose Cats seem to prefer a solid piece of fish, such as a small trout whole or a large fresh mackerel head (followed by two more). The Red tail likes heads but not plaice heads, although the pangasius will take them. The Red tail will also take plenty of prawns/shrimps and loves sifting the sand alongside the nigers for the sinking wheatgerm pellets. I like to use wheatgerm pellets in addition to the normal staple pellets. In fact, I tend to buy several different brands of pellet and stick foods and mix them all.

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together again to try to offer a wide and varied diet. I feed pellets at about 7am and 5pm daily on a regular basis, but I would be lying if I said I didn't feed most times I visit the tank. The predatory Cats are fed weekly with the occasional prawn treat when we have visitors. They will often tell me when they are hungry as when I open the tank lid the two Shoeloses will lift their heads and hover just a couple of inches below the surface in anticipation of a feed. Also, I carry the food to the tank in a stainless steel bowl and when I put this on the side of the tank they have learnt this means food and up they come, often with the Mar-moratus and Red Tail hovering round their tails below. I purchased the second Shoelose from Fishworld in London and George accompanied me on the trip to collect it. Carrying the fish in a cocoon of plastic bags held firm in a polystyrene box covered over with a blanket on the back seat of the car, we made our way home up the motorway. The fish remained very calm on the journey, so much so that I was very concerned when I pulled onto my drive and on checking the bag there appeared to be no movement and I quickly placed the bag into the tank to prepare for release. On opening the bag I anxiously put my hand in to turn the fish so that I could see its eyes. Well, as soon as I saw those eyes I knew all was well and gradually introduced some tank water into the bag to start the acclimatisation process. He was in what appeared to be a state of total relaxation and I can only assume the dark, warm box with the movement of the car had in some way subdued the big Cat. At about 3³⁰ he glided gracefully into the tank and even today almost 36 months later, I can still remember looking into his eyes and feeling that sense of excitement and relief on that day.

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Lesson number three, big fish need plenty of filtration. Not only do the filters have to cope with the normal waste of the fish, but catfish due to the dietary habits — large amounts of very high protein — give out huge bursts of ammonia following a feed and due to the fact that feeding and waste levels are not constant, thought must be made as to how to maintain water quality under these conditions. This involves carefully timed water changes, use of chemical filtration and accurate assessment of water quality testing.

Now, so far you may be thinking everything has gone smoothly and problems have been far between. Well, when you run a system like this you are bound to come across problems, either of your own making or of others. I remember the time I went into the shed at 7.30am before going to work to find the filters steaming, central heating pump slurping strenuously and only a foot of water in the tank! I thought there was a leak, but there was not a drop of water on the floor. Where the hell had 600 gallons of water gone? After a thorough and panicky look around I found the answer. The evening before I had completed a water change and inadvertently left the end of the hose in the tank whilst disconnecting the hose from the outside tap and dropping it to the floor. Overnight, the water had siphoned out and the only reason the damage was not worse was that it was siphoning back through the water purifier and this slowed down the rate of water loss. I felt helpless as the fish wallowed around in one foot of cold and stagnant water. The Pacus' backs were out of the water and the Shoeloses were looking really distressed. I turned round and rang my workplace and wangled a few hours off to deal with the crisis (one of the benefits of having a phone in my shed).

Fortunately, by adding extra heaters and lowering the intake to the pump I was soon able to restore circulation and it was then a matter of slowly adding more water and keeping the temperature up. Much work and support was needed over the next few weeks as the filter had been exposed to very high temp. during the time there was no circulation through them. Fortunately, none of the fish seems to have suffered any long term effects and all recovered. Since this incident I have changed the method of water changing and have moved the heaters into the larger 200 gallon filter so the risk of boil-up is reduced.

Most of the other problems are allied to the electricity board's obsession with power cuts in this area. Only last Christmas morning I was awoken at 1.30am by my power cut alarm which signalled a power cut. Christmas morning to top it all I spent in my shed with my cat, with my battery air-pump buzzing away. After ringing the Electricity Board they assured me the fault would be rectified by 6.30am — what a night. The power did return at about 6.00am but with two excited young children there was no option to catch up on any lost sleep.

CONTINUED IN NEXT ISSUE



Judges Corner

by RDE, Chairman Judges & Standards Committee

Unfortunately, due to a change of job Peter Cottle has been forced to relinquish his position as the Chairman of the J & S. Peter put a lot of his spare time into making a success of the job. We not only owe him our thanks but wish him every success in his new job in Scotland.

As a result of soundings and a straw poll of judges, the Judges & Standards Committee proposes to introduce an alteration to the Show Rules at the September General Assembly, to enable it to be voted on at this year's December A.G.M. This will prohibit containers with black backs from being used on the show bench.

For several years it has been possible to exhibit fish and plants in containers with black backs. Many judges have expressed dissatisfaction with this as it is often difficult to assess the finnage and in extreme cases the general outline of fishes in black backed containers. Added to this, some show halls have insufficient artificial or natural lighting and the situation has become intolerable. Judges must be able to view an exhibit to arrive at an accurate assessment.

However, containers which form part of a tableau will still be able to be masked black on the back. There are two reasons for this. (1) So that tableau designers can prevent the internal workings of the tableau from being seen; (2) The containers in tableaux are illuminated.

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FBAS News

PEOPLE

Retirement, be it enforced or voluntary, early or on time, usually brings a change in lifestyle especially in the principle character involved and to the immediate family. However, one retirement that occurred in recent months means that member Societies of the Federation of British Aquatic Societies will be deprived, at least for some foreseeable time, of the services of one of its Council members.



Pete Cottle receives his farewell gift from FBAS Chairman Joe Mellersell on his retirement as Chairman, Judges and Standards Committee.

Pete Cottle, of Strood A.S., has served on the Federation's Council for some 20 years, latterly as Chairman of its Judges & Standards Committee. Recently recovered from a brief hospitalisation, he has moved north of the Border to a new job, but fully intends to keep up connections with his hobby, and so Societies in the northern parts of England and, of course in Scotland, will soon have another aquatic expert in their midst. Foreign travel is not uncommon to Pete, who has one of those jobs that kept him 'on the road' as it were, through choice he travelled fishily too — regular visits to the aquatic suppliers in Holland for example — and when on holiday you can bet all aquatic establishments of one kind or another were keenly sought out and closely inspected (his description of the Tennessee Aquarium at Chattanooga appeared in the September 1992 issue of Fishworld). Fishkeeping people were also his target, and he was particularly active in creating links between the

Federation and hobbyists in Ireland, both north and south. Despite demands from his work Pete also found time for the Federation, and always found time for his fish, he was, as most people know very interested in Characins and has bred many species. At his farewell Assembly he was presented with a Diploma and a copy of Dr. Axelrod's Lexicon on ... Cichlids! Are some people trying to tell him something?

A regular contributor to Fishworld, Pete appropriately winds up his career with a piece on the Sword-tail Characin in this issue, but he's sure to be sending missives from up north as time progresses and allows!

The Federation wishes him and his wife Sheila well in their new venture and thanks him most sincerely for all his work on its behalf over the years.



Pete Cottle, retiring J & S Chairman, poses with (l-r) Ken Pyle, C.A.T. Brown (FBAS Vice-President), Bob Eason (President, FBAS) and Joe Mellersell (Chairman, FBAS) after receiving his farewell gift and Diploma.

PUBLICATIONS

Under Pete's guidance, the Judges & Standards Committee have recently released a new reference publication in its National Show Fish Guides and Technical Information series — Booklet Number 22. This contains details on 25 species popular freshwater tropical species, including Barbis, Hatchetfishes, Corydoras, Killies, Gobies, Archerfish, Scats, Synodonts amongst others. The price is only £1.50 and it is available from

FBAS News

FBAS Show Stands, or direct Mail Order, please add 25% to cover postage from: FBAS Publications, 14 Upper Dane Road, Margate, Kent CT9 2LX.

By this time, all of the Federation's 126 member Societies will have received both a complimentary copy of the above publication and the latest issue of FISHWORLD magazine, also on direct subscription to hobbyists everywhere (£5.00 per 4 issues post free write to: FISHWORLD Subscriptions, 194 Greenhill Road, Greenhill, Heme Bay, Kent CT9 7RS).

Events

Time is also running out for you to book for THE aquatic event of the year — T.F.H.'s Dr Herbert Axelrod's appearance at the Supreme Festival of Fishkeeping at Weston-super-Mare (see Competition elsewhere in this issue). Tickets are going fast (£59.00 per person per weekend, concessions for youngsters) so to avoid disappointment send for Brochure and Booking details from: Colin Richards, Beechwood Cottage, Long Grove Wood Farm, 234 Chartridge Lane, Chesham, Bucks HP5 2SG. (Tel: 0494 773094)

Ohm...Sweet...Ohm

by Jack Stillwell, Portsmouth A.S.

Regularly every quarter, the postman delivers amongst other things, an invoice for the electricity we have used and, just as regularly, the following conversation takes place

"The Electricity Bill has arrived ... Yes, dear?
1560 Units — £96.96!!! I certainly haven't used all that. No, dear
Either that meter is wrong, or its those ***** fish! Yes, dear

All of which leads to — just how much does it cost to keep a tank at 75°F? The cost, of course, will vary with the time of year, the size of the tank, the situation, the temperature differences between that of the room and the final, desired heat of the water etc., but here's how an approximation can be made.

1. Add together the wattages of the heater(s), lamp(s), airpump and power filter (if fitted).
2. Multiply by the time (in hours) that the devices are on in seven days.
3. Divide by 1,000.
4. Multiply by 7.5 (the cost per unit — 1 unit = 1,000 watts/hour) (cost per unit may vary from region to region)

This gives a cost per week in pence.

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Example 1

A tank is heated by means of a 75 watt heater and illuminated by a 60 watt lamp, these are on for 12 hours every day. Then the cost is calculated as follows:

Total wattage	135	= 75 + 60
Daily total of watt/hours	1620	= 135 x 12*
Weekly total	11340	= 1620 x 7
Total kilowatt/hours per week	11.34	= 11340/1,000
Cost per week	85p	= 11.34 x 7.5

*Note: Heaters are obviously not on all the time, i.e. 24 hours per day, being operated intermittently by the thermostat according to temperature variation demands, it has been estimated for the sake of these calculations to be operative for 12 hours per day. Even if the heater was on 24 hours a day, the cost would only rise to 132p per week. Again, larger tanks lose heat much more slowly than small tanks, so it is not correct to say that a 4ft tank uses twice as much heat than a 2ft one, once 'up' to temperature, it could well use less!

Example 2

A tank has a 150 watt heater, is illuminated by two 30 watt tubes, has a 30 watt power filter and 10 watt airpump, the lights and heater are on for 12 hours every day, the filter and airpump on all the time.

Then the cost is calculated as follows:

Daily total of watt/hours	3480	= (150 + 60) x 12) + (30 + 10) x 24)
		= (210 x 12) + (40 x 24)
		= 2520 + 960
Weekly total	24360	= 3480 x 7
Kilowatt/hours per week	24.36	= 24360/1,000
Cost per week	182p	= 24.36 x 7.5

Comments

1. You will never convince your wife that these calculations are correct. (Don't 'forget' to include that pump/fountain if you have an outside pond — she won't!)
2. If your wife mentions that there is also a standing charge each quarter, point out that you have to pay that anyway, whether you are keeping fish (or not), or whether she is washing her hair.
3. Costs will rise. The Chancellor is adding 8% VAT to fuel bills as from next year (1994), increasing to 17.5% the following year.
4. Heat conservation is the name of the game for tropicals, lag tanks if necessary and consider using space heating for multi-tank/fish-house set-ups. Lighting can be controlled by timers, change to lower-consumption fluorescent tubes instead of heat-producing current-drawing tungsten bulbs. Sunlight may be cheaper but is often unpredictable and uncontrollable; skylights (to let in sunlight) also let out heat unless double-glazed.

Has Jack Stillwell Found the Answer?

THE GOLD IS RUNNING OUT, BUT DIAMONDS COULD BE FOREVER!

Let FTSE and Wall St shares plummet and businessmen take a dive from their office windows, the headline has nothing to do with the world's mineral wealth at all. The critical situation is to be found within the gentler ranks of fishkeeping, notably with the FBAS Brooch Scheme.

For those unfamiliar with the Scheme, winners of First Place Award Cards at Federation-supported Open Shows accumulate points towards Bronze, Silver and Gold Brooches, trading in their lower value badges along the way and keeping the eventually-gained Gold Brooch — at which point they start off on the badge trail all over again.

As the Scheme has been in progress for some years now, inevitably some people have gained several Gold Badges with the result that 'Gold stocks' are beginning to fall. To relieve the situation (and to reclaim a number of Gold badges in the process for awarding to future winners), the Council could create a new top badge — say a Diamond Brooch.

In terms of value, a Diamond Brooch would be worth 10 Gold badges or, in current Show Card values, 750 First Places. This means a well-travelled and successful exhibitor could hold up to nine Gold Badges at

any one time but after a further 75 First Places ten Gold Badges would be traded in for a Diamond Brooch, which would then become the outright property of the winner — until, perhaps the 'Diamonds' start running out too!

In recognition of past 'Golds' won, a Certificate would be issued for each Gold won, so that winners would have some additional reminder of their achievements, on their way to the Diamond.

Full details of the current FBAS Brooch Scheme can be obtained from the FBAS Trophy/Brooch Officer or found in the current FBAS Constitution and the FBAS Yearbook. Under the Constitution, alterations to the Brooch Scheme are permissible without the mandatory year's delay applicable to Constitutional changes and could come into force quite quickly — discuss amongst yourselves and pass your comments to the Features Editor or to the General Assembly via your Society's Delegate.

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Have you Read?

The Most Complete Coloured Lexicon of Cichlids

by Dr Herbert Axelrod

It doesn't seem very long ago that the answer to "Where do Cichlids come from?" would have been a very definite "South America". Just how much things have changed is brought home very forcibly indeed by this latest publication from TFH. Apart from the brief introductory section, it is not until you reach page 565 that you come across descriptions of any fishes from the New World, and this out of a book of 786 pages of species descriptions! This apparent imbalance of species is due to the overwhelming number of species (and colour morphs within each species) from Africa, particularly from the Rift Valley Lakes.

Faced with the task that Dr Axelrod set himself, of collecting and photographing all known cichlids, most of us would have given up by now considering the explosion of discovery that has obviously taken place and still continues to do so. Naturally, not all species surrendered themselves conveniently to net, or camera lens, and in these cases John Quinn supplied excellent substitute artwork. Despite knowing just how hard certain fishkeeping bugs can bite, the author is still to be congratulated on staying the course and successfully realising his dream of over 40 years (sorry Herbert, but we're all getting older by the day). The book is a real tour-de-force and everyone involved in its production can be well satisfied with the result.

As hinted at previously the work is divided up into two main geographic areas — Africa and Asia, and the Americas. The first group is further sub-divided into the three main Lakes (Tanganyika, Malawi and Victoria), Southern and Eastern Africa, Western Africa, the Middle East and Asia, and the island of Madagascar, a further chapter — The Tilapiae — deals with

these species separately which, despite being African in origin have been introduced into many internationally-widespread areas other than their originating waters. The second part is divided between the Central Americas and South America.

The main use for this book will be for positive identification of species, rather than for cultivation information, but the introductory chapter should not be skipped over for it contains many interesting details about this fascinating fish. (Don't skip the last chapter either if you want to know why these fishes are called cichlids!)

It goes without saying that the illustrations are superb, they need to be to reveal some of the almost minute details between 'lookalike' sub-species. Built-in too, are location shots and maps which bring an even more intimate feel to really knowing about the species and its natural surroundings.

The culmination of the work must be the stunning Index — acknowledging the constant upheaval in matters taxonomic, Dr Axelrod grasped the nettle fearlessly and has included both old and currently new names of species, so that the reader can identify the fish no matter how he prefers to recognise it. For this alone, the author will be thanked by thousands, if not millions, of serious aquarists. Talking of names, it may come as a surprise (even a shock) that the use of common names is not prevalent in this book, some familiar names may pop up from time to time in a caption or in passing in the information text but not in the species headings for every entry. For those who may dismiss cichlids as an ugly bunch from Americas, with a few African species thrown in, then this book will certainly open your eyes to the truth — 40 years is a long time to wait but, on the resulting evidence, something's are well worth waiting for. Final advice — read the book, then come to Weston in November and tell the Great Man himself what you think of it he'll be there will you?



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by **Dr. David Ford**
Senior Consultant

Features Editor's foreword:

It is often difficult to put oneself in the position of a newcomer to the hobby, and it is just as easily forgotten how many exciting new ideas may come to their mind. This letter to David Ford contains just about everything you can think of — unless you know better!

Q. I took up fishkeeping around three months ago and have a 24" x 12" x 12" aquarium containing 2 Moors, 2 Nymphs, 1 Japanese Ryukin and 1 Calico Oranda. I wonder if you could answer some of my questions please?

How many inches of fish can my tank support? I have heard several different theories about this but I don't know which is right.

If I decided to change from coldwater to tropical could my fish survive? I saw some Moors in a heated tank recently.

Can you suggest any good tank mates for my fish (tropical tankmates) — I like Neon Tetras — would they be suitable? I like colourful fish rather than drab types.

If I had a mixture of two fish types (tropical and coldwater) what food could I give them?

Would my coldwater plants be suitable for a tropical tank?

S.B. of Dublin

A. Goldfish are very 'dirty' fish and their excreta contains ammonia which can be made less harmful to them by ensuring that it is diluted by large amounts of aquarium water. Remember that all fish have to swim in their own loo! You have

six fish in your aquarium, which is too many, and there will be an ammonia crisis eventually which will stress the fish; this stress will lead them to catching White Spot and Fungus much more easily and some, if not all, will die.

I recommend 1 goldfish per 12" length of aquarium for a simple tank; this can be increased to 2 Goldfish per 12" providing there is good, continuous biological filtration to remove the ammonia and an associated toxin called nitrite.

You can convert a coldwater aquarium to a tropical tank just by adding a heater/stat; coldwater plants will withstand the higher temperatures if the lighting is bright enough, but I do not recommend mixing coldwater and tropical fish. The reason is not that of temperature (coldwater fish can stand temperatures from freezing to 30°C) but of resistance to tropical diseases and parasites. Mixing species inevitably leads to the Goldfish contracting some disease or parasite and dying early instead of living for 20 years or more.

It is possible to mix temperate (coldwater) species in an unheated indoor aquarium with Goldfish, for example, North American, Australian and Chinese fishes.

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Miniature WATER GARDENS

by Harry Hooper

Container or sometimes referred to as 'pato gardening' has become extremely popular over the last few years and with the growing interest in water gardening miniature water features have become more fashionable with the smaller gardens. Various receptacles can be adapted for planting different forms of plants, from old chimney pots, half barrels, old butter sinks etc. to the purpose-made containers manufactured from either stoneware, terracotta or plastic. Whatever the choice, they can all become attractive when full of plants. A miniature water garden can be achieved quite easily as many of the containers used for growing annuals, bulbs, alpines etc., providing they hold water, are ideal for creating a mini water feature. Half barrels for example are perfect for growing the smaller varieties of waterlilies. Old York stone or even glazed butter sinks are excellent containers for planting a collection of pygmy waterlilies only requiring a depth of 6" to 8" of water to grow in. Although the waterlilies will be the most striking plants used in a miniature water garden, there are many varieties of dwarf marginal plants and other various aquatic plants that will accompany the lilies during the summer months, providing you choose a selection of plants that when established, will blend together naturally, giving the overall appearance of a tiny pond.

The favourite growing medium for water plants is ordinary garden soil or the special composts formulated for growing aquatic plants easily obtainable from water garden centres. Also, it is advisable when planting a selection of aquatic plants in small containers to add some slow release fertiliser to the compost, to ensure the plants have adequate nutrients during the growing period, this will also assist the plants to flourish to their best advantage.

Should you have a conservatory or warm greenhouse, you could consider growing tropical waterlilies. These cultivars offer something different for tub culture,

providing blooms of outstanding colour including blue. Normally, the flowers of tropical lilies are held well above the water surface. Some varieties of tropicals start to open their blooms from early evening and stay open through the night, this is ideal where the other varieties of lilies have closed their blooms for the day. Tropicals are fairly easy to grow providing the water temperature is not allowed to drop too much. A small aquarium heater would be sufficient to keep the water temperature in the container to a steady 70°.

When selecting suitable plants for small water features the water lily will undoubtedly be the plant that will be admired most of all, therefore it is important to choose a suitable variety for tub culture.

A Half Barrel size container — the best choice of lily would be one of the following varieties:

N. Odontocaulon Nivea (medium pure white blooms, plain green foliage); **N. Candida** (small white cup shape blooms, green foliage); **N. Leydelei Lilacea** (pink blooms foliage green, blotched with brown); **N. Pink Opal** (delicate coral pink flowers, green blotched foliage); **N. Eliaena** (small red flowers, green foliage); **N. Fraebelii** (deep red flowers, deep green foliage); **N. Paul Harriet** (orange-pink flowers, mottled foliage); **N. Aurorea** (flowers cream to orange, purple mottled leaves).

Containers - depth 9"-10" (old butter sinks etc.)

Choice - pygmaea, **N. Odontocaulon Minor** (small white blooms, soft green foliage); **N. Pygmaea Alba** (small white lily, dark green leaves); **N. Pygmaea Helvola** (tiny yellow flowers, olive green foliage blotched with purple/brown); **N. Johann Pring** (deep pink flowers, dark green foliage); **N. Graziella** (orange to red flowers, mid green leaves, blotched brown & purple).

A selection of dwarf marginal plants, suitable for miniature water gardens:-

Acaeus Gramineus Var. (dwarf striped rush); **Callia Alba** (white marsh margold); **Houttuynia Cordata** (white flowers, deep green foliage); **Houttuynia Cordata Var.** (variegated foliage); **Mimulus varieties** (monkey nut); **Myosotis Palustris** (water forget-me-not); **Sagittaria Flava Plena** (lance white flowers, green shaped leaves); **Sagittaria Flava** (lance white flowers, green shaped leaves); **Sagittaria** (small 'iris like' foliage yellow flowers); **Typha Minima** (miniature bull rush); **Equisetum Scirpoides** (dwarf horsetail rush); **Otilopogon Passalus** (very small, dark green plant, ideal for edging banks); **Lysimachia Nummularia** (money creeper); **Juncus Eruifolius** (compact dwarf rush producing attractive seed heads); **Veronica Beccabunga** (brook lily, tiny blue flowers, ideal for edging containers).

AQUARIUM WORDSEARCH by Adrian Dempsey, East Kent A.S.G.

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

ALGAE	FBAS	NEON TETRA
ARABANTIOS	FILTER	OSCAR
ANGEL	FISHWORLD	OSMOBIS
AQUARIUM	FLAG	PARADISEFISH
AKCRODI	FLUNES	PEACOCKFISH
BADIS BADIS	FLYING FOX	PIRANHA
BARBS	FRY	PLANT
BETTA	FUNGUS	PLATY
BLEND CAVE FISH	GIBBICES	PLECO
BLOODWORM	GOLOFISH	POUCHHEAD
CARDINAL TETRA	GRAVEL	RASBORA
CATFISH	GUPPY	RUBY BARR
CAUDAL	ICHTHYOLOGY	TYPETRACK EEL
CHARACIN	INFUSORIA	STARFIGHTING FISH
CICHLID	JACOBREIBERGI	STONE
CLOWN LOACH	KILLIFISH	SWORDTAIL
CONVIC	KHULI	TANK
CORYDORAS	LIGHTING	TETRA
DANIOLEBIAS	MOLLY	WHITESPOT
DICCUS	MYERSI	ZEBRA DANIO

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.

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