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*Magazine*®



**aquarian**

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I hope you will enjoy also the International flavour of this magazine, with articles from both New Zealand and the U.S.A.

Finally, don't forget to take advantage of the Dealer Discount Scheme. I look forward to receiving your "Fish" articles for the JUNE edition, please let me have them by the 2nd April. THANK YOU.

*Peter de Lange*

Material for the next issue of this magazine should be in by the 2nd April 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 Rosken Grove, Farnham Royal, Buckinghamshire SL2 3DZ.

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## From your Chairman

Welcome to another New Year of fishkeeping.

As the new season is about to start, I can assure you that everything is in place to support Societies wherever they are and whatever their needs.

You will see from this issue of FISHWORLD that there has been a change of emphasis in one Company's support for Societies; we have been aware for a long time that Show prizes generally go to a small number (but dedicated, all the same) of aquarists and we must appreciate that their efforts enable the rest of us to see all that is best, and newest, in the fishes we admire so much. By making their support for Societies more open-ended, more people in all levels in each Society can benefit by selecting their own Fishkeeping Personality of the Year, each Society will contribute a growing roll of honour of those whose efforts are really appreciated and, often as not, would otherwise have gone unrewarded.

Following their co-optation onto the Council last year, I am more than happy to see Bob Lemmon and Paul Corbet return as full-time Members now their Posts have become established. Both have already contributed valuable services to the Federation (see our much expanded Dealer Discount Scheme and slightly less of a log jam in Open Show dates); long may they continue to do so.

As you will know, the Federation has a new President: Bill Rundle, from Plymouth A.S. takes over from Bob Esson, of Riverside A.S. I have no doubt that Bill will bring his own brand of success to the Office, as much as Bob did during the period of his 'reign'. Fortunately, we shall not be losing Bob's services (Presidents are not allowed to fade away) for he has taken on the post of Secretary to the Judges & Standards Committee; I thank Bob most sincerely for his Presidency, at the time it was a new position in the Federation and he brought to it both dignity and authority.

This is the quietest time of the year, but plans are in hand continually for activities and opportunities later in the year; once these begin to occur we will be too busy to notice much else but bear in mind we couldn't do it at all without your support and that is something we do look forward to.

Joe Nethersell, Chairman F.B.A.S.

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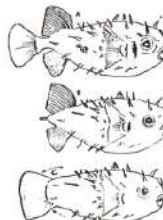
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## Nature is Marvellous

by kind permission of Ian L. Mills of the Federation of New Zealand Aquatic Societies (Inc.)

Some of the things I have seen in 35 years associated with the Hawkes Bay Aquarium never cease to amaze me.

Summer 1989 three Porcupine fish (*Allopygus aculeiferus*) were put into the 360,000 litre Oceanarium; within a day or two one had its tail bitten off. It was interesting to see just how this round, bladder-shaped fish adapted without a rudder. The wound healed and the fish managed remarkably well with its large dorsal and anal fin, and survived six months.



What followed 2 years later indicates how adaptable this fish is. Two new Porcupine fish were caught in 1990 but one had lost its tail some years before capture. The line drawings, done from life, illustrate what happened to this wild caught specimen. Both the dorsal and ventral fin had migrated to the back and fused together to form a replacement tail. This fish survived in captivity for 18 months, the other fish caught the summer of 1989 is still with us and a prime attraction of the Oceanarium.

**Pangasius Cat (*pangasius sutchi*)**  
Siam cat or Ghost shark. In 1979 the Aquarium received three small, dusky black fish each about 14cm long and for



the next 6 years we watched them grow to 75-80cm, without knowing their name or country of origin.

As better reference books came on the market we sorted out the name (*Pangasius sutchi*) and country (South East Asia). This is a very skittish and boisterous fish and needs a tank larger than most hobbyists are likely to have, its sheer ugliness and size make it an ideal exhibit for public display. It is silky black in colour and has three nasty thorns or spines (somewhat like the Brown Bullhead/Hunty Catfish of the Waikato River system) which can inflict a bad wound if mishandled.

18 months ago one of these large fish developed a cancerous growth on its lower lip, this grew to a 25mm round, unsightly mass and the time came to kill or cure this fish; as the public were becoming concerned, the curator Rob Yarrall made the decision to amputate this growth, we had nothing to lose by this time, either we succeeded or the fish died. Obviously Rob succeeded, why else would I write this episode.



**Piranha (*Serrasalmus nattereri*)**  
It is amazing what damage a fish can suffer and still live. The worst case I have seen amongst the Piranhas at the Hawkes Bay Aquarium was horrendous, once again the illustration is drawn from life (by myself in my capacity as Staff Artist). It makes you wonder where a fish keeps its brain. This horrendous gap filled first with a mass of fungus which after about three weeks cleared leaving this huge hole. This fish survived for all of

## Nature is marvellous

(continued)

five months and as the cavity healed the gap seemed to enlarge.

My most upsetting experience at the Aquarium was to watch a 35cm Fire Eel chase and swallow a 15cm Peacock Eel (while I was drawing their pictures for a label above the tank) and in the Oceanarium witness a large Shark shorten a 5' 10" thick, Conger Eel down to 4'. In this latter instance a diver who was feeding at the time removed the remains for humane dispatch.



Those of you who keep marine fish will have met the following situation with members of the **Wrasse** family.

Most Wrasse have the disquieting habit of changing sex if the need arises. In nature, a group of Wrasse may have only one dominant male, the entire balance will be all female, if and when the need arises or perhaps with extreme maturity, a female will change sex.

We have witnessed this with some Fiji tropical marines only occasionally but with the commonest New Zealand Wrasse, the humble **Spotty** (*Pseudolabrus celidotus*) it happens all the time.

On our rocky shores and around wharf piles 99 out of a 100 Spotties caught one female; once in captivity almost all turn into males. It is rare to see a male at sea, it is equally rare to grow up a female in confinement, maybe this is a mitigating factor.

There is a distinct sexual pattern that differentiates male from female, I have accentuated this pattern in the illustration to make this more apparent.

Only young newly introduced Spotties in the Aquarium display female characteristics all mature captive Spotties turn into males, yet in the wild most are female.

Most of the Spotties in our Oceanarium change to the paler coloured male; a

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little larger in size with a light band about the middle. Writing of the 10 currently known New Zealand wrasses, Wade Daake states, "In every case the basic pattern is the same, labrins all start life as females. A juvenile male has never been found. At a certain stage of development adult females undergo sex reversal, apparently quite rapid in most species. This is true of the humble Spotty. Here is a list of Daak's 10 recognised New Zealand Wrasses. He still calls some of them 'Parrotfish', a term that was dropped in the 1980s in favour of Wrasses. Correctly, New Zealand has only two Parrotfish, neither of which is on this list.

- Spotty - *Pseudolabrus celidotus*
- Girdled wrasse - *P. cinctus*
- Banded wrasse - *P. fucicola*
- Green wrasse - *P. inscriptus*
- Orange wrasse - *P. luculentus*
- Scarlet wrasse - *P. miles*
- Sandagers wrasse - *Coris sandageri*
- Combfish - *C. picta*
- Crimson cleanerfish - *Halichoeres sp.*
- Rainbow-fish - *Halichoeres sp.*
- Red Figfish - *Verreux oxycephalus*
- Foxfish - *Lepidopsis sp.*
- Bluehead wrasse - *Thalassoma sp.*
- Yellow wrasse - *Anampses elegans*

A fish not on this list that to me has all the characteristics of a wrasse is the **Butterfish** or Greenbone (*Coridodax pilulus*) which with the true Parrotfish form separate families.

**Convict Blennie** (*Pholidichthys leuconota*) Over the years in large shipments of fish the odd stranger comes in, more often than not by mistake as a juvenile, disguised or confused amongst a thousand other fish. Such fishes are the Aquarium's Blemies bought from a dealer in good faith as Neon Gobies. These fish were 8cm long when delivered February 1991, today in August 1993 they are all of 36cm ... and growing. As we watched them grow the staff at the Aquarium took bets on just what they were.

## Nature is Marvellous

(continued)

Once again as better books became available, the problem was solved.

**Convict Blennie** (*Pholidichthys leuconota*) Size 30cm

Very rarely seen in captivity. Is very shy and retreats backwards into the nearest hiding place. We received three of these Eel like fish by mistake in February 1991, at this stage they were just 8cm long.

**Walrus Cofish** (*Syndotus resupinatus* yet to be confirmed)

Any of you experts like to verify this one? This fish is relatively common in New Zealand now but has the dubious honour of being the dearest freshwater tropical fish the Napier Aquarium has bought (five at \$50 each). Apparently it is an edible fish of the Nile waterway and not at all rare in its

home waters. It grows to 35cm and its huge barbels and propensity to swim upside down make it a worthwhile, though pricey exhibit.

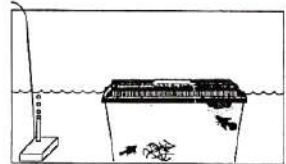
We have our share of mistakes and accidents, like all aquarists, wrong water, too hot, too cold, incompatible species and outright incompetence, but along the way staff at the Napier Aquarium have experienced most of the tribulations the rest of you have.

Good Fishkeeping to you all.

Remember, we don't pay for your big, oversized fish but we have tanks large enough to accommodate anything you may find outgrowing your facilities.

## A Breeding Trap for *Betta smaragdina*

by Cyndy Gilbert



After completely falling in love with the **Emerald Bettas** that I received from Wendy (Katz) I bought another pair that she had for auction. In my hurried life I placed the pair into a 1/2 gallon plastic Pet habitat, by Fritz, and set it into a 10 gallon heated aquarium filled with water just high enough for the grated top to be out of the water so the fish could breathe. To my surprise, this turned out to be a perfect breeding set up. Why?

I had moss and a lot of other surface plants in this Pet Habitat. The male made his beautiful bubble nest with this and the pair spawned. The male guarded his nest and fry from the female but when they matured to a free swimming stage they were able to swim out of the grated top and into the protection of the outer water in the ten gallon tank.

I allowed them to spawn three times this way before removing their little tank and placing it into another ten gallon tank in the same way. Below is an illustration of this plastic tank. It comes in different sizes as well as shapes. This has been really successful for me so give it a try and let us know how you did.

Note from Wendy Katz: This has worked well for me too, both with the Pet Habitat and with the Picture Window Baskets made by Luster. However, in this small space, the female really appreciates having a PVC elbow or some other means of making herself invisible.

Cyndy Gilbert

Another article courtesy of FLARE! (USA)

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## Hillstream Loaches

by V.B. Hunt

In the shops today one can frequently see strange, flattened, little fishes seemingly slicing up and down the front glasses of their display tanks. Over the years there has been some confusion as to their true identity; on the one hand they have been referred to as "cottiines"; indeed, they earned for themselves the outrageous name of "Hong Kong Plecs"; on the other they were an "any other species" with no fully established identity at all. Admittedly, precious little literature was every available about this species, but a generic name, *Pseudogastromyzon*, did reveal itself and someone spotted a little fish indigenous to Hong Kong called *Pseudogastromyzon myersi*.

I am, of course, referring to a small range of unusually shaped loaches, a large number of which have the generic name of *Gastromyzon* from the Greek "gaster" meaning stomach and the Greek "myzein" meaning sucker. There are also the closely allied genera, *Hemimyzon*, from the Greek "hemi" meaning half and the *Sinogastromyzon*, the latter of which is essentially Chinese in origin. In common name terms, the above species are generally referred to as "Hillstream Loaches" and they are found throughout South-east Asia from southern China, into Vietnam, Laos and Malaysia to the Greater Sunda Islands (Indonesia). There are, I believe, several species, some of which are confined to China and it is only the Chinese species for which I can provide any detail at all.

The *Hemimyzon* species (REGAN) are small, short-bodied loach species which are well flattened below. Their finnage approaches the form of the *Gastromyzon* species but it is less developed. The ventral surface of the head and body is flat and the bases of the extended pectorals confluent with same; the ventrals are similarly extended and overlapped by the free ends of the pectorals. Both head and tail are depressed and the mouth is inferior, small and transverse. There is the one small barbel at the angle of the

mouth; overall one pair of barbels present. In China there are seemingly two representatives:-

**Hemimyzon zebroidus**, which has narrow, pale, somewhat oblique bars on its flanks.

**Hemimyzon myersi**, which has a dark spot on the caudal base. This genus is also referred to as *Pseudogastromyzon*, from the Greek "pseudes" meaning false. I prefer *Hemimyzon*; it means half and the fishes representing this genus are a "half" development of *Gastromyzon*; the "false" I cannot comprehend.

The *Gastromyzon* species (GUNTHER) are more developed in their finnage (see sketch B) and the snout sharper in contour than in the case of *Hemimyzon*. Certainly they are well developed for the environment they live in, extremely fast running mountain streams where they would otherwise cling desperately to the large rocks and stones to prevent themselves being battered to death by the current. These equally small, short-bodied and flattened loaches are well furnished with ventral fins united to form a circular, suctional disc. These are overlapped by the free ends of the pectorals behind their axils. Again the head and body before the dorsal fin are depressed along with the caudal peduncle and evenly concave above. The mouth is inferior; small, semi-circular and transverse. Again there is one small barbel at the angle of the mouth; overall, one pair of barbels present. There are four species indigenous to China:-

**Gastromyzon leveretti**, which is of plain colouration, little spotted, with bars in both dorsal and caudal fins.

**Gastromyzon kweichowensis**, which has distinct, close-spaced black spots throughout the body and black and white margins in the paired fins.

**Gastromyzon pingi**, which has noticeable cross-bars on the body.

**Gastromyzon zebroidus**, which is pale-coloured with about 15 perfectly spaced, narrow, dark, cross-bars.

The *Sinogastromyzon* species (FANG) closely resemble those of the *Gastromyzon* group but differ in the

## Hillstream Loaches

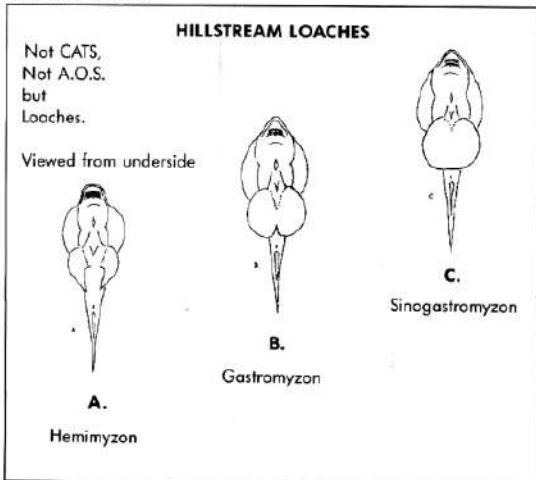
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following ways — the ventral fins are completely and evenly united behind, whereas in *Gastromyzon* there is a notch between them; (see sketches B and C), the gill cleft is elongate on the side of the head; there is no dorsal fin above the ventral fins and there are two small barbels instead of the one at the angle of the mouth; overall there are 2 pairs of barbels present. There are five species; however, there are no details available about any of them. The actual species are as follows:-

- Sinogastromyzon hsiashiensis*,
- Sinogastromyzon intermedius*
- Sinogastromyzon sanhoensis*
- Sinogastromyzon szechuanensis*
- Sinogastromyzon wui*

In general the dorsal/anal fin ray counts vary little; 8-10 in the case of the dorsal fin and 6-8 in the case of the latter. On the subject of lateral line scale counts, however, the *Gastromyzon* species have by far the greater figure, an average 120 compared with 61-70 in the case of *Hemimyzon* and *Sinogastromyzon*.

All these fishes graze on the algae and detritus which attach themselves to the rocks and stones of the fast-running streams in which they live. For a footnote, I must state that I would consider it an enormous challenge, perhaps even an impossibility, to provide the *Gastromyzon* type fishes with an artificial environment suitable for their well-being.



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## Mexican Adventure

by Chris Cheswright, Photos: Martine Mapes

IN THE SUMMER of 1993 seven intrepid explorers set off on a BA flight from Heathrow to Mexico City. Armed with nets, fish bags and cameras (and a few clothes), we arrived and were IMMEDIATELY subjected to a night-time taxi ride through the streets of Mexico to our hotel. The Mexicans find it impossible to drive without their hand on the horn, and cutting across 8 lanes of traffic without apparently looking first!

The next day we booked a VW Combi, but due to complications of not being able to drive it on one day a week in Mexico City — due to high pollution levels — we couldn't collect it until the next day. That afternoon, we took a stroll to the local park, Copultepec, a common pastime for Mexicans at the weekend, and found the boating lake as green as pea soup. At this point we encountered the rainy season, without anything waterproof! In the pea soup, a quick swoop of the net (yep like all intrapred fish collectors we didn't go anywhere without one) produced a large female *Giardinichthys viviparus*, a livebearer of the Goodea family and about 20 babies.

We decided not to take any, due to the difficulty other aquarists had experienced in keeping them. We squelched happily back to the hotel, via a convenient bar.

Let me introduce the infamous seven: Ken Adams (Southend), Dave McAllister (Corby), Martine Mapes (Southend), Colin Osbourne (SELAS), Robbie Somers (SELAS), Keith Mower (Southend) and myself. The next day, we set off early towards Puebla with Dave in the driving seat. After narrowly missing a few lorries on our way out and going the wrong way down an Autopista (as near as you come to a motorway), we eventually made it. In the next few days we continued south. The water encountered contained no fish and much of it had been diverted into rapidly flowing irrigation canals, leaving the actual rivers dry (a large lake shown

was not seen). Not at all encouraging for the local wildlife.

We continued towards Tehuacan and here found our first fish, Guapipe, did we celebrate that night? In a bar in Tehuacan we had our first encounter with peanuts covered in chili sauce (we had already had garlic in extra-hot chilli). In Mexico beware what you put in your mouth! The next day our map showed a red road cross to Tuxtpec, where we wished to end up, and some large bodies of water. It looked like a good day's drive. This is where any faith we had in maps disintegrated. A red road could be a 4 lane highway, a 2 lane road with holes (and the occasional dead dog) or ... read on!

We started up a mountain and went up and up and up, then down, then up again. Eventually we came to a place called Huautla, where the road disappeared and became a track (I have walked up better scree slopes) but the locals kept pointing on until we came to a T junction and rain. Here the locals pointed us back and we slipped our way back to Huautla, having to get out and push once. No Sheraton here, the accommodation was prison-like and wet, the bar was in the local chemist where they tried to ply us with a dubious brown liquid in old tequila bottles. We left very early the next morning, having to negotiate our way through the market and missed the local delicacy of magic mushrooms.

Back down the other side and into the desert, we found our first river with fish, the Rio Tehuacan. They were *Poecilia sphenops*, Mollies, with beautiful gold spotting, we were to find these in the next few rivers which all flowed into the Rio grande, to get to one location, as for many others, we had to circumnavigate a heap of rubbish dominated by disposable nappies. Later we caught the same fish in the Rio Grande, a very shallow, fast-flowing river, and it is here that Martine found a hole in the river bed and almost drowned ..... and she had the First-Aid kit!

We proceeded to Caxaco, along with its tourists, but the river here was bubbling methane from the bottom and lacked any fish.

We then went north to Tuxtpec (have you noticed how everything in Mexico begins with T?), this journey starts in the desert, proceeds up into the mountains through pine forest, to alpine conditions and down the other side into the rainforest. Robbie attempted to pass a large lorry carrying logs on a very bendy road, he eventually succeeded. It was no wonder we drank so much each evening. We came to a stream, after a wait for the workmen to replace the road at one point, at Puente Yella. Here the stream bed was covered in large pebbles and boulders with no plant or algae. We saw large *Xiphophorus helleri*, Swordtails, but catching them was impossible as they disappeared beneath the rocks. We did catch some smaller ones and also the first of many *Heterandria bimaculatus*. Two spot livebearers. The local women who were doing their washing donated a freshwater crab which we photographed and put back. Just past the Puente Yella alcoholics anonymous.

A muddy hole was our next collecting place, at Paraiso, this was obviously a pond at some times of the year. In the mud we caught many *Gambusia sexradiata* and lots of *Tilapia* (the latter are introduced as a food fish). These fish were packed like sardines into what looked like a muddy tyre track. We were assisted here by a rather vicious looking turkey and a local boy who keenly dredged in the mud for the fish. When we arrived here I was descending the bank when I found MY snake (I say MY because most of us encountered one. Dave nearly trod on one, Martine had one on her foot, Ken nearly fell into a river when one launched itself into the water) which was about 6' long and shot out at breakneck speed from the undergrowth. I wonder why some of the gang stayed put in the van? We often encountered lizards and the like but fortunately most of it was trying to get away from us.

The next day saw us heading towards Lake Catemaco on the east coast, the water conditions so far had been

generally hard (GH 20+) but here the volcanic soil imparted a hardness of between GH2-5). We tried to stay at Aan Andrea's Tuxtla but the place was full of police, so we stayed in Catemaco, with the luxury of a swimming pool and resident volunteers. Here the rainy season really showed itself with some spectacular storms. The next day some went on a boat trip, whilst Dave, Ken, Martine and I drove on the coastal road, sorry truck. We found *X. helleri*, *H. bimaculatus* (the larger ones, up to 4", were always caught in pairs), and *Poecilia catemaco* another Molly, the road at some points was more like a river and at one point the water slopped over the top of the van. Our goal was *X. milleri*, a Platy, which were eventually found in a slow flowing stream through a field of cows, this was entirely different to the other streams we had fished. If you look in the Atlas of Livebearers the stream is actually photographed.



Checking the fish near Huautla de Jiménez.



Rio Tehuacan.



### 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 — it 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!

**J257 DCH**

Winner of the DECEMBER ISSUE was ARIE, JOYCE CHURCHILL, AZALEA PARK, BRISTOL who receives a year's FREE subscription to FISHWORLD Magazine.

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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## The Corydoras Caper

by  
Shorty of Corby

This group of fishes in one of the most popular at the moment. I am sure that 95% of tropical fishkeepers in the world have at least one of these jolly little chaps in their tanks.

I took a shine to them many years ago and have tried on countless occasions to get them paired up and fattened up and sexed up. They rewarded me with being fed up! ... maybe I have been buying bent ones!

I have tried *hostatus-julii-aeneus-punctatus* etc. Home bred, wild bred and farm bred, all to no avail. I have tried them in hot water-cold water-soft water-hard water-clean water and dirty water, plus all the combinations thereof.

I have tried them in pairs, threes, fours and fives and even tried a veritable 'gang bang'. They thought it was a tea party! I read books by Sterba, Burgess, Axlerod and Emmens but it soon became obvious that the cats were not reading the same books that I had delved through.

One day at an Open show I was covering, I bought a very ripe female *paleatus*. A few days later in a different locale I purchased a fine specimen of a male *paleatus*. You should have seen the dorsal on this one, a real outstanding feature. At home they were placed in different tanks and fed well, thrice a day, on the usual fare of worms, Grindal, bloodworms and garden worms.

About a month later I put them together with about twelve daphnia each. Behold!! ... they did the impossible, they got down to the business of procreating the species. Mind you, they were new to the game and laid about eighteen eggs.

Never were fry so carefully watched. Now I knew for certain that I had a 'breeding pair'. I decided to remove the parents to a post-natal tank before they got any daft ideas, like making a meal of them! The final count was thirteen fry and jolly little devils they were too! Needless to say I wondered, because I am like that, what I had done wrong/night. I decided to try again a few weeks later, but the

conditions were a bit different. The reason was thus — after I chopped down a garden hedge from 8' high to a workable 5', I noticed that the neighbour had a hundred gallon water butt. I thought to myself, 'pure rain water - the Corys would relish that'. The tank was prepared and I waited for an opportune time to see the neighbour.

I retire to bed at 12.30 and try to ignore the racket from the neighbour's television on full blast and him having a row with his brother. I got up at 1.30am and went next door to say "It's 1.30am, do you think you could turn the telly down by about 8 decibels?" He apologised and the telly went off. I returned to bed thinking, "there goes the rainwater".

Next morning the neighbour says "Good morning Mr. Short". Re-affirm with the neighbour that it is a grand morning and say "I have something in the house for you". Retire to house and reappear with a bag of Penthouse 'Men Only' etc. "Here is something for you to read" (knowing the difficulty that would bring). "By the way, do you have any water in the butt?" "Yes, Mr. Short, you can have as much as you want".

A hose-pipe was laid on and the Cory tanks were filled. The two 'sex-pots' were placed without further ado into the tank and left to do it with a dozen Daphnia each. Later that night, at eight of the clock when I went to put out the lights they were at it again. (No, not the neighbours). There are five eggs on the front glass and they are nudging and mouthing away at each other great style. Think, Cemerai Find camera and then remember that the flash gun got stolen at the fairground. Try to improvise and find there are only 2 frames left on the spool. More cursing, I stayed in the room 'til gone midnight when I nodded off. By this time, there were about 60 eggs on the sides of the tank.

Previous tears about the quality of the water were dispelled, thoughts about whether the water had been used to drown the odd kitten or two NEVER crossed my mind. Still, I suppose there are more than dead moggies that get dropped into the Amazon. After all, we are breeding *Cat-fish* here!



## The Fathead Minnow — Pimephales promelas

by Joe Farrell, NDAS Dublin

I have a small pond in the back garden, 8' x 4' x 2' deep. I keep small shoals of medium sized fish in it, i.e. shiners, wccm, fathead minnows etc. It is the Fatheads I would like to write about.

I purchased eight of these little 1½" yellow fish about a year ago, 3 males and 5 females. I could find no information on these fish, their country of origin, breeding etc. I only knew them as minnows — I later found out that they were fathead minnows, *pimephales promelas*, originating from America where they are bred with their yellow colouration for Anglers. I was also informed that they were hard to breed, which did not prove to be the case. After 6 months, males had reached approximately 3" and the females were about 2½". Sexing is easy, the males develop a fleshy growth on their heads and also develop white tubercles on their faces during the breeding season. The females lack both of these characteristics but seem to be heavy with eggs permanently, even outwith the breeding season. The males can easily be recognised by their rounded heads. Last April I went out to give them their morning feed (I feed them on Daphnia River Shrimp which I cultivate from white worms and flake). I counted 7 — 1 was missing. Although the pond is small, I could not find him and looked around the edge of the pond — no body! It was then that I noticed a small clearing under a stone in the pond. I lifted up the stone and there was number 8, darting all over the place. I soon found out why — on the under-side of the stone was a cluster of eggs laid in a circle the size of a 2p piece. None of the eggs were overlapping, needless to say I

put the stone gently back in the pond. The male promptly returned to his duties of fanning and cleaning the eggs. I checked the eggs daily and on the 5th day the eggs had eyed out. There was also some movement in some and on the 6th day they had all hatched. All the eggs were good and I fed the resultant fry on Aquifry and mushed-up peas and crushed boiled egg yolk. The fry are slow growers, taking some 3 months to get to ¼". I put the breeding pair into a 2' breeding tank and within 2 weeks they had spawned again, this time I could note their spawning behaviour. There was a lot of chasing, quivering and clearing a spot before spawning. As soon as the pair were put into the tank the chasing began by the male who would keep nudging the female sides and quivering. They would then make a clearing under the cave. This was mainly the male's job and on completing the spawning site he would let the female enter, her ovipositor clearly visible. She would then turn upside down and spawn on the roof of the cave with the male also upside down fertilising the eggs as soon as spawning was complete. The female was then evicted and the male takes over. He uses the fleshy growth on his head to make sure the eggs are secure and don't fall. He defends the eggs in Cichlid style, taking on fish much larger than himself. The remaining pairs in the pond spawn regularly, the parents not bothering the fry if well fed. The original batch of fry are growing well and are large enough to share a tank with young half-beaks at a temperature of 70°.


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

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.

Watch for this sign in your local preferred shop —  
if it does not appear ask if they are interested in the scheme.  
Show them this magazine if they are interested. Let me have the details.  
Thank you. Bob Lemmon, 17 Fernbank, Walderslade, Kent ME5 9NH

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## Fish rescue in the North West

A man dropping a brick on the head of an unwanted fish prompted Phil Hunt and five like-minded colleagues to establish the Cheshire based **North West Fish Rescue (NWFR) Service**.

Earlier this year, Phil started NWFR from home, to care for neglected and mistreated fish and reptiles in the Cheshire area. With a lot of hard work and some generous help — in the form of donations from companies such as leading aquatic products manufacturer, Interpet Limited, Phil and his 5-man team have taken in literally hundreds of fish.

"It is quite unbelievable how many people flush fish down the toilet or throw them in the canal, instead of finding a new home for them", said Phil. "We are currently looking after 11 *Pacus* (all over 2'), 2 *Redtails* (the biggest is 3' long), 2 *Red Davits*, a 14" *Snakehead*, *Piranhas*, *Red-eared Terrapins*, *Soft Shelled turtles* — you name it, we've got it!"

NWFR has literally taken over Phil's life, and home. He has approximately 60 aquaria — they are in the fish house, shed, living room and even in the kitchen! The rescue service always tries to find good

homes for the fish — and these have included both Blackpool and Southport Aquariums and some respected zoos.

As Phil is currently unemployed, the cost of keeping all these fish in clean, healthy tanks is somewhat of a strain.

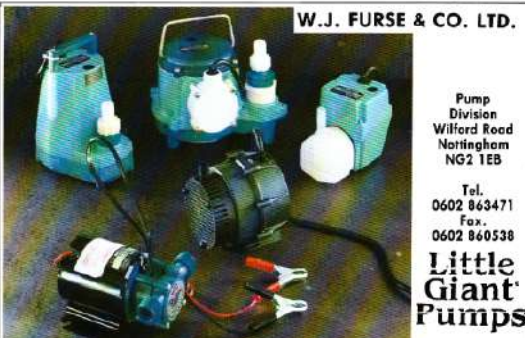
For example, with all the pumps and heaters running, his weekly electricity bill is nearly £40! Volunteer organisations are always grateful for donations of equipment or money, and NWFR is no exception.

Phil and his colleagues have sent out over 200 letters to companies and organisations around the country asking for their help. Only a handful of companies, such as Interpet, have made generous donations of supplies, helping the team in their work. Most companies didn't even reply at all.

Phil is now looking to transfer the operation to an industrial unit as the rescue service is getting too large for his house!

If you do have any unused aquatic equipment you would like to donate to the NWFR, a 24hr answering service is available.

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## Little Giant Pumps

## Spawning Aspidoras

by Christopher Fischer-Dieskau

Last May I made a quick lunchtime trip to a local dealer to buy some frozen bloodworm. Now, a visit to a fish shop is never quite that straightforward is it? While in a shop not many of us can resist a comprehensive examination of the tanks. All the tanks!

I bought 4 *Aspidoras*. Only four were left at the back of an otherwise empty tank. The tank label was printed "*Aspidoras*" with no specific name, the proprietor of the shop had no other information.

The fish were about 15mm body length with sharply defined peppered body markings and a healthy sheen on the operculum. I guessed that I had 2 male and 2 female fish, and that guess (for once) was confirmed as the fish developed.

With the fish delivered safely home, after an afternoon on my office desk at 75°C, they were 'debagged' into a 36"x15"x12" aquarium with small, rounded gravel base, up, filter with fiercely aerated uplifts and well planted with Java Fern which seems to thrive in a tank with no artificial lighting.

The only light available is from two windows facing north and west, which are on the opposite side of the room. Another unusual, or perhaps undesirable feature of this tank is the heating arrangement, which is 2 old black Uno heaters suspended, one in the centre of the tank and the other at the end, next to the external thermostat. The effect of this arrangement results in fairly big temperature swings of several degrees centigrade.

Half a dozen *Microgeophagus Altispinoso* and six *Barbus narayani* are the rest of the community which appear to survive the arrangement. pH is neutral and total hardness 10-14°.

Over the next few months the *Aspidoras* grew quickly on a varied diet heavily supplemented by live tubifex (and

frozen bloodworm, which is where this story began).

By now I believed these fish to be *Aspidoras fuscoguttatus* because of the markings developed in the dorsal fin and body. I did notice that the week and water change sent the fish meekly bouncing around the tank, so that for several hours afterward they were still very active chasing each other the entire length of the aquarium. It was now August, 4 months after purchasing these little fish, and it seemed a good idea to increase water changes. So now, 2 or 3 times a week depending on my evening energy level, a 30% water change was carried out.

The female fish were now very round and both sexes showed good colour. The male fish each would chase a female continuously and, if the other female was found, the partner was instantly swapped.

Otherwise, the courtship behaviour was one to one, without any tris seen. After weeks of continual 'spawning', activity no eggs were to be seen deposited anywhere on likely spawning sites. When September arrived, although the water changes and feeding programmes continued, I gave up looking for eggs.

The routine day for a water change was Saturday, but 11 September was the date of Hounslow Open Show, so this job had to be carried out Sunday. When the tank water level was reduced by siphoning, I saw what I took for a cluster of air bubbles stuck on the back glass, just 1" below what had been the water level.

Water from the aquarium was siphoned into a 7" show tank and a few drops of methylene blue added. A Stanley blade was used to scrape upwards to remove the single clump of eggs. The eggs were extremely sticky and could only be removed as a flat and perfectly round 'plate' of eggs.

The individual eggs numbered about 50, were surprisingly large for a small fish and a pale yellow/orange colour. Aeration was added to the hatchery which was now floated in warm (74°C) aquarium. The whole 'omelette' was fertilised, as every egg was coloured. It was likely that the eggs had been laid for perhaps 24 hours.

## Spawning Aspidoras

The parent fish were still very active on the tank bottom, and it did cross my mind because of the almost constant activity, it was likely that previous spawnings had occurred, hatched, and disappeared amongst the predators in the tank.

Hatching was complete by 8.00pm the following evening, so a lettuce leaf was blanched and introduced directly into the floating hatchery. The product of large 2-2.5mm eggs were fry so small that an individual when not wriggling was difficult to see, even in a bore tank.

Because the fry were so small I am not sure when the yolk-sacs were depleted, but after 28 hours they were free-swimming and picking around for food.

By day 6 liquid-fry food was also added, and at day eight fine flake was substituted together with daily 80% water changes from the parents' tank.

At day ten no losses from the original 'plate' of eggs had been suffered at all. That happened on day eleven, when 2 fry were lost.

Over the next 4 days, 2 or 3 fry died every day, until the original number were reduced by 25%.

Although these baby fish were very small, it was decided to introduce tubifex.

(continued)

As the worms were much bigger than the fish it was not certain during the struggle that followed, whether the fish or the worms were on the menu, but overnight the *Aspidoras* gained 50% in bodyweight.

I should also mention that following the initial spawning, several clutches of eggs appeared at more or less weekly intervals, which were easily noticed once the site was recognized. It is possible that eggs had been laid before those first noticed, but had 'disappeared'.

After 8 spawnings, the activity has stopped, although the regime of feeding and water changes has continued.

Perhaps the season has finished. After a total of 5 weeks growing in the floating show tank, 35 fry were returned to the aquarium with the parent fish. The size of these small *Aspidoras* were now 12-14mm body length. The parent fish appear to have stopped growing at 35mm males and 40mm female body length.

I retrieved one other 'plate' of eggs from the slide glass 29 days after the first, having allowed spawnings in between to disappear. The only difference in the care of the fry second time round was to start tubifex feeding much sooner, with the result that no losses at all were suffered from the time of transfer of eggs through to 6 weeks later when the youngsters were introduced into another aquarium.

## TRADE NEWS — 2 New Protein Skimmers

The efficiency of any bubble-using protein skimmer is directly proportional to the time that the aquarium water is in contact with the stream of air bubbles in the reaction chamber. Usually this is achieved by counterflow systems but now the Berlin Protein Skimmer from RED SEA FISH PHARM has taken prolonged this process much further. The reaction chamber is a three-stage affair, the water working its way up, down and up again before (without any bubbles) being released back into the aquarium. This action makes for super efficient skimming, removing even the smallest amounts of waste and, in the event of ozone being used (as it quite common), ensures none of this potentially harmful gas returns to the main tank. The unit is 21" (53cms) tall and includes a carbon

air filter on top of the collection cup; air is drawn into the system by means of a venturi and a water pump impeller such as the Heim Hobby 1060 is recommended. Because of its advanced design, it is able to outperform units of twice its size, extracting lower concentrations of protein at the same time.

The practice of protein skimming in freshwater applications has not yet caught on, but a range of double venturi FOAM FRACTIONATORS (the push words for protein skimming) able to handle 3,000 to 75,000 litres bodies well (particularly for Koi Keepers), and are said to prevent ponds free from 'yellowing'. Details of both protein skimmers from:

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Here's how BioLife performs, stage by stage:

#### STAGES 1, 2 and 3

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#### STAGE 4

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#### STAGE 5

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## CLUB NEWS

### Reigate and Redhill Aquarist Society

Herewith our main committee members, as elected at our Annual General Meeting on 17th January 1994.

**Chairman** — Mr. Sid Fawcett Tel: 0293 786078  
**Secretary** — Mr. Ivor Stemp Tel: 0293 783249  
**Treasurer** — Mr. Dick Gush Tel: 0737 765152  
**P.R.O.** — Mr. Jeremy Spence Tel: 0293 512932

### Bring & Buy Sale

at  
**Strawson Hall, Albert Road,  
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**18th April 1994**  
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 All welcome  
 including non-club members

### Northampton and District Aquarist Society, Affiliated to FBAS.

General Secretary/Treasurer:  
 E. Sanders, 20 Berkeley Close,  
 Northampton, NN1 5BJ.

### Northampton & District A.S. Annual Open Show

10th April 1994  
**FBAS Championship Class C**  
 at  
**The Gladstone Lower School,  
 Streetfield Road, Northampton.**

details from:  
 Mrs. D.E. Woodman,  
 (Open Show Secretary)  
 22, Fishers Close, Little Billing,  
 Northampton NN3 4SR  
 Tel: 0504 411591

**Northampton & District Aquarist Society (N.A.D.A.S.)** holds regular monthly meetings at The Broadmead Public House, Broadmead Avenue, Northampton on the 1st Thursday of every month at 8.00pm. New and old members welcome.

The following members have been elected to new posts: **President:** Paul de la Mare **Chairman:** Phillip Jones, **Vice-Chairman:** Michael Jones, **Table Show Secretary:** Andrew Holloway, **Assistant Table Show Secretary:** James de la Mare, **Open Show Manager:** Paul de la Mare and **Librarian:** Gary Lewis.

### Yorkshire Association of Aquarist Societies presents



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### SOUTHEND & DISTRICT Aquarists Society

### OPEN SHOW

7th May 1994  
**The Appleton School, Craft Road, South Benfleet, Essex**  
 Contact  
**Chris Cheswright**  
**0268 732531**

## CLUB NEWS

(continued)

### EASTLEIGH & DISTRICT A.S. present their 6th Annual OPEN SHOW & Auction

on Sunday 22nd May 1994 at **PIRELLI GENERAL SPORTS & SOCIAL CLUB, DEW LANE, EASTLEIGH**

Schedules & information from:  
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### 10th OPEN SHOW

on **Sunday 19th June 1994**

at **BOYS CLUB, WRIGHT STREET, BLYTH, NORTHUMBERLAND**

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## The Tradesman's Entrance

Spring must be here — the coats on my corner pond have stopped hiding in the marginal rushes. Instead, there's a flurry of wings and a more or less irritable croak to greet any intruders, whether human or just a passing mallard. And if it's officially Spring, then it's time to think about fish.

We make a part of our living (or so the accountant says) out of the exorbitantly expensive fish which we hope you will be buying from Easter onwards, in your local garden centre.

It's a 2 year process for us; hatch them in the Spring, grow them through the Summer, rest them in the Winter and bring them to market the following Spring, ready for the start of the Garden Centre Season when we hope we have guessed right what it is you will be wanting in 12 months time. Generally, we seem to be growing enormous quantities of whatever it was you wanted last year.

And thinking of fish ..... brings me to the bugs!

We will be hatching indoors an assortment of carp species, some for the table and some ornamental varieties for your garden pond. Then we shall plant them out into earth ponds as soon as the temperature is high enough and this is where the trouble starts! So that we can take advantage of what nature provides in the way of food, these first ponds have to be prepared for them — turned into a nursery full of food in fact. Simple really, we "just" sterilise the pond and then later add some fertilisers. Both natural manure, and others, mainly the ordinary gardener's ammonium nitrate and superphosphate. All good stuff, I hear you say?

Now nature takes over in a big way — the water changes colour fast and if you look close enough you can see that in a few days it is actually teeming with life, microscopic as well as much that you can just about see with the naked eye. A white disc or plate held on a stick a little way under the water shows it up well.

These hatching fry really dip into the natural ladder, kindly provided by the throngs of zooplankton, which fortunately come in a variety of sizes and types to match the mouth of the fry as it grows. It's important that we time it right, so that there are masses of the right size "bugs" available at the right

time so that our fry will have plenty to eat, and grow on to be healthy and expensive adults.

If we get the timing wrong, we have a problem. As well as being tailor made as a diet for immature fry, the zooplankton will actually start to eat each other faster than fry can get to them. Worse still, another chain or organism starts to build up, each type feeding on the other. Within a few more days, they will get to a point where, horror of horrors, they will actually start to eat our fry before they can feed themselves. Top of that particular chain are the water beetle and dragonfly larvae we all know, but there are so many more down the line anxious to eat our tiny harvest before we get to it. If we don't control them early enough there are dozens of others, tiny aquatic insects and crustaceans, all lined up ready and waiting to feed on what these fertile ponds produce. They don't seem to mind if they are dining on rotifers, daphnia or high quality koi.

If we get it right, we will have killed off all the larger animals in the ponds. Under the stimulus of the strong fertilisation, the tiny rotifers will have hatched first, and will thrive in their millions — these are the important early food of the developing fry. As a matter of fact, nothing bigger than this will fit inside the mouth of the fry, however hungry. Left to their own devices, the slightly larger beasts, like the cladocera and copepods would now be developing, and they in turn would prey upon the rotifers, to the detriment of our fry, who would be competing for the same food source.

Nature cannot stop this, but as they say — we know a man who can. Again it's a matter of timing, plus a little chemistry. Just before we stock out the fry, the water is treated with a suitable insecticide. This knocks out the bigger animals, and allows the tiny rotifers full access to all the nutrients in the ponds for several days, while they multiply and grow like anything, until THEIR predators hatch out. But by then, if we got it right, the fry have eaten all the rotifers and grown just enough to cope with the bigger boys in turn, who then become prey rather than predators, and away they go again — my "bugs" eating each other to their hearts content.

Then we can start to feed the fry on the artificial foods which they were too small to take at the start .... and then we can sell them to you!

From Simon the Fisherman (AQUAVITA)



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## Preformed Ponds

by Harry Hooper

**T**ODAY's pace of life affects us all in one way or another. These days the majority of people seem to want things done yesterday, this even applies to many of the newcomers to the hobby of water gardening.

During the early days of pond keeping people generally had far more patience and pond construction was a timely and labour intensive task. When water in the garden originally became popular moulded plastic or fibreglass was unheard of for pond construction. The only method that could be applied to create a pond or water garden was either puddled clay or reinforced concrete and apart from the strenuous efforts incurred during construction, normally both these methods eventually leaked and on many occasions the idea of pond keeping was abandoned. Fortunately nowadays we have the technology and modern materials being introduced to the hobby of water gardening. The modern methods of pond construction have enabled us to produce a water garden relatively easy and without too much expense.

Preformed ponds can be purchased, as the saying goes, (off the shelf), not only are they light weight they are available in many different sizes and designs. The other advantage with preformed ponds is, of course, the instant water garden. Depending how energetic you are you could purchase a pond in the morning and have it fitted and working the same day, and if the water has been treated to neutralise any dangerous chlorine present in tap water, one or two fish can be added to keep the kids quiet.

Preformed ponds are manufactured from either moulded plastic or fibreglass. The moulded plastic types are normally in the lower price range. This is due to the speed that they are produced. You will find the dimensions of moulded plastic (ABS) ponds are limited, this is their only drawback. The reason for this is the

manufacturing method. These ponds are formed from a single heated sheet of plastic material, therefore sharp angles or unusual shapes could possibly give way to the plastic becoming too thin as the pond takes shape. However, the manufacturers of plastic ponds only produce designs that will stand up to their guarantee. Plastic ponds installed correctly will give you many years of pleasure. Glass fibre pools of first appear to be similar to the moulded plastic type, but fibreglass is such a durable material you will find that ponds manufactured from fibreglass are available in more unusual shapes and forms.

The manufacturing methods of glass fibre ponds enables the manufacturer to apply the same thickness of material to all areas, therefore the size and shape does not create a problem. The other advantage with glass fibre pools, should they ever get damaged they are easily repairable.

Before you commence creating a water garden using a preformed pool, a little extra care and effort during construction will undoubtedly benefit the end product. Try to imagine the finished article. When installing a preformed pond, always try to keep the excavation as near as possible to the size and shape of the pond. It is advisable to keep trying the pond in when the hole starts to take shape. Once the pond fits the excavation, dig out a further three inches all over, this will give enough room for a base and room to backfill properly. Before finally positioning the pond, lay a level concrete base for the pond to sit on. This should ensure the pond will not move at a later date, as nothing looks worse than a pond installed out of level. Once the pond is in position, half fill with water. This will secure the pond when backfilling. The recommended material for use to backfill is a mixture of sharp sand and cement, using a dry mix of 6 parts of sharp sand to 1 part of portland cement consolidated to the top, this will not only secure the pond in position, it will also act as a substantial base for paving around the pond's edge. Hiding the edge of preformed ponds can

be a problem, it is far more difficult than a liner. Plants can help a great deal. Paving position with an overhang is another method, but the best method is the fairly recent idea of manufactured rock stone. The rock stones are designed with

an overhanging lip that totally covers the edge of the pond. Whichever you choose to finish the water garden, or you may choose a mixture of all these ideas, try to create a natural appearance.

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## FISH SHOWS & CONVENTIONS 1994

DATE	SOCIETY	DATE	SOCIETY
<b>MARCH</b>		<b>JUNE</b>	
6 Mar	Barley in Wharfedale A.S.	12 June	Llantwit Major
19 Mar	K.A.A.S. Convention	19 June	Carrnock A.S.
20 Mar	Barley A.S.		Blythe A.S. (Xb-m)
27 Mar	Kings Lynn (J) (Ro)	<b>JULY</b>	
<b>APRIL</b>		2 July	Nailsea A.S.
10 Apr	Norhampton (Co)	3 July	S.E.L.A.S.
10 Apr	Swale & District A.S.	5/10 July	Hampton Court
17 Apr	Wenthy (Do)	9 July	Port Talbot A.S. (E)
	Stroud & District A.S. (Ho)	24 July	Porterias A.S. (L)
22-24 Apr	Grocklemania I.O.W. (T)	<b>AUGUST</b>	
24 Apr	Isle of Wight A.S.	14 Aug	Salisbury A.S. (W)
<b>MAY</b>		27/28 Aug	C.N.A.A. Festival
1 May	Swindon A.S. (M)	28 Aug	Welsh Open
7 May	Southend L. & D.A.S. (H)	<b>SEPTEMBER</b>	
8 May	Brecknell A.S. (V)	4 Sept	Darlington (P)
	Gateshead (D)	10 Sept	Hounslow & District A.S.
	Thorpe & District A.S. (Dc)	18 Sept	Mid-Sussex A.S.
15 May	Aberdare A.S. (Cb)	24 Sept	Bristol Trop. (S)
22 May	Corby & District A.S. (La)	25 Sept	Cramlington A.S.
	Eastleigh A.S. (No-1)	<b>OCTOBER</b>	
	Cardiff A.S.	16 Oct	Solway A.S.
<b>JUNE</b>		<b>NOVEMBER</b>	
5 June	Erith & District A.S.	4-6 Nov	Supreme Festival of Fishkeeping
12 June	North Bucks A.S.		



Hagen 'Nutrafin' Christmas Party at Castleford, Yorkshire.

## New Hagen Society Support

Following on their generous support for Open Shows in past years, comes news of Rolf C. Hagen support for Societies in 1994.

A change of emphasis means that the whole Society's membership can benefit from the Company's support rather than the fortunate few who take prizes at Open Shows; after all, not every one enters Shows nor does every Society hold an Open Show. For 1994, Societies will receive the following:

The first 100 Societies to affiliate to the Federation of British Aquatic Societies will receive a **HAGEN POWERHEAD** (automatically sent by the FBAS Treasurer, as stocks are received from Rolf C. Hagen).

A **\*SOCIETY PACK** of Hagen products will be provided to all Societies, the contents of which may be disposed of according to each individual Society's wishes — it may be for Table Shows, Quiz Prizes, Raffles or any other 'good cause'.

Hagen **\*\*NUTRAFIN SWEATSHIRT** for the **Best in Show** at the Society's Open Show.

**NEW FOR 1994** A special **\*\*\*Hagen 'T' Shirt** provided to be awarded to the individual within the Society who, in the opinion of the Society, is their **FISHKEEPING PERSONALITY OF THE YEAR**. This may be for Showing, Breeding or any other selected choice of service to, or on behalf of, the Society.

\* For your Society's **SOCIETY PACK** apply to the FBAS Trophy Officer.

\*\* If your Society is holding an Open Show in 1994, apply for a **NUTRAFIN Sweatshirt** to the FBAS Trophy Officer, your Show Schedule must carry the relevant Hagen advertisement, available from the same address.

\*\*\* For your Society's Fishkeeping **Personality 'T' Shirt**, write to the FBAS Trophy Officer with full details of the qualifications of the winner. These qualifications will not be judged in any way nor used to eliminate, or otherwise deny, eligibility for application.

### CONDITIONS & PROCEDURE

For  
**'BEST in Show' Sweatshirt.**

APPLICATIONS MUST BE MADE THROUGH THE FBAS. APPLYING DIRECT TO HAGEN WILL ONLY CAUSE A DELAY IN THE PROCESSING OF APPLICATIONS.

1. Apply to FBAS Trophy Officer for Hagen advertisement material.

YOU MUST ALLOW SUFFICIENT TIME FOR THE ADVERTISING MATERIAL TO REACH YOU FOR INCLUSION IN YOUR SHOW SCHEDULE.

2. Final Show Schedule must carry a HAGEN advertisement.

3. Societies MUST INFORM Trophy Officer of winner's details.

### CONTACT ADDRESS

FBAS TROPHY OFFICER  
5 The Nook,  
Corby Village,  
Northants NN17 1XA

## FBAS NEWS

### North, South, East and West — The Best of the FBAS

You may have already seen the letter from Strood A.S. in this issue, proclaiming their victory of the European Open Show which formed part of the 1993 Supreme Festival of Fishkeeping at Weston-super-Mare. Whilst quite happy to acknowledge their achievement (and also apologise profusely for not including it in the Show's report!), readers might appreciate stories of other Societies' success from all over the country where FBAS activities occur.

Starting off with **Grocklamania '93**, the eastern side of the country was more than worthily represented by **Southend & Leigh & D.A.S.** who emerged as the AQUACLUB Champions in the Aquarist-supported event triumphing over (well alright, Strood A.S.) in the Final.

Later in the year, the North and South both had their share of the limelight at the same event — the 1993 Supreme Festival of Fishkeeping at Weston-super-Mare — with Colin Tweedle from Tyne-Tees becoming the Aquarist Aquachamp for 1993. The top prize for fish was the Supreme Championship and this went to Andy Feast from Mid-Sussex A.S. (not Hastings A.S. as reported in the last issue of Fishworld, again apologies to all concerned).

Finally, at the Federation's Annual General Meeting in December, the next President of the Federation was duly elected and this completed our 'round of the compass' of celebrities as Bill Rundle from Plymouth A.S. has now taken over from Bob Esson.

As you can see, fame (if not fortune) has been achieved by aquarists from all parts of the country and, whilst each and every one of them rightly deserve their honours, for the moment no one Society has pulled off what might be considered to be the Grand Slam — The Aquacub, Aquachamp and Supreme all in one year; now that might well be an achievement worth striving for — and we'll promise to report it!

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## PEOPLE

### Plymouth provides new President

At the Annual General Meeting of the Federation of British Aquatic Societies (F.B.A.S.) Bill Rundle was unanimously elected President for the next three year period. Bill is a much active member of the Plymouth Aquarist Society and a well-known figure in the South-West of England, attending most Shows throughout the year. Every three months, over many years, he has made the long journey to London to attend FBAS meetings, joining in each debate with pertinent comments and constructive criticisms and so is well-versed in FBAS activities and will bring honour and credit to the Office of President.

### New Council Members

The Posts of Advertising Officer and Society Support Officer were substantiated and they were filled by Bob Lemmon (Strood A.S.) and Paul Corbett (I.C.W. A.S.) respectively, continuing on from their co-option to the Council last year. Bob has already expanded the Federation's **Dealer Discount Scheme** for Societies whilst Paul has collated many show dates for the coming year, having sorted out several clashing dates on the way. Paul's services are open to any Society holding, or intending to hold, an Open Show; if you want a vacant weekend date in your area for a Show (or intend moving an existing Show date) ask Paul for information first — it'll prevent our Society being complained about or losing exhibitors through clashing with a neighbouring Society's Show. Paul's address is:-

**The Orchard, Gatcombe, Isle of Wight.**

New Chairman for the Judges and Standards Committee is:

**Ken Saxby, 316 Broadway, Bexleyhead, Kent DA5 8AA.**  
Fete Cattle's new address in Scotland is:  
**2 Endrick Gardens, Balfour, Glasgow G63 0RB**

## FBAS News

(continued)

### Call A Spade a Spade — A Rose by any other name — but a Cichlid?

Yes, you've guessed it, they've done it again (and just in time for the Show Year too) and changed a lot of cichlid names!

However, right on time the U.S. Cavalry (in the shape of the J & S book writers) has galloped to the rescue; you can now correctly name your cichlids (especially those African types) and so escape either the wrath of the Judges or

the criticisms of your 'know-it-all' friends.

Look out for the **Cichlid Name Supplement** amongst the Federation's many publications. Of course, that well-known best-seller, **Booklet No. 6 — National Show Fish Sizes** is another 'got-to-have-before-the-First-Show' indispensable helping hand to ensure you get the best out of showing.

### TRADE NEWS — Happy New Year, Marinists!

The earliest 1994 news from TETRA is about new products for marinists. **Tetramarin** is the collective brand name to look for and **Water Conditioner**, provides vitalizing agents, helping to build disease-resistance in fish by supplying bioactive iodine, and is a useful prophylactic against goitre and diseases caused by vitamin deficiencies. Promoting appetite, it will also encourage green algae growth and so give beneficial results in aquariums containing invertebrates. The two bottle treatment is added on a proportional total water volume basis when setting up a new aquarium or during regular partial water changes.

Now both enriched with Vitamic C, **Tetramarin Flake** and **Granular Foods** will easily satisfy healthy appetites; the floating Flake Food is suitable for the majority of marine fishes whilst the slowly sinking Granular Food will be relished by medium-sized, and larger fish.

Should your fish, despite all the previously described beneficial treatment and nourishing foods, contract a parasitic or bacterial infection then **Tetramarin Disease Treatment for Marine Fish** is the answer. This unique medication is also safe for most invertebrates but not in tanks containing **Starfish, Sea Urchins and Sea Cucumbers**, as these animals when under stress may release toxins into the water. The treatment does not contain antibiotics and will not disrupt a properly functioning biological filtration system. Details of these and other Tetra products from:

**TETRA**  
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Chestnut Avenue,  
Eastleigh,  
Hampshire SO5 3ZQ.  
Tel: 0703 620500

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## The Customer's Choice

by David Ford  
Aquarist  
Advisory Service

### Why Did You Buy that Fish? Part II

This is a record of visits to aquatic stores to interview buyers of ornamental fishes to find out why and what they bought. Was the fish purchase impulse? Had the aquarist already decided what they wanted and searched for fishes, refusing any other?

These were the kind of questions I thought would be revealing in a survey but the answers were not always as simple as the questions! As usual, everyone had a story to tell and the fishes chosen were always part of some other complex situation.

### The Life of Brian

The UK's largest aquarium retailer seemed the obvious choice for the next part of this assignment; BAS or Britain's Aquatic Superstore (also known as Dave's Aquarium) is to be found at Bolton, in Lancashire. The huge converted stone Mill has 600 display aquariums, some very large with Coral Reef aquaria with dozens of invertebrates. One large tank even contains a shoal of Redtailed Catfishes! There are indoor ponds with a huge pedigree Koi. There is also a vast dry goods area and a pet centre, with live pets ranging from snakes to Gerbils.

I found Mrs. Barnett, from Bromley Cross, wandering up and down with her 2 children (Paul and Lucy), looking at a list in her hand. It was a list of fish drawn up by her husband, Phillip who was working, for her to collect! (That is what I call trust!) The list consisted of 4 Clown Loaches, 4 Dwarf Gouramies, 4 Thick Lips and 4 Honey Gouramies.

I pointed out that the loaches were not the easiest of fishes to keep and 12 Gouramies were quite a large number. Mrs. Barnett explained that they had recently moved into a new house and decided on a new aquarium too. They

had kept tropicals in the old house so they knew about choices and stocking levels. The Gourami list was actually 'Dwarf' or 'Thick Lips' or 'Honey' according to what BAS had in stock, so only 8 fish were bought with more to be purchased later, to avoid 'New Tank Syndrome'.

Mrs. Barnett and the children found all the fishes after touring the display, but they did not choose the individual specimens, preferring to leave the choice to the assistant after giving him the list. They did, however, decide to select Dwarf Gouramies, because the pairs on display were so colourful and, as I agreed, the small size would be better for the stocking level of a new aquarium.

The Clown Loaches were double bagged and oxygen filled before packing; although it was not too far to Bramley Cross certain fishes, like Clown Loaches, can be poor travellers, often four loaches was approved too as these fishes like to be in small shoals.

### Buy the book

Mr. Lowe of Cheadle Hulme nr Manchester, turned out to be an experienced aquarist and had just called-in to Dave's Aquarium for a reference book on breeding. Before visiting the book section he had wandered along the display of fishes when he spotted some good adult 'Kribensis'. Mr. Lowe had a breeding pair of these African Dwarf Cichlids which had produced many good families over the past year, but the female suddenly died. The adults were of similar size to the remaining male, so he decided to purchase a female to make a new pair.

After bagging and paying for the fish, Mr. Lowe went off to browse through the reference books. Cheadle Hulme is not far from Bolton so the polybag was not oxygen blown, but the fish was wrapped in an outer paper bag for darkness.

I do approve of Mr. Lowe purchasing the female Kribensis, but not just for the breeding plans. If one partner of a true pair of fishes dies, the remaining fish can pine and may well develop stress diseases. Getting a replacement fish as soon as possible was wise.

## Customer's Choice

(continued)

### Fish and chips

Mr. & Mrs. Scamlon live nearby to BAS and told me they often pop-in to the Superstore for a browse and a meal (the Aquarium Cafe is on site selling all-day hot food and snacks). On this particular day they had called with their son Graham because the show tank at home needed some new fish.

The Scamlons probably made a good decision. Neons do look better in shoals, and half a dozen is the minimum for a group. Also, Neon Tetras are poor travellers, especially when young so choosing adults was wise. The major problem with Neons is the so called 'Neon Tetra disease', caused by a parasitic protozoan that forms spores under the skin giving the 'washed out' appearance of the disease. The female can carry these protozoans in her sex organs and so infect fry as the eggs are laid. If the fry are going to develop the disease it will appear when about 12mm in size, thereafter they either do not carry the protozoa or are immune carriers. Another good reason for buying adult or almost adult Neons.

### A Guppy Fancier

I then came across Marshall Brown of Macclesfield who turned out to be an experienced aquarist and a regular visitor. He owns a 6' tank which is a well-stocked tropical community aquarium. Marshall had decided there was room for some more Livebearers and had decided on Guppies, particularly some Red Cobra variety because he liked the colour pattern of the tails.

He then asked an assistant for 24! When you have a big tank you can buy lots of fishes. I was surprised to see Mr. Brown choose 24 males, but he explained that his aquarium already stocked quite a few Guppies, including females. The male Guppy can be quite a Peacock, but just like the bird, they will not show their best colours without a female to display to.

### Fish friends

Adrian Hopwood and Simon Lee, from

Lancaster, are friends and both are keen aquarists. They had motored down from Lancaster to Bolton to start a day's outing for aquarium fish buying. After visiting BAS they will call at every aquarium store all the way back to Lancaster.

Simon is a cichlidophile, especially *Geophagus* species. Currently he also owns a pair of Jewel Cichlids *Hemichromis bimaculatus*, which do not seem to want to breed and on the tour he hoped to find a new male or female to form a more fruitful pair.

He did not find a Jewel of suitable size but did spot some fishes he decided to own ... Chinese Banded Sharks. This impulse was because they were new to him and were obviously bottom feeding fish, a type absent from his home aquarium. The Banded Sharks were new to me too. I think they are rarely seen in the trade.

Adrian Opwood owns a display tank, as well as breeding and species aquaria. This tank has a slow-flow undergravel filter system and he was looking for some fishes that would help stir the gravel to improve filter efficiency. He chose Zig-Zag Eels *Macrogathus circumcinctus*. These 'spiny eels' from Asia live in mud and spend most of their day buried, venturing forth at night to sift the mud for worms. Adrian would have seemed to have made a good choice for gravel stirring fishes providing the substratum was not too packed. The eels are also shy fishes and will not harm the other community species. I suggested adding half plant pots or plastic pipe so the Eels can make them hideaways. These fishes rely more on smell than sight and so should be happy to sit in the pipe with their head out 'sniffing' the water, making them at least visible during the daytime.

Then Simon noticed the poster in BAS listing unusual Cichlids that could be obtained to order. No less than 60 were listed and the customer chooses the fish, leaves a deposit and a phone number and the staff ring when the species arrives. I left Simon drawing-up the list of every fish he had ever wanted to own.

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**Customer's Choice**

**Angels and Mr. Evans**

Mr. Evans, another local aquarist, keeps fish as a living decoration. He told me he was not interested in breeding the fish or building a fish-house or studying special fishes. He just owns a 36" tank built-in to his furniture as part of the room decoration. The aquarium, according to Mr. Evans, is well established and is about half stocked with an assortment of community tropicals. He found the time (between business trips) to call in at BAS to buy some more fishes and he announced "they must be decorative".

Wandering around the display he looked at some Angel fishes which carried a notice that they were English bred. "That must be an advantage, they must be less travel stressed and disease free, which is important when you are adding fish to an established group", he commented.

The fishes were a reasonable size for local bred fish, they are sometimes sold too young, at 2". However, more important for Mr. Evans, their colour patterns were ideal — Gold and Marble and all with well-formed long fins. Mr. Evans chose 3 of each and dashed off to install them before business resumed.

**Next customer, please**

Mr. & Mrs. Reynolds and their three children had travelled from their home in Wigan to choose new fishes for the family aquarium. Since theirs was an aquarium owned and maintained by all the family, Mr. Reynolds felt it was important all of them should choose the fishes.

The Reynolds own a big aquarium (48") and they have been buying additional tropical community fish over several months. On this occasion,

(continued)

Mr. Reynolds explained that they were looking for about a dozen fish with good colour variation. The final choice became Angels and Black Widows.

That would not have been my choice for colour but certainly the Black Widows emphasised the silver of the Angels. Perhaps reds and blues already existed in the Reynolds' aquarium.

**Ghost fishes**

I said goodbye to the Reynolds family and immediately discovered Mr. & Mrs. David Wolstenholme, a retired couple from Horwich. With time to spare they could shop together and spend time studying their pet fish. They chose traditional community tropicals, three each of Neon Tetras, Black Mollies and Guppies.

I could not resist pointing out that their choice of Black Mollies was not altogether wise, as these fishes are really a brackish water species and, although a little salt could be added to the tank for both the Mollies and the Guppies, the Neons would not take kindly to this change in chemistry.

The Wolstenholmes said they were pleased to have someone to talk to about their aquarium problems. They own a small tank (10 gallons) with a few Neons and Guppies and they had come to BAS to replace lost fishes. The losses occurred overnight with one or two fish disappearing completely.

I told them that it was probably a typical predatory problem but they assured me that only Neons and Guppies were stocked in their aquarium. Carcasses can be eaten and the bones dispersed, I countered, especially in undergravel filter systems.

No, partial water changes were used to clean the tank, they replied, and they had searched carefully for a dead fish or bones through the gravel and under every stone decoration. Fish jump out and can wriggle under carpets etc., I suggested. No, they had moved furniture, lifted carpets. How about theft, I wondered. Yes, they said, that was their suspicion, but since they lived alone they wondered if they had a ghost!



Marshall Brown of Macclesfield and I examine his purchase of Red Cobra Guppies.

The Chinese Banded Sharks that attracted Simon Lee of Lancaster



Britain's Aquatic Superstore



Here I am making notes of Simon Lee's choice of fish at BAS.



One of the many aisles of display aquaria (all are 48") in BAS.



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## A Century of Fishkeeping?

On the Golden Mile at Blackpool back in the 1800's, Dr. Cocker opened his Aquarium and Menagerie to the public. A few years later it was decided to build a tower to rival the one newly opened in Paris, and the site was Dr. Cocker's Aquarium. The famous Blackpool Tower was built and opened May 14th 1894, and the original Aquarium has been under the Tower ever since.

So there will be great celebration this year to commemorate the Tower's centenary, it will be painted gold and there will be celebrations every month of the year, but especially the weekend of May 14th.

The month of May has been designated a Fish Festival with lectures for Aquatic Clubs, photographic displays of the Aquarium through its 100 year history, behind the scenes tours of the Aquarium and the adjacent Sealife Centre (aquarists are really spoilt for choice in Blackpool!).

One of the special attractions of the Tower Aquarium is that while you are admiring the fish and their famous turtles, the family can be sent off to the rest of the Tower World, with its seven levels of entertainment. These range from a Circus to Ballroom dancing (with the famous Tower Wurlitzer), from Dinosaur displays to Bug World. Not to mention trips to the top of the (then) golden tower.

Aquarian and Tower authorities are sponsoring the displays and offering this invitation to all Fish Clubs to attend two lectures in the Festival. The first one is on Friday 6th May '94 by Dr. David Ford on 'Aquaria around the World' and on Friday 20th May '94 by David Sands on 'The Aquarian Expedition to the

### Aquarists' Lectures at the Golden Mile in Blackpool

**Amazon**. Both are at 7pm, after the main Tower exhibitions close and will include a tour behind the scenes of the 100 Tower Aquarium. Entrance is FREE and there will be gifts of tickets for other Blackpool shows if you wish to stay on in the resort. Each lecture is limited to 200 Club people, adults and teenagers (not suitable for young children), so FIRST COME FIRST SERVED.

Club Secretaries should write (now!) with definite bookings and numbers attending to:

Dr. David Ford, Aquarian, PO Box 67, Elland, W.Yorks HX5 0SJ.

#### TRADE NEWS

Was Your New Aquarium a New Year's disappointment?

A new aquarium for Christmas and New Tank Syndrome in the New Year might well put people off the hobby for good. INTERPET has accordingly launched their 'New Aquarium Care Kit' to help such disasters occurring both with new tanks and problems associated with major water changes.

Similar to their New Pond Care Kit, the **Aquarium Care Kit** contains Fresh Start (removes Chlorine and coats fishes' skin and gill membranes with a protective colloid), Trizyme (quick start bacterial culture to mature filtration systems), long-life pH and Nitrite Test Kits (to monitor water quality) and a simple-to-follow guide on how to set-up, establish and maintain an aquarium over the first two critical weeks. Although available separately, the components when bought as a 'package' represent a saving of £11.27 — a convenient kit of all you need in one purchase. Details from:

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# Even experienced FISHKEEPERS have problems



## FISHKEEPING ANSWERS

MAGAZINE

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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## QUESTIONS ON FISHKEEPING?

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