

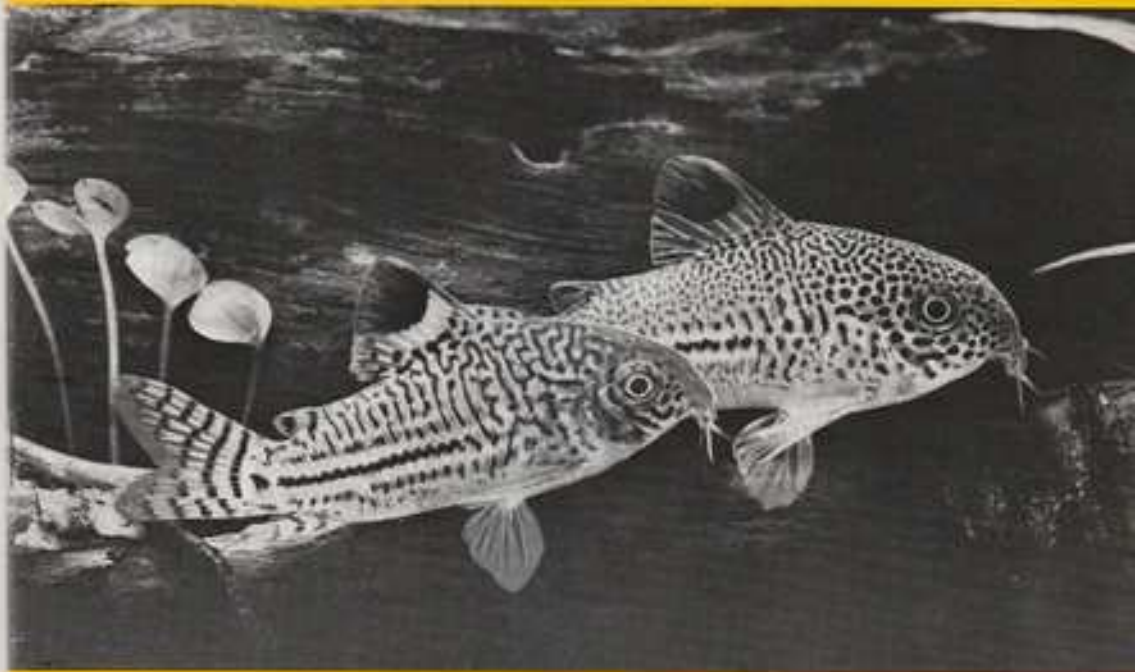
NOVEMBER 1972

20p

Pet Fish

monthly

The PRACTICAL FISHKEEPING MAGAZINE



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PetFish

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Comments and Quotes

- After-sales losses of fish
- Marinists need water plants

Placing the Blame

IF you buy a new radio, watch or car the one happening assumed to be most unlikely by both seller and buyer is complete and final failure of the purchased goods a few days later. Most people who buy aquarium fishes do not have quite the same degree of carelessness about 'serviceability' after purchase, but how aggrieved has one a right to be when newly acquired fishes die?

Occasionally the odd person is met who does seem very wrathful at any loss he sustains. From time to time we are contacted by such an irate aquarist who writes or telephones in the obvious expectation that *petra* will in a flash be able to see how unjustly he has been treated by his supplier and obtain immediate restitution for him. Sometimes the wrathful one has not even mentioned what has happened to the dealer concerned! Unfortunately the chain of events involved in these episodes is never simple and our advice is always for the 'injured' party first to discuss the matter, without anger, with the dealer. The dealer has yet to be born who will take kindly to an indignant customer who is accusing him of knowingly selling dying fishes!

Most dealers acknowledge that fishes, small ones in particular, may occasionally be injured, without anyone being aware of it, in netting and transfer to plastic bag or jar. But dealers also know that their customers sometimes do extraordinary things with their packages after leaving the shop and either before or during the transfer of the fish to their own tanks. More often than not the customer is given the benefit of any doubt the dealer may harbour.

Oddly enough the accounts of fish losses that do cause us to feel vicarious anger towards the dealer are the ones from those beginners who worriedly accept responsibility for dying fish on the grounds that their own inexperience is to blame when, in fact, it is clear from their

letters that the continued purchase of diseased stock is the cause of their difficulties. In such instances the dealer must certainly be aware of the trouble because of the deaths that will be occurring in his shop tanks and quite clearly he should not be allowing the state of affairs to continue.

Fish diseases and parasites being as numerous as they are and control of them being as yet imperfect there is no doubt that even the best run establishment with the most conscientious management will occasionally unwittingly be selling infected stock. This is a fact of life we all have to live with and there has to be tolerant understanding of these problems by both customer and seller.

Growing Greenery

OLDSTERS in freshwater aquarists keeping who, perhaps without being tempted to 'go marine', have looked into current seawater fish-keeping procedures and theories will see in these some aspects to widen interests in their own tanks. The mariner's preoccupation with the content of certain nitrogen-containing compounds in his aquarium seawater is in part a consequence of his inability to maintain lush growths of marine vegetation. The well-planned freshwater aquarium (with plants really flourishing) can support a large fish population without aeration or filtration and its owner need never think or even know about ammonia, nitrites and nitrates. Nitrogen wastes are certainly produced within such a tank but they are, of course, sheer gravy for the plants. What the mariner needs is not only a chemical that will let him keep marine and freshwater fishes together but one that will let him have some thickets of *vallisneria* with his clowns, tangs and damselfish. Then three-quarters of his worries would be over.



PETFISH
MONTHLY

LETTERS

Your comments and views on all topics of interest to aquarists are welcomed. Address letters to PFM Letters, 554 Garratt Lane, London SW17 0NY

For and Against the Beetles

I READ, with some concern, a letter in your 'Readers' Queries Answered' column (PFM, September 1972) entitled 'Beetle Invasion', in which a reader constructed a garden pool—much to the delight of the local water beetle population. Unfortunately their take-over bid was not appreciated by the pond owner, who proceeded to slaughter them left, right and centre. I appreciate the gentleman's concern for his fish fry, for the $\frac{1}{2}$ – $\frac{1}{4}$ in. beetles he mentions are probably *Ilybius* and *Agabus* species, all of which are predatory along with their larvae. On the other hand, it must be realised that the natural environment of these creatures is steadily being reduced as a result of land development for housing estates etc. throughout the country; consequently insects that were once very common are becoming scarce. Destroying unwanted visitors to the garden pond does not help matters, so I suggest that the gentleman who is so concerned for the well-being of his koi and fantails should use a little discretion and transport his captives alive to the nearest country pond and release them.

The great diving beetle was mentioned. I certainly agree that this species could not be confused with the beetles described in the letter, its length being about 1 inch and, as in all insects, it is only the larvae that grows. After going through the pupal stage the insect becomes an adult. There is no further growth or development, consequently one couldn't have a 'baby dytiscus' beetle of $\frac{1}{4}$ inch length.

Our correspondent has quite a problem but he will never eradicate it, however much he tries. With a larger pond, which is thickly planted, he will win through in the end. The beetles and their larvae will have a small percentage of the fish fry but at the same time there should be quite an abundance of young nishiki koi and fantails if the conditions are right. One thing is certain though—beetles such as *Agabus* are Nature's own dustmen. Anything that is weak or dies is speedily dispatched.

Widley, nr. Portsmouth, Hants.

V. B. HUNT

Akvariet's Day 1972

AS you probably know, TIDSKRIFTEN AKVARIET is the oldest aquarium magazine in the world still being published with no interruption. Its 45th



Mr van den Nieuwenhuizen (centre) receiving his 'Oscar' trophy in Sweden this year (see letter 'Akvariet's Day 1972')

anniversary was celebrated on 23rd–24th September in Gothenburg and on that occasion the man who started the magazine 45 years ago, Mr Edvin Brorsson, Malmö, delivered the Oscar trophy for 1971 to the famous Arend van den Nieuwenhuizen from Holland. On the enclosed photo Mr van den Nieuwenhuizen is standing in the middle of the picture and Mr Brorsson to the right. The gentleman to the left is Mr Finn Morbech from Oslo, Norway, who got the Oscar 1969. For 5 years running this trophy has been awarded to a famous pet fish hobbyist at the yearly celebration 'Akvariet's Day'.

Göteborg, Sweden

GUNNAR LUNDIN

Editor, TIDSKRIFTEN AKVARIET

Angry Breeders

I FEEL I must reply in connection with the correspondence on 'Angry Breeders' (PFM, July and September) as I am the person who owned the discus being mentioned. When the result of that class had been judged, I went to the steward and told him I thought the judging was bad all through the Show. I debatched my fish and went home. Nothing else was said by me and I understand that the trouble started after I had left.

It does not bother me to be beaten by better fish.

Continued on page 325

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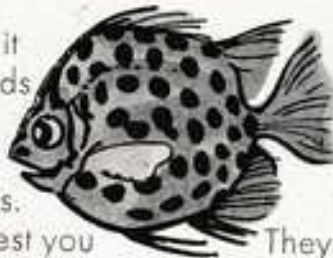
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LETTERS

continued from page 218

The zebras that won were stated to be 3 months old; the females of the six were about 1½ in. in size and full of spawn. As anyone knows, the only fish that can be grown to spawn inside 3 months are killifish.

As for the 'Halifax Aquarist' (who must be a top discus expert!), I have been breeding discus for 5 years and to grow the fish to 2½ in. in 12 months is good going. The fish in that Show had won best-in-show at York with 88 points and have never been beaten this year in 14 shows.

Fleetwood, Lancs.

RON DYSON

A Truly Unique Society

ELEVEN members of the Castleford & District Aquarists Society were invited by the Unique Aquarists' Society, Wakefield Prison, to look around their fish house. This was arranged by Mr Challenger, the Chief Officer, and Mr Jennings, the Principal Officer. I must say we all enjoyed the outing and the time passed all too quickly. One of the inmates said how much they appreciated our visit as it gave them the opportunity to talk to other aquarists and perhaps learn a bit more about the hobby.

I felt that we could have learnt quite a lot from them if only we had had more time. There are ten members of the Unique Society. They have eight show tanks and approximately 50 tanks in the fish house. Their 3-D backgrounds, made from papier mâché and polystyrene, were beautiful to see—and the fish! They have bred lace gouramis, tiger barbs, fighters etc.; but most impressive were the young oscars (the parents of these were about 20 months old and in lovely condition), the catfish *C. paleatus*, and the young of the beautiful Lake Malawi cichlid *P. auratus*.

They read PFM regularly. Both Mr Challenger and Mr Jennings give a lot of their spare time to help this Society. In fact, they are now helping to plan an Invitation Show to be held at Wakefield Prison in November and I can assure you that the Castleford & District Society members are really looking forward to this show.

Castleford & DAS

MRS M. GATES

Idol Worship

MAY I, through the pages of your Journal, proffer congratulations to Mr Roy Pinks for yet another excellent article in his series on marines. In 'Butterflies of the Reefs', however, I feel one point should be clarified. He states that it is 'wastefully foolish' to keep the Moorish idol as it is a 'quite impossible fish'. I had understood throughout this series of articles that Mr Pinks was to describe his experiences with marines. If this is the case may I ask if he has ever kept this fish or was this information gleaned from the pages of the vast amount of misleading information published on marine fishkeeping?

I fear the latter, and if so may I suggest that he attempts to keep one—he may be agreeably surprised! Its secrets are not quite as deeply hidden as he seems to believe.

Basically any aquarium containing healthy butterflies is capable of supporting this fish. Feeding, I have found, to be quite simple; within hours of being installed in the aquarium each of the five fish I have kept has fed on dried food (Phillips Flake) and within 7-10 days has fed very heavily on fresh mussel and chopped shrimp. In case Mr Pinks' reaction to this letter is that I must have been very lucky in purchasing these fish from a very good dealer, or be extremely good at spotting a good healthy fish, let me dispel this at this stage; three of the five fish were purchased 'blind' and the remaining two after only a cursory glance. None of the fish had been quarantined prior to purchase and as far as I know all had just arrived in the country when purchased. They were not purchased at one time, the acquisition being over a period of a year.

Coodpoth, Wrexham

R. M. HOBBLEY

ROY PINKS replies: *Every fish on which I commented as a performer actually took part, but the Moorish idol was not one such. My remarks about it were derived in part from the known experiences of other aquarists, in part from the often misleading literature on the subject, and in part from some notes I received at the time from a friend in the Far East who had ready access to local specimens. I should like to know how long Mr Hobbley's fish lived, amongst other things, and I shall be writing to him to take advantage of his kind offer of information. On all the evidence I have, though, the Moorish idol is not a beginner's fish.*

TROPICAL MARINE PROJECT—10

Selecting for BODY SHAPE

By ROY PINKS

DESPITE their glorious and often startling colouring, which can change with the passing of a mood, tropical marines can present a less than convincing picture if full advantage is not taken of the wide range of differing body shapes usually available. It is all very well to build up a community of creatures that look like fish, but as it is possible, without too much outlay, to display fishes looking like leaves, cows or boxes, the temptation is well-nigh irresistible to any right-minded aquarist. Or so I am led to believe!

I have already mentioned the rainbow wrasse (*Pseudocaris bi vittatus*), which seems to appeal to everyone else but me on account of its struggling method of locomotion. Its colours are not as its name suggests, and its incessant busy-ness can prove rather irritating, especially as it all seems so pointless. It has a prodigious appetite and will grab bits far too big for it, hustle away with them, bang them against a convenient piece of coral until they either slip into its mouth or drop into a nearby cranny to rot gently away; and then it swims back for more. Possibly, endless excursions cause it to rediscover some of these treasures, but whether they get disposed of is another matter. I think they do, and that this somehow justifies the inclusion of this fish.

Cleaner Fishes

The beginner will find the wrasse hardly enough, but I am not sure that I would recommend it wholeheartedly when, for instance, there is the cleaner wrasse (*Labroides dimidiatus*) as such a near rival. The body shape is similar—torpedo-like, and the colour (several blues, green at times, on a bold black bar) is one of the most lustrous things you will ever get in your tank. Admittedly the rainbow wrasse has some reddish brown in him, but it is altogether more sombre, and does not possess the cleaning proclivity of its rival. It may score in terms of adaptability because the cleaner wrasse is said to be intolerant of water changes, especially of transfer into a nitrite-ridden environment, so therefore some thought has to be given to the purchase of this latter species. Best to defer until about 3 months or more after setting up, and the

longer the better. Mine has behaved very well and has never given a moment's anxiety. It feeds copiously on a variety of foods and gets on well with its companions, with perhaps less conscientiousness in its cleaning rôle than I would have considered to be reasonable. Perhaps I have a lazy fish, but I don't much mind as it is such a beautiful creature.

On the subject of cleaning, the tiny neon goby, which resembles a miniature cleaner wrasse, should certainly be considered for early inclusion in any marine community. This truly goes about its business in style, but the technique differs from that of the wrasse. The latter hangs in mid-water and tentatively picks away at its host before settling down to the job in hand; the goby spends much of its time on the tank bottom or on a coral fragment and the hosts literally queue up for its services and often lie on their sides as though inviting it to come aboard. Tantalisingly, and I often think it is the female goby that does it—there is a tendency for this audacious splinter to wait until the customer is well and truly prostrate, whereupon it flits away merrily to some distant spot to ponder on the follies of bigger fish.

It is a very great pity indeed that neon gobys are so quarrelsome (literally, they seem incompatible with one another in small tanks), for if their nature were otherwise there would be a heavy temptation to include at least half a dozen. I am able to state that their food requirements are modest and they are not in the least finicky, excepting when they are ill. I have had them with both white spot and oodinium, but the copper sulphate remedy restored them to good health. They are not, by all accounts, particularly long-lived fish, but perhaps this is because fully grown fish are usually imported, so that much of their natural span has already passed. A point which interests me about the activities of the cleaners is precisely how they appear to keep disease down without spreading it. Perhaps they do a bit of each.

Moving away from the torpedo-shaped fishes, I should perhaps mention one more or less conventionally shaped species which yet looks something of a curiosity on account of its colour and strange habits. I refer to the wreckfish (*Anthias squamipinnis*), which is somewhat perch-like,

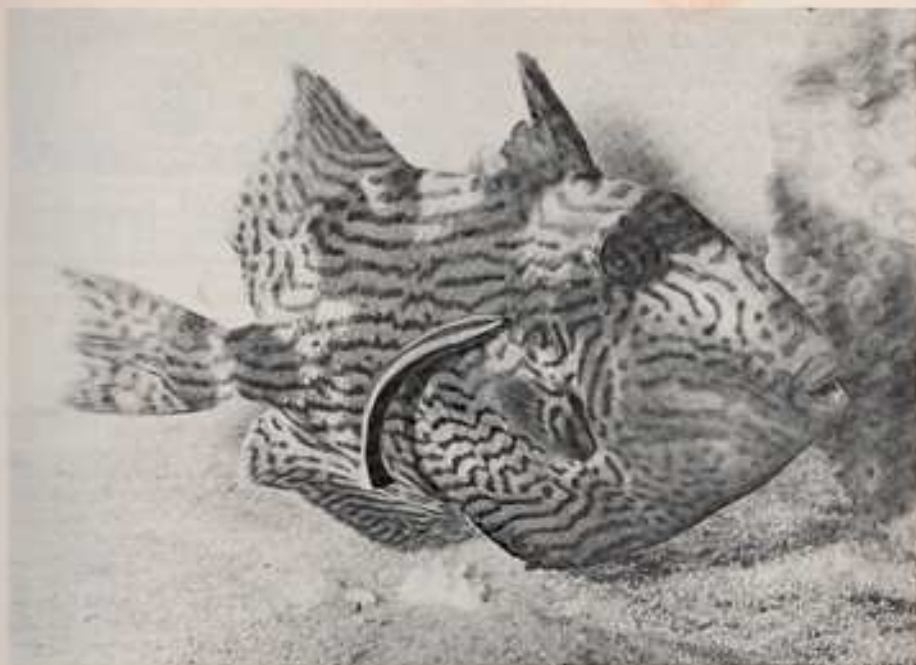


Photo: Maccusa

A cleaner wrasse (*Labroides dimidiatus*) gets to work on a blue-striped trigger fish (*Pseudobalistes fuscus*).

growing pink, with a motion sometimes snaky, sometimes uncertain and wavering, sometimes like a shot from a gun. These are truly astonishing creatures and when I first saw them in Mr Stray's stock tank I joined him in speculating about whether they would survive for longer than a day or so. We agreed, without too much optimism, that they could not last for more than a week. They swim around as though their navigational system had somehow got programmed with something else; from a more or less straight course one would suddenly twist around in the water, change from pink to nearly white, blush furiously in the tail, and then resume an erratic path, turning several shades deeper than it had been when it started. Then one would sink to the gravel and stretch out as though completely exhausted, and only its enquiring and not unintelligent eye would indicate that it still had an interest in life.

The whole odd pageant held us fascinated until we began to recognise that there was, perhaps, some overall pattern running through this odd display. As the contortions were performed and performed again, like some kind of purified underwater pup festival, the notion emerged that all was

not what it seemed. A week later the ballet was still being enacted, albeit without some of the leading performers, who had meanwhile joined the corps of other local fanciers. I decided that although here was a fish that I would probably never really take to (its mouth was too large by far!), *PRM* readers had a right to know more about it. Noble to the end therefore I parted with the modest sum of £2.50 and introduced what I was convinced would be trouble to my large tank.

Wreckfish

Graham Cox warns us in his book that *Anthias* spp. can be exceedingly tedious over initial feeding, and this nearly put me off taking the plunge. It so happened that the specimen accepted white worm within a few minutes of entering the tank and has never looked back. It has consumed vast quantities of whatever I have offered it, and greatly to its credit it has never made an offensive overture with that cavernous mouth, which all our experience told us boded the worst. Its antics have been much less eccentric than when it was in the company of its kind, but it lollops around in a most engaging way and I must admit to having become quite attached

to it. Its colours are absolutely glorious, being matched only by what I believe to be a near relative, which has a much more purplish fluorescent sort of sheen overlying the basic pink. The latter has an undershot lower jaw, whereas in the species I have the jaw arrangement is the other way round.

I was a bit worried that this hungry-looking character would rapidly outgrow the tank and would leave behind a trail of wreckage of some sort, but his size has remained more or less as it was at purchase and, as for habits, its sole weakness is to lie doggo in the top of the clam shell with its head sticking out. Such terrible vices are tolerable under my rules, and so far as I am aware there are no others. It seems likely that the odd gyrations which accompanied our initial acquaintance with the wreckfish were attributable to a form of sex display, and it would have been interesting to have left the company undisturbed for a week or so. The situation seemed to have about it the promise which seldom attends the would-be breeder of tropical marines, and I would certainly consider this species as a 'possible' in this context for those with the facilities to devote to this particular field of research. There could certainly be few more attractive subjects. This is probably not a fish to be used as a starter, because of its unpredictable attitude to food, so the beginner should only consider introducing it to a demonstrably seasoned tank.

Many novices become attracted, at the stage at which they begin to ponder over the more outlandish fish shapes, to the scorpion fish, and certainly the several forms in which it and its relations come make it an immediate hit. Its delicate, almost unbelievable red and pink hues with blacks and blues and dots all interspersed are combined with an oddity of form and locomotion which are virtually irresistible. Yet I decided against one for my community. Its poisonous dorsal spines are no joke at all if human or aquatic victim impinge upon them. Further, these fish grow to larger sizes than I would want and they take some feeding. I take the point, which many enthusiasts may make, that this can be a community fish. It is a qualified contender, however, and I feel that I can do without it whilst there are ever so many others with more pressing claims. The real advantage it has over the others in the group of interesting shapes is its comparatively modest price, which can be in the £4-£6 range. Others like the cowfish and the boxfish can cost a lot more and not every specimen is as perfect as the scorpions can be, price for price.

Filefish

I therefore settled for a rather different sort of curiosity, and this was in the £3-£4 region—the filefish (*Oxywoscanthus longirostris*). This particular one is green and orange and has the strangest eye

you have ever seen. It hardly looks like an eye at all, simply a cartwheel-like disc of similar patterning to the body, and which fastens on you every so often to demonstrate its real purpose in life. The filefish are relations of the triggerfish and have similar dorsal and ventral anchoring spines, which enable them to tuck themselves safely into crevices that suit their fancy. The means of swimming are similar, too, and they seem to insinuate themselves through the water instead of swimming. Such a stately demeanour, coupled with a lamb-like personality, really gives them a head start as community fish though this is offset rather considerably by their unpredictability as feeders. Their size certainly swings one's preference back in their favour because they are said to remain quite small in captivity, and may never exceed 4-5 in. in 30-50 gallon tanks.

I managed to secure a filefish about 2½ in. long, whose sole contribution for about 3 days was to remain firmly wedged between a piece of coral and the side of the tank. Its eyes alone were mobile, but somewhat reproachfully, I thought. It finally broke its fast on brine shrimp, which it pecked at delicately with its beak-like mouth, but it took a week or so before it progressed to chopped white worm. I was really feeling pleased with myself when it accepted finely chopped cooked spinach and finally dried food from the surface of the water. It looked to have settled in splendidly but suddenly died. I will enlarge on this somewhat, at a later stage, but its regrettably rapid demise should not be taken out of context.

I shall try again with this species, using perhaps more than one, and I shall try also to secure rather fatter specimens than the one in question, because it habitually looked more skeleton-like than I care to see a fish. Yet such is their habit that it seems genuinely difficult to put the good into one bag and to leave the rest behind. Whatever went wrong, the filefish was a regular family favourite and we hope that the next one will fare very much better. Its reputation is such that it should stand the rigours of most small private collections, and with this background it seems as fair a bet as the average clown: difficult 'settlers' but most rewarding if this initial period can be weathered.

Individuality will always make these species look a bit less trustworthy than they really are, possibly because the failures will be reported and the successes will not. I suspect this is rather the way with marines, though. It is more than difficult for many who pronounce on the subject to be truly impersonal and objective. It all underlines the need, in this branch of the hobby, to weigh every forward move with care and to appraise the overall situation constantly as critically as you can.

To be continued



by
ARPEE

Personal COMMENT

AT one time the mere mention of artificial aquarium plants could be counted on to evoke the most scornful of laughter, if nothing worse. Not only was it repugnant to the enthusiast to include anything but natural material in his tanks, but it took much courage even to contemplate employing some of the ghastly creations which masqueraded as decorations. Many of them would have looked in place on the headgear of cavalymen of yesteryear while the remainder resolutely defied every effort to ascribe to them a purpose in life. Every so often the pet shops would sell them off at huge premiums, together with surplus rubber dog bones and badge mirrors, but even then they tended to languish.

Knowing my negative enthusiasm for such things one of my dealer friends wickedly confronted me in mixed company with a large showcase full of plastic plants just a week or so ago, and asked me how I felt about them. I was at the very least expected to erupt in some way, and there were even hopes that something actionable might come from the encounter with Inter-Pet's new range. My unexpected complete failure to conform to type was due entirely to the fact that at long last somebody has had the good sense as well as the good taste to take a long and careful look at Nature before producing yet another group of contenders for the 'artificial' market. What I saw was a highly diverse selection of plants, each attractively boxed in a transparent container bearing the name of the species. The colours were as near natural as I have ever seen, and the construction of each plant was most faithful. I particularly liked the juvenile plantlets in the 'valisneria' package, which were linked to the parent plants in the way familiar to all of us.

One may well ask what place have such things in the lives of the average aquarist, though perhaps the more difficult question to answer would be how to define the average aquarist. We are certainly of all types and of diverse interests and capabilities, so no single statement will cover us all. It will be more helpful to state just how this new generation of decoration will develop, as develop it will, for it is far too good not to catch on. The more experienced

aquarist will tend to resist, partly due to pure prejudice, and partly because it presents no test for his abilities as a grower. There are probably far more permanent members of the hobby who have remained adherents because of the element of perpetual challenge, than those who have found it a simple diversion. There will be numerous die-hards who will never be converted, but this group will probably comprise the very successful plant-growers who, almost miraculously, seem never to have problems.

I think one should remain as open-minded as possible about this sort of thing. There are plenty of situations in which it would seem to be perfectly legitimate to use artificial plants, and if they get even better than they are I shall certainly contemplate using them myself. We are all familiar with the tendency for one tank to fill itself with plant life whilst another, with similar characteristics—even precisely similar ones, so far as we can determine—will scarcely support duckweed. The drastic failure of this sort will normally call for a replant, but if the trouble persists there may now be some answer in the form of plastic substitutes. There are also those awkward places in normally well equipped aquaria where the plants never seem to thrive at all, such as in the areas surrounding airstone outlets, and in those dark corners behind rocks or similar features. I cannot think why, in such circumstances, the artificial should not supplement the natural, but I must admit that I would still shudder at the prospect of a totally artificial planting.

There is also that category of expensive or difficult plant life which defies the efforts of the most skilled, perhaps because the pH of the local water is quite wrong for the natural species. In these conditions it seems sensible to consider plastic substitutes if they look the part. An avenue of artificial Madagascar lace plants would possibly look just right where one struggling natural specimen would seem horrible, but let us hope that the manufacturers will in time develop specimens of varying size so that there may be greater resemblance to the natural way of things not to grow uniformly. The ability to develop groups of the rarer and more attractive species will certainly appeal to the aquarist who is striving for effect, but the greatest skill and ingenuity will be required to achieve the illusion that all is natural. It is perhaps amusing to note that people often remark, of a particularly fine specimen plant (e.g. *A. ulocarrus*), that 'it hardly looks natural', so those who intend taking liberties may often have a good start.

As for the beginner, I imagine the temptations are very great to invest in an all-plastic contrivance, which requires absolutely no upkeep. For those with only a marginal interest in their tanks this is no doubt a fairly sound approach because some of the disasters resulting from decaying plant life can be

circumvented or averted altogether. The facility of moving 'artificial' around quite freely without breaking bits off them every time they are touched is a further attractive feature of this concept, and any desired arrangement can be worked out quite regardless of light-sources or light-intensity. A further slight bonus is the complete frustration of snails, whose evil activities have often contributed significantly to the discomfiture of the beginner.

Quite what the effect is likely to be on the overall economy of a tank, I do not know, though I would hazard a guess that it is far less serious than many of the perfectionist naturalists would have us believe. Much would depend on the presence or otherwise of aeration and filtration, both of which would need to come into prominence in an all-plastic situation. From the general point of view of hygiene and well-being I very much doubt whether the natural plant life we set so much store by is of paramount significance, and as time goes on we shall have details of experiences of aquarists who have experimented with both sorts of system. Successful though these fine plants are, my own preference will remain with the real thing. For one thing I like to see plants grow, and even those that fail leave behind a mystery which one hopes to solve some day. I have no doubt but that educational institutions will welcome such as the Inter-Pet range because they are both unequivocal and nearly indestructible.

From the point of view of identification and classification, a collection would seem to be a good investment and a splendid way of familiarising students with a wide range of aquatic growth. Beyond that, like me, I think those whose interests lie in living things will want to pursue the matter very much further, whatever the temporary disappointments might turn out to be.



Some time ago I was faced with the problem familiar to most aquarists of how to get rid of algae in a tank containing small to medium sized tetras. I had tried most of the recommended dodges, short of chemical attack, which I absolutely reject at all times, and was fast losing faith in the ability of the so-called algae-removing fishes that are most commonly assigned to the task of window and plant cleaning. The most satisfactory of these, taken all in all, was the *Otocinclus*, both *affinis* and *arnoldi*, though the sum total of their efforts in terms of poundage of algae actually removed was miniscule. For all this I very much took to their queer habits and complete unobtrusiveness and think they are always worth a place in a small mixed collection. Mollies are often suggested as

algae removers, and, like platys and swordtails, can make some impact, but are notoriously temperamental as regards changes of water, as are the latter, to a lesser extent.

Readers of this column may recall that I therefore introduced a red-tailed black shark to the scene in the hope that it would succeed where the others had partly or totally failed to make the grade. At the time of recording this apparent act of un wisdom I heard my critics whispering that Arpee was at it again, simply inviting trouble. The whole manoeuvre was just designed to bring about total destruction in that particular tank, which would give me the opportunity of buying a whole lot of different fishes to write about. Such a cynical approach is, as it happens, quite uncalled for and un-necessary as unscheduled departures for the Great Beyond usually create all the vacancies I can cope with. The advent of the shark was, in any case, a risk that turned out to be fully justified, and although I fully expected some casualties from amongst the neons and some tiny rasboras I have suffered no losses whatever from bullying, and the even more remarkable thing is that there are no signs of injury on any of the small fishes.

This is not to say that peace has reigned uninterrupted: indeed, life has never been quite as eventful. The shark sailed into its new surroundings and, after a calm survey of the possibilities, took up residence behind a solid piece of submerged tree trunk. Owing to reorganisation of the tank décor at odd times since then, this has gone through a sequence of changes of stance and location, but the shark has kept hold of its territory throughout, and this may have helped to keep it sweet-tempered. Many correspondents have testified to quite opposite tendencies on the part of this fish, and I am inclined to regard this sad fact as the norm rather than otherwise. In this particular case aggressiveness has been confined to regular and thorough sweeps throughout the length and breadth of the tank with the clear object of displaying power, which, mercifully, so far has been confined to these patrol activities. Strangely, they are not in any way objectionable to the viewer because they seem to lack any sort of real venom, and I cannot say that the smaller fishes look particularly terrified when they are brusquely edged away from their chosen paths. It could be truly said that at no time hitherto has the tank been so full of movement and interest. The vivid colouring of the shark contrasting with the flashing silver of the smaller fishes makes an appealing sight and is probably a truer representation of what normally takes place in a small stretch of water than

Continued on page 334

Is it New to You?

Photographs by CLIFF HARRISON

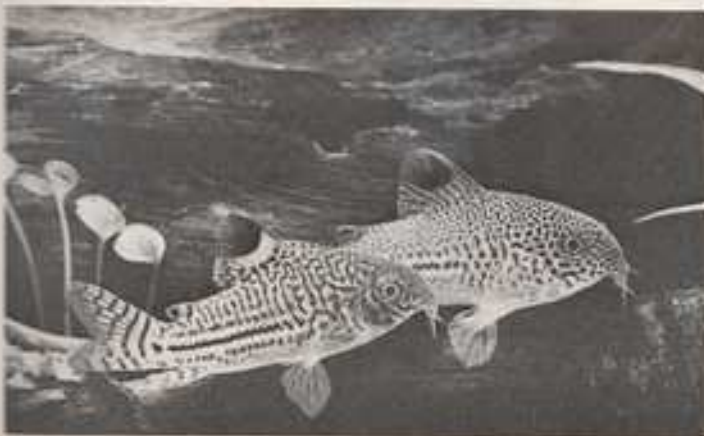


This delightful black and white catfish has been known by the popular names V-tail cat and skunk catfish. A South American species, it is believed to be *Sorubimichthys plerocaps*. Seen at Harrow Green Aquatics, London.

Another catfish of unusual appearance found amongst imports this summer, it has been referred to as the 'Yacunda catfish' but no certain identification has been assigned.



... and a Better-Known Favourite



Photograph by
B. KAHL

Connoisseurs of the *Corydoras* catfishes frequently place the leopard catfish (*Corydoras julii*) at the top of the list for attractive appearance. The front cover of FFM this month carries this excellent camera study of the 'Julies'. Recommended for community tanks.

A Comparison of Standards for

SINGLETAILED GOLDFISH

By M. D. CLUSE

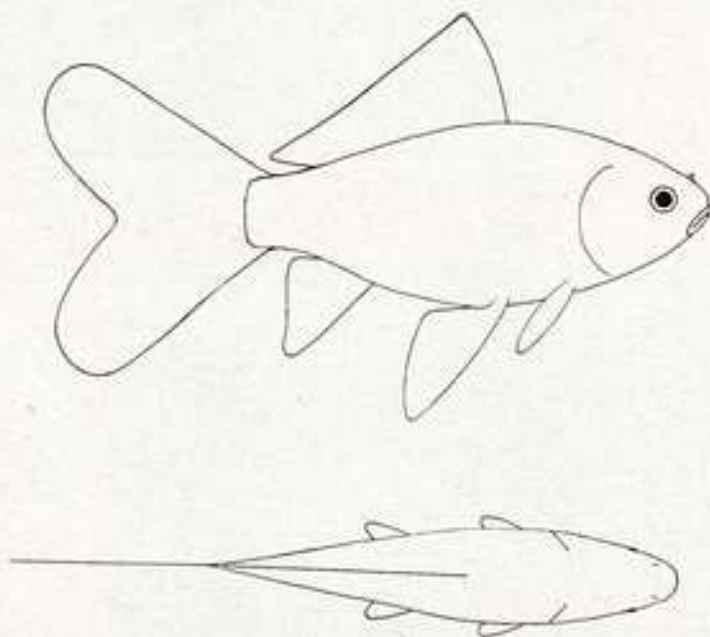
President, Goldfish Society of Great Britain

COLDWATER fishes exhibited for competition at aquarists' shows are judged on how close their shape is to that regarded as representing normality for a fish in good condition in its wild form.

The common goldfish is regarded as having the normal shape and proportions of the species *Carassius auratus*. The depth of the body is about two-fifths of the body length, not counting the caudal fin. The dorsal lobe of the tail fin is about one-third of the body length. The shape of the tail fin lobes is neither very rounded nor very pointed.

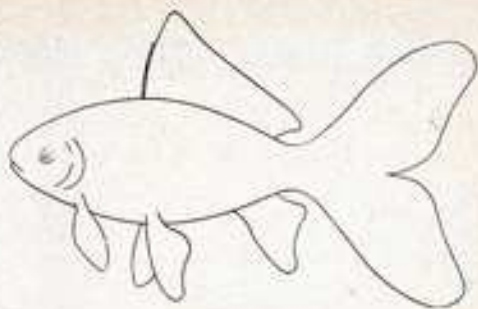
Any fancy variety of singletailed goldfish must incorporate one or more characteristics that demonstrate obvious mutations from the 'normal' common goldfish or wild-type shape.

When we consider the comet variety it will be realised (a) that the body is slimmer than that of the common goldfish (GSGB Standard for the comet has a body depth of one-third of body length), (b) that the fins are pointed and the tail fin is deeply forked, and (c) that the fins are long and the upper lobe of the caudal fin can be equal in length to the body (see GSGB Standard). That



Outlines of the GSGB Bristol-type shubunkin (from the GSGB Standards Handbook by kind permission of the Society)

Right: outline of the original 'Bristol shubunkin', showing the overlarge tail that conflicts with modern concepts

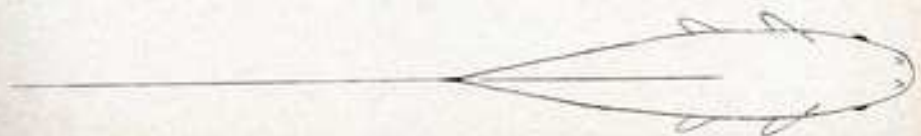
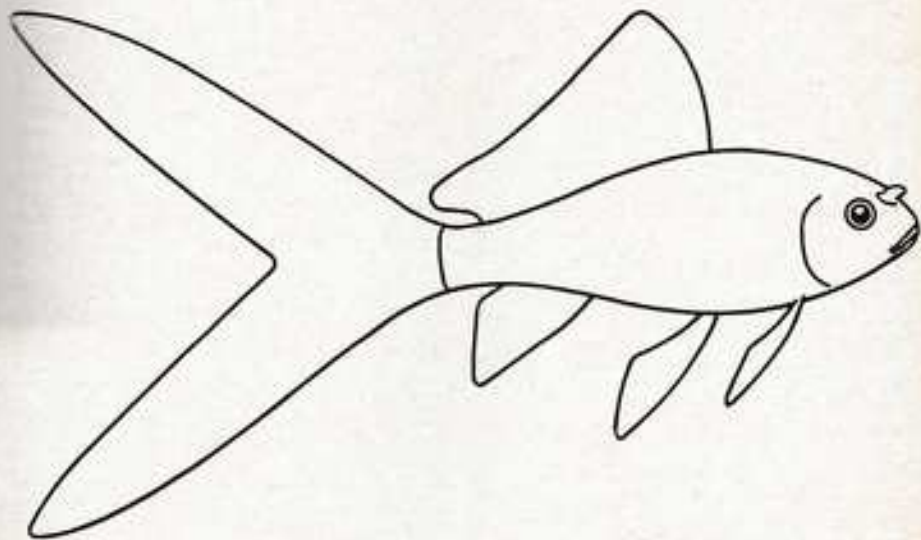


Below: outlines of the GSGB comet goldfish variety (from the GSGB Standard Handbook)

the fish can carry this long fin well-spread without drooping must be due to the narrowness of the lobes. Indeed they are pointed at the greatest distance from the caudal peduncle, which can be regarded as the fulcrum to which the supporting upper ray is fixed. The strongest downward pull is exerted at the point furthest from the fulcrum.

When considering the GSGB Bristol-type shubunkin, it will be seen that the body has

virtually the same proportions as the common goldfish. The lobes of the caudal fin are very rounded in contour compared with the common goldfish and even more so when compared with the comet. The ideal Bristol-type shubunkin should have a well spread caudal fin, which is not a draggletail. Because of the breadth of the lobes of the tail fin there is a large area to be supported by the upper ray of the fin. Therefore, this fin should not



be too long or it will droop. Also the fin should not be deeply forked or an obvious scissoring action will be observed. The ideal length according to the GSGB Standard is one-half of body length. Greater length and area of this fin is a good thing provided that it does not cause the tail to droop and therefore lose points under 'carriage of caudal fin'.

The comet and the GSGB Bristol-type shubunkin are therefore distinctly different fishes. If we have a look at the old Bristol shubunkin drawing, probably done before World War 2, it becomes apparent that it has several disadvantages in comparison with modern concepts. The tail fin,

being overlong, and in conjunction with a deepish forking, rather encouraged the draggie-tail. Another difficulty was, and perhaps still is, that 'metallic' fish shaped similarly to the old drawing of the Bristol shubunkin were put on the market and indeed on the show bench as 'scaled comets'. Fortunately nowadays breeders of Bristol shubunkins seem to prefer fish with broader lobes. The GSGB does provide a niche for the fish of the metallic group by calling it the GSGB Bristol-type goldfish, and the GSGB Standards provide a drawing of the metallic comet, which is definitely different.

Personal Comment

continued from page 330

the ideally suited and placid communities we more usually attempt to build up.

The remaining fishes certainly look uncommonly fit—perhaps the unaccustomed exercise has both kept them out of danger of physical assault and given them an opportunity of avoiding surplus weight, which, in some fishes, noticeably imparts human characteristics with increasing age. This particular tank has some of my veteran fishes of 5 or more years' standing and they are showing no especial strain. Even a very large and ancient featherfin, which by rights should have died months ago, is being allowed to take his time, and this in itself is interesting in the light of the tendency of ailing fish to become the automatic victims of predatory species. The benevolence of the shark is in no way attributable to special diet or unusual treatment, as the inmates of this tank have been fed dried food only for quite a long period, as an experiment, and the results have been entirely acceptable.

As for the algae, well, it is still there, but we have been so fascinated with the movements of the fishes that we have barely noticed it. Much of our trouble is simply in the mind, after all.



Readers of this column in the September issue will recall my warning about the possibility of poisoned marines finding their way into this country because of dubious methods of collecting them, which include poisoning by sodium cyanide,

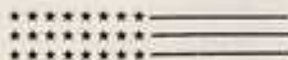
As the editorial note suggested, it is indeed quite amazing that a substance of such reputation could even be contemplated by the hunters, not least of all on account of its possible effect on their own well-being. However, we will, I hope, learn more when Mr Sankey has completed his researches.

Meanwhile I wrote to Mr Cotton of Kings Heath, Birmingham, whose comments will, I am sure, be most heartening to those who are concerned over the matter. He replied to the effect that he was most interested in Mr Sankey's observations, as for some time he had been noting "over-medication" in the course of his post-mortem studies. He goes on to say that his opinion was based on the presence of crystalline deposits, which should not have been there at all, in various organs. It appeared that the fishes had been medicated at source, and probably chemically sedated during transit. The possibility of chemicals being used in collection was one that he had not hitherto taken into account, but in the light of the information he now has he tells me that he will study the problem in greater depth. I have acknowledged his letter most gratefully on behalf of the very many marine aquarists who share Mr Cotton's views that marine fishkeeping should be approached responsibly and cautiously.

There is a great deal of fashionable faddism about it just now, and over-importation of rarities and 'impossibles'. If we have but a fair chance to eradicate such malpractices as poisoning we shall then have an equally fair chance to study the more common species and then perhaps proceed to more demanding creatures. I trust the day will never come when we discover that our desire for 'something different' has put the copperband butterflyfish into the dodo category. If, in the interests of conservation, aquarists are not content to settle for a tank of clowns and damsels, they are in my view unworthy of the name. With a little common-sense all round, no doubt the future will in the event prove rather happier.



TRANSATLANTIC TOPICS



By JIM KELLY

A TREASURE hunt of a new kind is suggested by Joe Lightcap, writing in 'Modern Aquaria', magazine of the Greater City Aquarist Society, New York, and like all good treasure trove it has a golden reward waiting for the discoverer—not the metal but the fish.

Nearly a century ago the Japanese Government sent a collection of ornamental goldfish to the Columbia World Fair in Chicago. By the end of the show the goldfish were in a sorry state, covered in fungus, so they were placed in the care of William P. Seal, notable fishkeeper of his time.

Under Seal's care the fishes flourished and when fully recovered he sold the best male to a Philadelphia dealer, who promptly

christened it the 'World Fair Fish' and used it to produce his famous strain of American veiltail goldfish. But where are the descendants of these fishes today?

An answer to that question has even suggested across the Atlantic in Britain. One thing is for certain, they no longer grace the aquaria under the Stars and Stripes.

Perhaps some goldfish fancier reading this can answer Mr Lightcap's question.



Coolie loaches might seem to be the last choice of fish to put in a furnished tank at a show, since they are so very difficult to net. But one lady aquarist finds no problem in

netting these fishes at the close of an exhibition.

With typical female cunning she places two or three pieces of large-diameter hosepipe on the bottom of the tank. Just as if they had been trained to do it the fishes swim to the darkness and security of the tubes where they are caught up.



Swimming in the sea not far from Miami Beach can be found a jewel of a marine fish, the neon goby, *Elaotinus oceanops*. Measuring a mere one and a half inches when fully grown, this fish is popular with marine hobbyists because of its colour, hardiness and willingness to spawn in the home tank. Gary V. Hammond, who collected some adult pairs of these fishes from the Florida coast, has had considerable success, the first pair depositing some 300 eggs on the undersides of sea-shells. To prepare them for paritubed he had fed them with brine shrimp nauplii and a marine fish flake food.

Summing up for those willing to try their hand at breeding the neon goby, Gary says that best results are

Meetings and Changes of Officers

ASSOCIATION OF YORKSHIRE AQUARIST SOCIETIES. See under YORKSHIRE ASSOCIATED AQUARIST SOCIETIES.

BRIGHTON & SOUTHERN AS. New members welcome. Please contact secretary, Mr S. M. Clarke, 84 Marlborough Drive, Burgess Hill, Sussex.

BELPER & DAS. New Society. Details from secretary, Mr G. Dean (1) Winger Close, Belper, Derby DE4 1HW or phone Mr H. Giverson, Belper 3777.

BETONAL GREEN AS. Chairman, Mr D. Bland; secretary, Mr D. Adams (at Watlington Street, Watlington, London, E.17); treasurer, Mr J. Hynes; show secretary, Mrs S. Hodges (190 Ashington Avenue, Seven Kings, Eford, Essex); secretary, Mr A. J. Bellack. New members and visitors welcome. Meetings every Tuesday, 7.45 p.m., Bethnal Green Battalion, 100 Bethnal Green Road, London, E.4.

BRITISH CICHLID ASSOCIATION. Membership secretary, Mr Philip N. Berry (112 Woodstock Road, Deybrook, Notts.).

BRITISH KILLIFISH ASSOCIATION. Section secretary (type and slide shows), Mr F. Bullock (High Cross, 11 Hill Street, Upper Green, St. Dunley, Warrington).

FREELANCE AC. Chairman, Mr J. Sharp (72 Richmond House, Lamb Street, London, SE11); vice-chairman, Mr J. Seaman; show secretary, Mr R. Burton (79 New Place Square, Brompton, London, SE 16).

GLOUCESTER AS. New Secretary, Mr Sidney E. Nutman, 79 Lorraine Drive, Longlevens, Gloucester.

KNOWLE & DAS. Chairman, Mr E. Newman; vice-chairman, Mr J. Stirling; secretary, Mr P. Randall; treasurer, Mr W. Perry; programme officer, Mr D. Owen; reporting secretary, Mrs E. Wicks (Carrus, Ardara Drive, Gandy, Bristol).

LEWISHAM & DAS. New Society. Chairman, Mr K. Wells; secretary, Mr A. Johnson (100 Hook Lane, Welling, Kent, DA16 2JW); Meetings every other Monday; temporary headquarters The Green Man, Broomley Road, Carlsbad.

NEW FOREST AS. Secretary, Mr B. Turner (6 Avonfield Avenue, Brooksburn, New Forest). Meetings Lyntonian Community Centre, third Monday of month, 7.45 p.m.

SOUTH PARK AQUATIC STUDY SOCIETY. New meeting date. Now the third Tuesday of month, St Mark's Hall, Compton Road, London, SW 19. Tel. 448.

SOUTHEND, LEIGH & DAS. Please note, Mr D. C. M. Doregan (77 Trinity Road, Southend-on-Sea, Essex) is the new open show secretary.

SWILLINGTON AS. President, Mr B. Hulop; vice-president, Mr D. Brad; secretary, Mr Roy Hulop (1 Fir Tree Gardens, Macclesfield, Cheshire, SK7 1JN); treasurer, Mr Ray Semmens; show secretary, Mr Paul Bernoldi; social secretary, Mrs Ann Hulop.

THETFORD AS. New Society. Please contact, Mr Percy D. Hunt (17 Broken Road, Thetford, Norfolk).

VILLAGE AS. New Society. Secretary, Mr S. A. Heap (166 Abbey Crescent, Hand Grove, Cheshire, SK7 1JN). Meetings every second Tuesday, Broadhall Village Club, Malhouse Road, Broadhall, Cheshire.

YORKSHIRE ASSOCIATED AQUARIST SOCIETIES (YAAS). New title of the Association of Yorkshire Aquarist Societies. Open to non-Yorkshire societies. Details from Mr E. Sneyd (110 Bradford Avenue, Greenfield, Hall, Yorks.).

obtained with one adult pair of fishes to a 10 gallon set-up. Encourage a rich growth of green algae in natural sea water and keep the surface of the aquarium broken continuously by a stream of fine air bubbles. Temperature should be around 26°C.

* * *

Fishkeepers serving in the U.S. Armed Forces in Vietnam have returned with new knowledge about the local flora and fauna. Even the ubiquitous *Vallisneria* have received a new boost thanks to the enthusiasm of these soldier aquarists, who have popularised a new species.

Named *V. asiatica miki*, this plant has leaves that grow from a narrow rootstock and twist around, like those of its sister *V. spiralis tortifolia*, but unlike the latter, the male blossom has only one stamen, surrounded by a ring of very fine hairs. It prefers hard, alkaline conditions with the temperature 72-78°F.

This plant does well when planted on its own. In the company of other varieties of plants it throws out fewer offshoots.

* * *

'What is the largest cichlid to be found in the States?'—Asking the question—no less a person than that piscatorial wizard, Jim K. Langhammer.

After tentatively suggesting *Cichlasoma friedrichthali*, *C. docii* and *C. managuense*, Jim puts forward a not too well-known species, *Cichlasoma trimaculatum*, and relates his own experiences with these fishes to prove the point.

He introduced some 3 to 4 in. long specimens of this fish into a 800 gallon, tropical rain forest exhibit at the Detroit Zoological Park.

This beautiful set-up already contained turtles and crocodilians plus *Tilapia mossambica*, *Cichlasoma labiatum* and *Lepomis macrochirus*. The kings of the tank were the *C. labiatum*, who quickly eradicated the then resident *C. nigrofasciatum*!

Two months later, though the mozambiques were still ruling the roost, the red-eyes (now some 6 inches long), were beginning to make their take-over bid. The fight was on.

Some 16 months later the *C.*

AquaGLOSSARY

No. 4

A PFM guide to the meanings and accepted pronunciation of the scientific names of aquarium subjects, arranged by word-roots in alphabetical order

Gymno (Greek): naked. Pronounced 'güm-no' (= gim as in 'gimmick'). For example, the generic name of the black widow, *Gymnocorymbus ternetzi* ('güm-no-kor-im-buss tern-ets-ee'), refers to the naked (i.e. scaleless) region behind the head (*corymb*, Greek: nape). Also, the ruffe or pope, *Gymnocephalus cernua* ('güm-no-keff-al-uss kern-u-ah'), has a generic name denoting the 'scaleless' head (*cephalo*, Greek: head), and *Gymnochanda* ('güm-no-chan-dah') refers to the scaleless 'chanda' (native fish name). The trivial name of the cichlid *Geophagus gymno-genys* ('gee-of-fag-uss güm-no-gen-uss') literally means naked cheek (*genys*, Greek: cheek).

Macro (Greek): large, long. Pronounced 'mack-roe'. For example, in the names for the genera *Macrognathus* ('mack-roe-nayth-uss') and *Macropodus* ('mack-roe-poe-duss') the large size of the jaw (*gnatho*, Greek: jaw) and the enlarged anal fin (*pod*, Greek: foot) respectively are indicated by the prefix *macro*. Also the trivial names *macrocephala* ('mack-roe-keff-el-ah'), meaning literally large head), *macrolepidotus* ('mack-roe-leppy-doe-tuss': large scales), *macrophthalmus* ('mack-rof-thal-muss': large eye), *macropterus* ('mack-rop-terr-uss': large fin), *macrostigma* ('mack-roe-stig-mah': large mark) and *macracantha* ('mack-rah-can-thah': large spine). *Sagittaria macrophylla* ('saj-it-tare-ree-ah mack-roff-fill-ah') is a plant with large leaves (*phyll*, Greek: leaf).

Ophthalm (Greek): eye. Pronounced 'off-thalm'. Fishes with a characteristic feature associated with the eye often have this word-root as part of their scientific trivial name. For example, the rudd, *Scardinius erythrophthalmus* ('scar-dinny-uss air-ith-roff-thal-muss'), has a red eye (*erythro*, Greek: red); the eyes of the large Thailand catfish *Silurodes hypophthalmus* ('sill-yew-roe-dees hew-poff-thal-muss') are almost on the under jaw (*hypo*, Greek: under). In the golden rivulus, *Rivulus urophthalmus* ('riv-you-luss oo-roff-thal-muss'), it is the eye spot in the caudal peduncle that gives the trivial name, i.e. *ophthalm* combined with *uro* (Greek: tail). Likewise the dwarf rasbora, *Rasbora urophthalma* ('raz-bor-ah oo-roff-thal-mah'), with its caudal eye-spot.

trimaculatum weigh in at one and a half pounds and are nearly a foot in length—monarch of all the red-eyes survey, and they are still growing!

Jim Langhammer closes his story

with a reference for those serious students wishing to know more about these fishes: Jordan and Evermann's THE FISHES OF NORTH AND MIDDLE AMERICA.

Readers' Queries Answered



Breeding Glowlights

I can get very soft, acid water from a clear, fast running stream which comes off the moors; would this be okay for the breeding water for glowlight tetras (perhaps after mixing with a suitable proprietary conditioner)? I am rather worried about the purity of the water (bacteria etc.) and whether it would affect the results—if so, would heating the water to 100°F purify the water enough? I would appreciate any special tips.

The water that you suggest using for glowlight tetras should be quite suitable for use though it would be advisable to filter it through a fine mesh, such as a double layer of nylon stocking, to remove extraneous suspended matter. Boiling (212°F) would kill micro-organisms but it is not likely that this would be of significant benefit. Slightly acid water (pH 6.0-6.6) should be aimed at, and you may find that your water source is already close enough to this value. Incidentally, use water from the same source for the glowlights' stock tank, not merely in the breeding tank.

The parents, easily sexed because of the rotundity of the female when swollen with roe, should be conditioned beforehand with plenty of live food such as daphnia and brine shrimp. The breeding tank need be only quite shallow, though preferably 18 in.—2 ft. long. Either meshed (by boiling) nylon mops or fine-leaved plants from a disease-free tank may be used as spawning medium. A temperature of 78°F is suitable and it is suggested that the prospective parents should be placed in the breeding tank late in the day, after which spawning is likely to take place next day or the day after. Once the spawning procedure is completed (after some hours), the parents should be removed, and the tank covered until the fry are free-

swimming, which takes about 4 days. The fry should be fed frequently; for the first few days on Infusoria and egg yolk, then on finest food for egg-layer fry and newly hatched brine shrimp. Frequent feeding is the secret of raising fry quickly but great care must be taken not to pollute the water and frequent water replacement (2-3 in. depth only at a time) is recommended during rearing.

Pond Plants in Winter

The water plants have done very well in my garden pool this year but my neighbour has stated that the majority should now be thrown away in order to give the fish the best chance of surviving the winter. Is this really necessary?

It is a little difficult to know what your neighbour's reasons are for his statement if the plants referred to are submerged ones—possibly he is thinking of the danger to fishes of noxious gases arising from rotting vegetation at the bottom of a pond or he may be thinking of the requirements of both fish and plants for oxygen during the long darkness of winter when the production of oxygen by the plants, since it depends on the interaction of light, is so severely restricted. In either case, the remedy suggested is far too drastic. By all means tidy up the plants in the pond. Remove dead leaves of emergent plants, including any large quantities of duckweed that may be covering the water surface, and make certain that falling leaves do not find their way into the pond, either by regular checking and removal or by covering the pond with netting attached to a wooden frame. Requirement for oxygen by plants during the winter months is minimal as the plants stop growing, just as the fishes' usage of oxygen decreases as they become

torpid with the drop in temperature.

Since you write from the Home Counties and not deepest Siberia the problems of wintering fishes in an outside pond are not too taxing provided that some section of the pond is over 18 in. deep. There have been winters of intense cold when fish losses have been very high, but during a 'normal' winter, provided that the fish are well fed to start with, the pond is clean and care is taken to leave part of the pond surface ice-free with a layer of air between the ice and water surface, the fish should come to no harm.

Fin Congestion

I have a small tropical community tank and of late have noticed blood red lines running along the base of the dorsal and pectoral fins of a number of my fishes. Particularly affected are a pair of rosy barbs and one of the angel fish. A pair of gouramis and lemon tetras do not seem to be affected at all. Please could you tell me what causes this condition and how to cure it?

This condition is referred to as 'fin congestion' and it is a sign that fish usually exhibit when they are living in poor, overcrowded tank conditions. You do not give the size of your tank but you do say that you have a 'small' tropical community tank and it may well be that the fishes you bought when they were small have grown to such an extent that their tank has now become overcrowded. Overfeeding with dried food will also help to make tank conditions unhealthy and we would recommend that you give your tank a critical look. Apply the rough-and-ready, but still valid, rule of 1 in. of fish body to 12 square in. of water surface and see if you have too many fishes in your tank. Give the surface of the gravel a thorough clean with the aid of a siphon tube or cleaner and replace a third of the water each week for 3 weeks. A replacement of about one-quarter of the water each 2 weeks thereafter can be followed. Feed with only enough dried food for the fishes' immediate requirements, even if you have to increase the number of feeds each day.

Fish Tuberculosis

I have a 3 ft. tank filled with soft, acid water, containing eight Congo tetras. Up to now the fish have appeared healthy and have grown well. However, one male has developed a deep-seated red patch running from top to bottom of the caudal peduncle, which has spread fairly rapidly. Two of the smaller fish have got thinner and thinner, with the head seeming to get bigger and bigger. Can you help me to treat them?

The signs that you describe in your Congo tetras would correspond to those exhibited by fishes infected with fish tuberculosis. The fish that you have sketched in your letter, with its thin body, faded colour and now over-large head, gives a portrayal of many of the classic signs of the disease. But it has been found that other signs occurring when the disease is well advanced can include blood spots and wounds that will ultimately ulcerate, which may be the explanation of the red patch on the caudal peduncle of the one fish. A certain diagnosis can only be arrived at by post-mortem examination of such a fish but in any case there is unfortunately no known cure for the disease.

You could isolate the three fish showing the signs and take care that both lots of fish are kept in tanks that are scrupulously clean with some water replacement every 2 weeks. Obviously it would be inadvisable to add new fishes. A varied live food diet is recommended to tempt the emaciated fish to feed.

Sucking Loach

I am worried in case my sucking loach is not getting sufficient algae. It grazes over the rock all the time but the tank has not been set up very long and I am afraid it may not be getting enough food.

Gyrinocheilus aymonieri is one of the fishes requiring a mainly vegetable diet; its mouth, of course, is adapted for this very purpose—the well-developed lips are formed into a sucking disc that is fortified with rough hard folds to assist in its algae-grazing. As you have noticed 'grazing' is a very suitable description of the action that the sucking loach carries out incessantly. The soft green growth that forms on the glass

of the tank, and on the rocks and plants, can be encouraged by suitable siting of the tank where some sunlight will fall upon the front glass or by increasing the wattage of the bulbs or the hours during which the tank is kept lighted. These growths flourish in moderately hard, slightly alkaline water, which are exactly the conditions in which fishes who eat the algae also thrive. If you have more than one tank it might be possible to scrape algae from the walls of the second tank, collect it with a siphon tube and transfer it to the sucking loach. However, cooked spinach and lettuce will serve as substitutes until you get a good growth of algae forming. In the last resort, your sucking loach will not starve as it will take dried food and tubifex and will continue to do this even when sufficient algae is being provided for it.

Spanner Barbs

I don't doubt that I have got a spanner barb in my tank because of the distinctive black markings, but the rest of its colouring doesn't seem to tally with the descriptions I've read. I expected it to develop touches of yellow and orange with red fins. My fish has never been anything but silvery—could it be that its tank conditions are wrong?

This cannot be ruled out, of course, but incorrect tank conditions usually cause a fading of colours as the fish gradually droops. The coloration of spanner barbs does vary quite a bit—they are frequently described as 'silvery grey'. They are a species that is very widely distributed in Nature over the Malay peninsular area and because of this and the differing conditions that they encounter they can exhibit variations in colour and markings. Ideally the best young fish might have golden tinged sides with orange in the belly region and a red tinge to the fins but with age both the colours and the black barred markings tend to fade.

Coldwater 'Cats'

I have acquired three coldwater catfish, which I have in a 6-gallon tank on their own. At first they could be described as nocturnal but having settled down they are as unconcerned about the time of day as are my goldfish. Also, they are described as predators but mine, when fed with earthworms, require them to be very dead before they will look at them.

They seem to enjoy running water. Can you please tell me something about their predatory habits, water preferences and suitable feeding?

The Ictaluridae is the freshwater catfish family, found in North America, and the species that are commonly known there as bullheads, are the ones mostly sold as cold-water aquarium catfish. They are nocturnal fishes in Nature with their period of most intense activity taking place at night; but this does not mean that they are comatose during the day time and unless they have plenty of places in which to hide (and these should be provided as individual catfishes tend to go in for some bullying) they may move about the tank a good deal. Their natural habits may also be modified by life in an aquarium where food is provided for them not at times at which they would choose to search for it but when it suits the owner.

The fish are predators in their natural habitats, living on small aquatic animals, and sometimes fish spawn and small fishes, and because of this they require a protein diet in the aquarium—earthworms, suitable sized pieces of raw meat, ox heart, slugs and, when the fishes are small, tubifex worms. They must not be kept with long-finned fancy goldfish as they will chew off such delectable morsels from the unhappy goldfish. They are extremely avid eaters and are able to search out the smallest portion of food lying around—not just by happy coincidence or even perseverance but because, as well as with the sensory aid of their barbels, the bullheads are provided with a network of tastebuds distributed all over their bodies, and a network of nerve ends over the barbels and head that are particularly sensitive to touch.

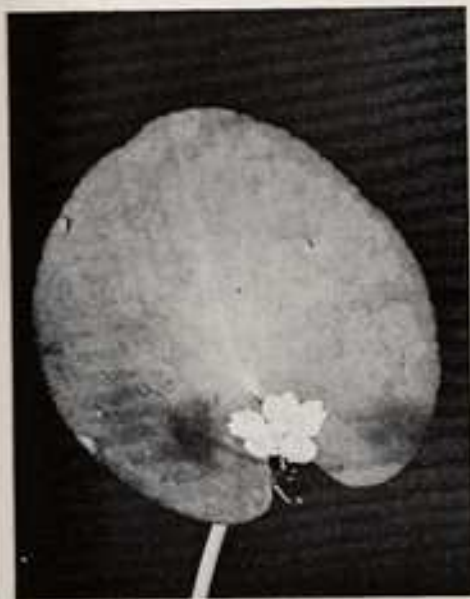
In a small tank these animals will certainly appreciate aeration or, particularly, the aerating properties of running water, but curiously enough, in Nature they are often the last survivors in a stagnant pond and the American ichthyologist, Mr Brax Walker, reports on bullheads being 'ploughed up' alive and kicking from earth that the fish had moved on to when the fields were flooded and were then stranded there when the flood waters receded. A temperature of 60-65° is suitable for these catfish.

Underwater 'Banana Plants'



By
KAREL RATAJ

Photographs by
RUDOLPH
ZUKAL



THIS plant belongs to a family comprising mostly marsh or land plants, but the genus *Nymphaoides*, into which group our plant falls, contains the true water plants. There are about 25 species of *Nymphaoides* distributed mainly in the tropics and sub-tropics but reaching also into the temperate zone with the species *Nymphaoides peltata* (Gmel.) Kuntze.

The underwater banana plant, *Nymphaoides aquatica* (Walt.) O. Kuntze, itself comes from the south-eastern parts of the United States, mainly from Florida. It is a perennial water plant sprouting long, thin leaf-stalks from a stiff rhizome made up of a number of tubercles $\frac{1}{4}$ - $\frac{1}{2}$ in. long (1-3 cm.), looking exactly like a bunch of small bananas, and it is this, of course, that gives the plant its common name of banana plant. In Nature the leaves are only submerged for a short period and they are then green-coloured on both the upper and lower surfaces. But the typical floating leaves, round or

Photographs show the mature entire submerged plant with its banana like rhizome and the floating leaf (left) with a flower arising from the leaf-stalk and growing above the water surface

oval in shape and deeply incised at the base to form a heart shape, are dark green above and purple and spongy on the lower surface. These leaves are about 4 in. (10 cm.) long.

The flowers are white, with a fringed edge, and about $\frac{1}{2}$ - $\frac{3}{4}$ in. (1.5-2 cm.). They grow from the leaf-stalk $\frac{1}{2}$ - $\frac{3}{4}$ in. (1-3 cm.) below the leaf blade, and it is from this point that roots and the new plant are formed. This is the way the underwater banana is

propagated since propagation from its seeds is a very slow method.

This is a plant that really should be grown in the aquarium without any further nourishment than the substrate itself provides and preferably without a great deal of light. If it is given too favourable conditions and plenty of light it develops enough floating leaves to cover and shade the whole surface of the tank.

Can we always be sure water is ready for fish

As it comes from the Tap

By F. W. COLES

IN so many aquarium books and articles we are assured that tap-water, particularly in limestone-free areas, is just what is needed to keep and grow healthy fishes. I have been carrying out a little investigation amongst aquarists to find out their reactions to these statements. The results have been somewhat surprising.

Most supplies of tapwater suffer from disadvantages when it comes to fishkeeping, and perhaps two of them are fairly well known—the added chlorine and (possibly) fluoride. People seem to imagine that otherwise the water is more or less delivered to the consumer as it is received by the authority, but this is far from the case. It should, perhaps, be explained that if the water boards did this consumers could be very quickly experiencing deterioration in lead pipes or brass fittings depending on whether the water supplied was alkaline or acid. To obviate this, the water boards correct the pH (reaction) of the supply and usually put out water slightly alkaline (pH 8.4), which is the middle course between these two evils. They can also add a 'buffering agent' to obviate fluctuations in pH. It should be stressed that the authorities are trying to supply the best possible water for human consumption, and they succeed in this, but that is not to say that the water is equally suitable for fishkeeping.

We aquarists are usually a placid lot when it comes to actual fishkeeping, and so long as things are going along all right we say 'Why worry?' Unfortunately in some respects we live in a world of change, and one of

the areas in which change is taking place very rapidly is that of water supply. New reservoirs are being made, new filtration plants are being put into use, and our own private water supplies are being altered. There is no compulsion on the authorities to notify aquarists when these changes are made, and as such events are not 'news' they usually are not reported in the newspapers. So although things may be going along all right now, what about the future?

The changes I have mentioned above are permanent ones, but there are of course temporary changes of which the aquarist may not be aware. If, for instance, there has been an interruption in supply through a burst main, or other causes, there is a tendency for an increased chlorination to take place, to ensure that the supply is 'safe'—chlorinated water, within the concentrations used, being harmless to human beings and their cats and dogs. Also the amount of chlorination being received by the consumer depends to some extent on

the distance he is from the filtration plant.

We are frequently told that if we turn on the tap fully when running the water into the container, the chlorine will largely be dissipated, or that if two crystals of 'hypo' are dropped into the bucket the chlorine will largely disappear. These statements are only valid when the amount of chlorine is small, and in any case how do we know how much chlorine we are dealing with? There are, of course, tablets which act as indicators, but, as we already know chlorine is there, they really tell us nothing.

Losses of fishes amongst experienced aquarists can often be traced to the presence of chlorine in the water supply, and some aquarists in this particular area (west Yorkshire), when cleaning their tanks, siphon off the water and wash and, after running it through a filter, return it to their tanks again. This procedure is good, when the area is a soft water one, and the water can stand a gradual build-up of hardness, but may not be as successful in a hard water area. Compensation for evaporation is made by using rain water only.

The kind of filter used in this procedure must, of necessity, be much larger than the ones used on fish tanks, and can be made fairly cheaply by using a small bucket with holes made in the base; the interior is filled with charcoal, gravel and filter wool (from bottom to top).

The collection of rainwater can be carried out fairly easily if a greenhouse roof is available, by putting up the necessary guttering and adding a water butt or new plastic drum, but

The BRITISH KILLIFISH ASSOCIATION's services secretary's new address for tape and slide shows is: Mr F. Bolton, High Croft, 11, Hill Street, Upper Gornal, nr. Dudley, Worcestershire.

can no doubt be a problem for many people without such facilities. However, even a number of plastic buckets left in the open can provide some supply if only a small number of tanks are in use.

The use of pure rainwater, which of course is very soft, could make a problem for people keeping fishes that require harder water in which to thrive; this could be overcome by the expert aquarist by adding calcium in some way, either directly or indirectly by using limestone gravel or rockwork. This would necessitate some form of water testing for hardness. It would require some time for this to be done, but the aquarist would know the composition of his water and it would be under his direct control. It would contain

nothing that he would regard as harmful.

Chlorine in quite small concentrations is exceedingly harmful to fishes, and if present in quite small quantities can inhibit growth drastically. It can, of course, be lethal in the amounts often found in tapwater, and can explain many of the apparently inexplicable fatalities amongst fanciers' stocks. The effect of chlorine is often unnoticed, but if fish are found on the bottom of the aquarium, or in a corner, obviously unhappy, and examination shows they are not exhibiting signs of any of the obvious diseases which they can get, chlorine should be suspected if tapwater is used.

Some fishes are more resistant to the effects of chlorine than others,

the most resistant in this area being: some of the danios, *Rasbora trilineata*, widows (*Gymnocorymbus ternetzi*), some platys and swordtails; among the least resistant are guppies (oddly enough), mollies, anabantids and some of the raboras.

RAINWATER is well known to have unsuspected impurities dissolved in it even when it is collected under conditions that avoid the solution of substances from, for example, tiled or metal roofs or the container and pipes used for collection. In London rainwater the content of lead is 0.11 mg. per litre, a figure in excess of the World Health Organisation's recommendation of 0.1 mg. per litre for drinking water, according to one report.

Book Review

KNOW YOUR BETTAS by Gene A. Lucas. 63 pages. 31 colour photographs in text and 6 line drawings. The Pet Library (London) Ltd, 1972. 38p.

THE author has grown up with the betta and knows his subject thoroughly. Hence, this is not just a how-to-do-it guide but a scholarly appreciation of a fish for which Mr Lucas shows both affection and respect. He traces its derivation and describes its natural locale, then spends some 20 pages dealing with the numerous forms in which the fish exists. The real beginner will find it necessary to get outside help over genetics in order to derive maximum benefit from this section, but aquarists familiar with breeding philosophy will no doubt go away very satisfied with the many possibilities suggested.

I find this a commendably balanced essay. Far too many writers on their pet subjects over-enthusiase and one is left with a sneaking suspicion that there must be some catch in it. This book admits to all the betta snags that I know about, and some that I did not know about: the other side of the balance sheet is represented just as fairly and I find such frankness most refreshing. The short life-span of the average specimen has always made me think twice before buying a fighter, but readers

who have shared these feelings will undoubtedly be attracted by the ease of breeding this species and all the fascinations of developing the very numerous forms which the author describes.

The breeding cycle is dealt with briefly but adequately, and the really splendid photographs speak volumes. The author shares with Barry Pengilley. A van den Nieuwenhuizen and Klaus Paysan highly professional competence with his camera, and the line drawings reflect his comparable competence as a draughtsman. The book itself is produced on high quality paper and the proof reading, mercifully, is good. Only two minor criticisms detract. One is that the final line drawing is, oddly, numbered '16', and the other is that in the course of printing many of the pages in my volume the type has wandered from the horizontal. One notes, though, that it was printed in Singapore.

My sole doctrinal concern relates to the feeding of brine shrimp in the quantities suggested. In raising fry of other species I have always been careful to use this excellent food in such a way that there is no build-up of salt in the young fish, and I am surprised that the author has not drawn attention to the need to use some discretion in this direction. It is otherwise such as to attract due recognition from those who know about fish, and it should be successful.

ROY PINKS

BOUILLABAISSE. AQUATIC ODDBALLS. By Braz Walker. 202 pages. Black and white photographs and line drawings. 1972. San Francisco Aquarium Society, U.S.A. \$3.95.

HAVING been a bibliomaniac for more years than I can remember, I need little convincing that no matter what subject you can think of someone will have written about it. I always thought that in the field of aquatics, authors tended to be rather conservative about the titles of their works, but this theory was shattered when I receive a book entitled BOUILLABAISSE!

Written by Braz Walker, a familiar name to readers of PFM, it is about aquatic animals—not another text book on fish only, but the sublime and ridiculous, real and imaginary inhabitants of water. It even includes whales, sea serpents and monsters that would make a Hammer film look like a Disney cartoon.

If you are wondering about the title it means a kind of 'fish' dish, a hotchpotch fish mixture from Provence in France, a name made famous by William Makepeace Thackeray in his 'Ballad of Bouillabaisse.'

Copies can be purchased from The San Francisco Aquarium Society, Golden Gate Park, San Francisco, California 94118, U.S.A.

JIM KELLY

The Golden or 'Schuberti' Barb



By RUDOLPH ZUŽAL

Photographs by the author

Translated by F. MARSH

MANY aquarists may wonder why the 'schuberti' part of this fish's name is written in quotes. This is done deliberately as the name so often used for the golden barb is not scientifically valid. Over the years the fish has not been classed as a species but has been variously thought to be a relative of *Barbus szechu*, or a cross between various other barbs or, finally, as by Professor Günther Sterba, a xanthose (yellow) variation of *Barbus semifasciatus*. Speaking as a non-academic but long-practising aquarist I should like to associate myself with the last contention and to explain why this is my opinion.

Almost all barb species spawn with the male pressed closely to the female, his caudal fin swung over the hindpart of the female's body while she ejects the eggs, which are then immediately fertilised by the male; the fish part and the eggs fall freely to the bottom. This, of course, takes place in a split second and can hardly be registered with the eye. The speed of the spawning act varies within the barb family—with the danios the act takes place at tremendous speed whereas with rasboras egg-laying proceeds much more slowly. But one thing is constant, and that is the end phase of the spawning procedure, when the male swings his caudal fin over the female.

When *Barbus semifasciatus* spawn the fish swim closely pressed together, make a lightning movement under the water surface scarcely visible to the eye and fall apart. And this is exactly how golden barbs spawn.

Courship of the female by the male golden barb is accompanied by many butting movements into the sides. In the picture on the opposite page the male is the lower fish



The fish were allegedly imported into Europe in 1920 from upper India, and they reach a size of only about 1½ in. in length. When the golden barb first appeared in the United States they were held to be a cross, but it is interesting to note that the fish's colouring has been passed on to their descendants absolutely unchanging and without variation.

The ground colouring is a remarkable yellowish gold though the belly has a somewhat silvery

gleam. There is a black fleck at the root of the tail fin and a row of similar little blackish flecks just below the dorsal. The older fish develop these flecks along the sides of their bodies. In adult fish the sex is not always easy to distinguish, although the male remains the smaller, slimmer fish and can be somewhat more intensively coloured. At the same time the female is fuller in the belly and as she ages she is the larger fish and the less intensively coloured.

Golden barb are peaceful and perfectly suited



A spawning site beneath a patch of floating plant was eventually selected (photograph at top of the page) and after much close swimming by the male the female begins to spend more time in this area



At times almost immersed in the patch of floating plant the pair of golden barbs swim around one another before the very rapid spawning contact in which the eggs are released and fertilized. In the two pictures on this page, showing phases of the spawning procedure, eggs can be seen at the water surface. After each release of eggs the pair fall to the tank bottom and then swim to the top to spawn again.

to community life. Altogether they are undemanding, omnivorous (although they take their food mostly from the bottom of the tank they do not

dredge up the mulm), and happy with a temperature 70-75°F (20-22°C) in normal tap water in a medium-sized tank.

Breeding

Breeding the golden barbs presents no particular problems. A medium-sized tank filled with tap water at about 78-80°F (24-26°C) and containing fine-leaved and floating plants is used. While the spawning is taking place the pair will take no notice of the ejected eggs but once the spawning procedure is completed the fish will eat the eggs avidly, so the parents must be removed as soon as the spawning is seen to be over.

The eggs hatch on the third day and the fry remain near the bottom of the tank, from where they eat. Once the fry are free-swimming they should be fed with the finest live foods, but even with good feeding they do not grow particularly quickly.



Rock-pool Fishes and Invertebrates from Our Coasts

FOR a couple of years we have been keeping a tank set up to house the various interesting creatures which can be found in the rock pools at Black Rock, Brighton, which is only about a dozen miles from where we live. Originally we visited these pools with a view to

By
JIM BURTLES

Mid-Sussex A.S.



Common blenny
and rockling

collecting shrimps to provide our larger cichlids with a change of diet that they really do seem to enjoy.

Our initial set-up was an old box-topped plastic tank fitted with an undergravel filter covered with about 2 in. of gravel straight from the beach. To create as natural an environment as possible a large number of stones were built right up the back and sides of the tank, high enough in places to reach up to the water level. This arrangement provided many small hiding places as well as giving a natural-looking background with plenty of surfaces suitable for sea anemones.

We later acquired an all-glass tank for the specimens, and at first, we fitted a box-type filter as I felt that with a large area of the gravel covered with heavy rockwork an undergravel system could not function properly. Subsequent water conditions proved this approach to be wrong and we returned to the undergravel filter. The only improvement incorporated into our newer larger tank is the greater depth of gravel, giving about

3 in. minimum depth over all of the actual filter. To help stabilise the water conditions, by neutralising the acidic effects of excreta from the animals, several lumps of natural chalk are kept in the tank.

Obviously there is a fairly wide choice of fishes and other animals that can be found but not all of them are suited to aquarium life for one reason or another. It is not easy to provide plankton feeders with a natural diet unless one has a continuous supply of fresh seawater. This is out of the question if you live more than a few yards from the sea! Substitute diets for plankton feeders are a bit tricky as there is a distinct risk of fouling the tank with fine particles which are too fine to be seen with the naked eye. Starfish do not seem to take to tank life very readily unless taken when quite small, although there are some massive ones in Brighton Aquarium's huge tanks. Maybe it is a matter of giving them sufficient space in which to roam. Most of the pipefish family, including seahorses, do not usually

settle down to tank life. Some other unacceptable occupants grow far too large, such as conger eels, or need to be in large fast-moving shoals, like mackerel.

The most successful and easily obtainable occupants of the home aquarium is the common blenny or shanny (*Blennius pholis*), which is said to grow to about 5 or 6 in. although I have so far failed to catch one much bigger than 4½ in. (but as they get older and wiser as they become more difficult to net!) Tumpot and butterfly blennies (*B. gattorugine* and *B. ocellaris*), which reach 8 in., are rather more rare around our coasts but well worth trying for as they are a little more ornamented, bearing feathery tentacles over the eyes. Blennies are well adapted for survival in small pools or tanks for they can and will eat almost anything with relish. With their powerful jaws they remove and open limpets, mussels, whelks etc., and they literally crunch up those little barnacles which encrust everything; even crabs are likely to be savaged by them until they get to a fair size. A golden rule is to keep blennies well fed if you want to keep anything else in the same tank or they will become the sole occupants. The only things I have not seen them eat are the anemones. Despite their bad table manners these little fellows are very amusing and quickly adjust to their new surroundings. In a few days they will be bobbing their heads out of the water to take food from your fingers.

One of the more endearing qualities of blennies is that they all have distinct characters. We have an 'absent-minded' one called 'Grandad', and 'Mother', who always sleeps with her head and body completely out of the water on her own private perch which no-one is allowed to invade. Observation leads me to believe that they are unaffected or ignored by the anemones although this fact is not mentioned in the books I've read.

As there are very few attractive seaweeds and even fewer that will do well in the aquarium one must turn to sea anemones for decorative effects. These semi-sedentary creatures are not only aesthetically pleasing but also rather interesting to watch. Immediately any food touches one of the many waving tentacles the anemone 'stings' its prey and the sticky arms wrap themselves around it. The meal is then moved towards

the central mouth with a motion that is reminiscent of a conveyor belt. The commonest anemone is the beadlet (*Actinia equina*), so called because of the ring of blue or purple dots around the base of the tentacles. When fully 'open' these beadlets are mostly obscured. A variety of the beadlet is known as the strawberry beadlet because of the markings on the foot, which give it a remarkable resemblance to a strawberry when the tentacles are withdrawn.

Another attractive anemone is the rarer dahlia anemone (*Tealia felina*), which somewhat resembles a dahlia flower. This one is a little larger than the beadlet, growing to about 3½ in. high and 4 or 5 in. across. Other less-common but attractive ones are the plumose, wartlet and snakelocks anemones (*Metridium senile*, *Bunodactis verrucosa* and *Anemone sulcata*). There are some 1000 or more species of anemone so it is clearly not possible to describe them all. In the aquarium it is a simple matter to feed anemones with small pieces of fresh meat every few days.

The third type of inhabitants in our tanks are the various crustaceans such as shrimps, prawns, crabs and hermit crabs. Both prawns and shrimps very soon succumb to the voracious blennies; unless they are introduced as a food stock they are best kept in a separate invertebrate aquarium. Small shore crabs (*Carcinus maenas*) do quite well in the aquarium and act as efficient scavengers. They do tend to hide themselves away at first but soon learn to fend off the blennies and become gradually bolder. We have at the moment a swarm of newly hatched shore crabs in one tank and hope to bring them up through their two larval stages to mature crabs. The female carried the fertilised eggs around for 2 weeks and they changed from a bright orange to grey as they developed.

Hermit crabs (*Pagurus bernhardus*) are well worth keeping even if only to watch their amusing house-hunting antics. They will explore a prospective new home for hours before deciding to 'move in' and may try the new one for size before deciding that they prefer the original. During the change-over period they are especially vulnerable to attack, so it is essential to provide them with plenty of cover where they can carry out these delicate manoeuvres in privacy.

We have kept a number of common starfish (*Asterias rubens*), which glide along with their hundreds of tiny 'tube feet'. Unfortunately they do hide away behind the rocks for days on end, besides which they are unable to tolerate temperatures that are much in excess of 65°F (18°C). Small plaice (*Pleuronectes platessa*) and most of the flatfishes will do well if they are given a fine gravel in which they can settle. Although they do not bury themselves their camouflage makes them difficult to spot. In time 'flatties' will outgrow all but the biggest tanks.

There are a number of gobies obtainable; the ones we have are *Gobius microps*, which are usually about 1 in. long but are said to

We change about 80% of the water in our tanks every 2 or 3 weeks and use 'real' seawater, as opposed to synthetic water. Synthetic is probably better in some ways, such as purity, but it is a lot more expensive than the stuff I get for free! The disadvantage of natural seawater lies in the fact that it may contain large quantities of plankton etc., which can multiply alarmingly to produce very murky water after a few weeks or months according to temperature and lighting conditions. It therefore needs to be changed frequently. The alternative is to store it in cool dark places for several months until all the planktonic life has died off and then the cleared water can be used quite safely.



Hermit crabs are a source of great interest when observed at 'house-hunting' time. Many new shells are tried before the selection of the fresh source of protection is finally made.

grow to 2½ in. Gobies are pretty defenceless, however, and don't last long with bigger fishes around.

We have had for quite a long time now a couple of bearded rocklings, which are shy but active eel-like fishes. The books suggest the three-bearded rockling as being the commonest but I have not yet positively identified the ones in our tank, which have four tentacles and one barbel instead of two tentacles and one barbel. For the time being I refer to them as five-bearded rocklings.

There are many other interesting creatures from the local coastal waters that would be worth keeping. Our latest find is a sea urchin that we hope will flourish in its new surroundings. A point we learnt the hard way is that strong aeration is essential to the well-being of marine animals. Not only do they require much more oxygen than freshwater fishes but seawater absorbs far less oxygen than freshwater at a given temperature. When you think about it it is obvious that with all that salt already dissolved in the water there must be less absorption capacity for gases like oxygen.

When changing the water the tank is almost completely drained, leaving only an inch or so of water. These shore fishes are used to being left high and dry in their natural environment so this drastic reduction of water level doesn't worry them at all. Fresh seawater is then slowly poured on to the rocks until the normal level is reached. The water is transported in 5 gallon sherry containers (obtained from the local off-licence). These are ideal as they are square and can be balanced on the top of the tank and the tap opened to pour the water in while you get on with something else. After the change of water the occupants are always ravenously hungry and come to the surface to beg for food. It has to be seen, but blennies do actually bob their little heads out of the water when they are hungry.

There are a number of books available from the public library concerning the seashore and marine life, and my particular favourite is *THE YOUNG SPECIALIST LOOKS AT SEABED LIFE* by Werner de Haas and Fredy Knorr, published by Burke Publishing at £1.25.



FBAS Basic Show Class Letters:
A: furnished aquaria and aquascapes; **B:** barb; **C:** characin; **D:** cichlid; **E:** latyranth; **F:** egg-laying tooth-carp; **G:** tropical catfish; **H:** Coecy-dora and Brochis; **J:** rasbora; **K:** danio and W.C.M.M.; **L:** loach; **M:** a.o.s. tropical egg-layer; **N:** pairs of fish; **O:** guppy male; **P:** guppy female; **Q:** swordtail; **R:** platy; **S:** mollie; **T:** a.o.s. livebearer; **U:** angletailed goldfish; **V:** twinstailed goldfish; **W:** a.o.s. coldwater; **X:** breeders classes; **Y:** marine fish; **Z:** plants.

P.R.O. of KINGSTON & DAS, Mr N. E. Sanford, writes: "KINGSTON & DAS combined with SPASS held their annual show at the Ham Hall, Ham. Although the entry was down on last year the show as a whole was a great success and the quality was high—perhaps this means something if it is given thought! The hall could not have been better for the purpose of fish showing. Subject to the sanction of the club, I will go as far as to say that the KDAS show will be held again at the same venue, so make a tentative date. We already have some new ideas and will give you more details later. Mr B. Daley of Basingstoke did it again—his *Polypterus ornatus* wins another best fish in show award. What a fabulous fish that is; keep him going Bob! Rochester collected the Kingston Shield for the highest pointed club. Judges in attendance were: Mr R. Wigg, Mr E. Nye, Mr J. Sewell, Mr W. Gorwill, Mr F. Tomkins, Mr C. A. T. Brown, Mr N. Wilson, Mr W. Louch and FBAS chairman, Mr R. Eason."

Results of the show were: Ad: 1 Mrs. Jones (E. London); Ac: 1 & 2 Mr D. Nott (Kingston & SPASS trophy, Tottenham); B: 1 Mr S. Mason (Fish House Bowl, Basingstoke); 2 Mr J. Balfour (Tom Scoble); 3 Mr B. Bissell (Basingstoke); C: 1 & 2 Mr M. West (Dun Larkin trophy, KDAS); 3 Isobel Ballingham (Oblong Pet Shop trophy for best pair); Ce: 1 & 2 Mr S. Lee (FBAS Southern Chertsey Cup); 3 Mr M. Strang (Basingstoke); D: 1 Mr S. Batts (Basing); 2 Mr M. Strang; 3 Mr L. S. Durr (Croydon); Da: 1 & 3 Mr Northall (Oxton); 4 Mr A. G. Stacey (Gosport); Db: 1 & 2 Mr F. Willis (The Committee Bowl, Portsmouth); 3 Mr S. Mason; E: 1 Mr D. Lambourne (King trophy, Basingstoke); 2 Mr M. West (KDAS); 3 Carol Stebbins (KDAS); Ee: 1 Mr E. Pymonville (Gosport); 4 Jean Price (KDAS); 5 Mr R. Ross (Gosport); F: 1 Mrs J. Gerrard (The Ham trophy, Basingstoke); 2 Mr D. Ellis (KDAS); 3 Mr M. Walker; G: 1 & 3 Mr D. Lambourne

(Greenhall trophy); 4 Mr B. Goodson (Basingstoke); H: 1 Mr Northall (Basingstoke); 2 Mr S. Mason (Basingstoke); 3 Mr T. Crickbank (Basing); I: 1 Mr S. Mason (Polka trophy); 2 Mr D. Armour (Basingstoke); 3 Mr J. Batts; K: 1 Mr J. A. King (Kingston trophy, Eton); 2 Mr Northall; 3 Mr L. S. Derrick; L: 1 Mr Northall (P & D trophy); 2 Mr B. Bissell; 3 Mr D. Armour; M: 1 Mr B. Daley (John Martin trophy); 2 Mr D. Lambourne; 3 Mr B. Goodson; N: 1 Mr J. Ross; 2 Mr B. Bissell; 3 Mrs J. Gerrard; No: 1 Mr S. Mason; 2 M. Northall; 3 Mr B. Daley.

O: 1 Mr Northall; 2 & 3 Mr T. Crickbank; P: 1 & 2 Mrs J. Gerrard (Basingstoke); 3 Mr F. Verall (Basingstoke); Q: 1 Mr S. P. Taylor; 2 Mr T. Crickbank; 3 Mr S. Mason; R: 1 Mr J. Batts; 2 Mr S. Mason; 3 Mr D. Crickbank; S: 1 Mr Northall; 2 Mr K. South (Oxton); 3 Mr J. Price (Basingstoke); T: 1 Mr J. Bissell (Tropaeus

trophy, Basingstoke); 2 Mrs Thompson (Basingstoke); 3 Mr K. West (KDAS); U: 1 Mr R. Whittington (Ron Dudley Cup); 2 Mr R. E. Dudley (SPASS); 3 Mr Louch; 4 Mr R. E. Dudley (Tropaeus trophy); 5 Mr R. Whittington; 6

trophy, Basingstoke); 2 Mrs Thompson (Basingstoke); 3 Mr K. West (KDAS);

U: 1 Mr R. Whittington (Ron Dudley Cup); 2 Mr R. E. Dudley (SPASS); 3 Mr Louch; 4 Mr R. E. Dudley (Tropaeus trophy); 5 Mr R. Whittington; 6



Mr John Batts with his first-prize winning *Tilapia mariae* (a.o.s. cichlid class) at the Kingston & DAS open show

At a recent delegate meeting it was decided to change the title of the Association of Yorkshire Aquarist Societies. The new title is YORKSHIRE & ASSOCIATED AQUARIST SOCIETIES (YAAS). This change has been made because the new boundaries soon coming into force would mean that membership might well be affected. Now this step has been taken non-Yorkshire societies may join the Association (many requests have already been received from non-Yorkshire clubs). Should any society be interested further information can be obtained from Mr E. Storey, 139 Bradford Avenue, Greatfield, Hull, Yorks (a.o.s. please).

Mr Louch; U: 1 & 2 Mr D. Moxey (Stan Freeman trophy, GBGB); 3 Mr S. M. Whittington; G: 1 Mr V. Hunt; Va: 1 & 2 Mr Louch (Morris Cup); 3 Mr D. Nott; Vb: 1 Mr Louch (Wendell trophy); 2 Mr V. Hunt; 3 Mr F. Pender (Horn); Vc: 1 Mrs M. Dudley (Morris Cup); Vd: 1 & 2 Mrs M. Dudley; V: 1 & 2 Mr T. G. Glynn (SPASS); 3 Mr C. A. Long; W: 1, 2 & 3 Mrs M. Dudley (Marguerite Dudley Cup); Vb: 1 & 3 Mr T. C. Thomson (SPASS); Vc: 1 Mr J. Smith; W: 1, 2 & 3 Mr V. Hunt (Grey's of Wembley trophy); Wc: 1 Mrs S. Hughes (The T.H. shield, B. Grey); 2 Mr R. E. Dudley; 3 Mr R. Rich; Wo: 1 Mr Bissell (Pawcock trophy, Portsmouth); 2 Mrs S. Hodges; 3 Mr R. E. Dudley; X: 1 Mr F. Willis (The Ella trophy, Portsmouth); 2 Mrs P. Lambourne; 3 Mr D. Lambourne; Xa: 1 Mr Bissell; 2 Mr J. Thompson; Xb: 1 Mr D. Morgan; 2 Mr Louch; 3 Mr P. Whittington; Xc: 1 Mr R. Whittington; Xd: 1 Mr P. Whittington (The Peter Hunt Cup); 2 Mr J. Hughes; 3 Mrs Arrow; Xe: 1 & 2 Mr J. Hughes (Basingstoke); 4 Mrs Arrow; Xf: 1 & 2 Mr R. Pollard; 3 Mrs Arrow.

KEIGHLEY AS invitation evening with the PRIVATEERS of Shipley took the form of an inter-society table show and general discussion evening. Results of the table show were:

Labyrinths: 1, Mr Hoop (K); 2, Mr Dibson (K); 3, Mr Whitaker (P). Barbs: 1, Mrs Taylor (K); 2, Mr Hoop (K); 3, Mr Hart (K); Sharks, loach, cat and loaches: 1, Mr Whitaker; 2 & 3, Mr J. Mosley (K); Characins: 1, Mr Hartley (P); 2, Mr Hart; 3, Mr D. Mosley; Cichlids: 1, Mr Taylor (K); 2, Mr D. Mosley; 3, Mr Whitaker; Anabantids: 1, Mr Dibson; 2, Mr J. Mosley; 3, Mr Hoop; Toothcarp: 1, Mr J. Mosley; 2, Mr Hart; 3, Mrs Gaze (K); Danos: 1, Mr Hart; 2, Mr Hoop; Goldfish: 1, Mr D. Mosley; Breeders: 1 & 2, Mrs Gaze; 3, Mr D. Mosley; Pairs: 1, Mr J. Mosley; 2, Mrs Gaze; 3, Mr Melvin (K); Juniors: 1, Master Burdett (K); 2, Master Jones (K); 3, Master Cook (R).

The air pump for the person gaining most points with all his fish entries was presented to Mr J. Mosley.

At the **YATE & DAS** Open Show the best fish in show belonged to Mr T. M. Fowler (Bath); Master Nigel Gray (Independent) gained both the award for the highest number of points and the best junior award.

The results are as follows: Guppies, male: 1, Mr P. A. Lewis (BTFH); 2 & 3, Mr A. Harris (Bishop Cleeve); Guppies, female: 1, Miss V. Press (Bath); 2, Mr D. Walsh (Yate); Swordtails: 1 & 3, Mr R. Lawrence (BTFH); 2, Mr T. Hayward (Yate); Mollies: 2 & 3, Master N. Gray; 1, Mr P. Goodwood (Bishop Cleeve); Platys: 1, 2 & 3, Mrs W. Smart (Bath); Nemoed barbs: 1, Mr F. Rowell (Bath); 2, Master N. Gray; 3, Mr A. J. Hillwood (Bath); Barbs: 1, Mr T. Fowler; 2, Master N. Gray; 3, Mr C. Turner (Cardiff); Dorsos, ramboras, sumatras: 1, Mr D. Walsh; 2, Mr R. Hyatt (Yate); 3, Mr F. G. Sutherland (Cardiff); Characins H & H: 1 & 2, Mr R. Dewis (Cardiff); 3, Mr B. Walter (Yate); Characins a.o.v.: 1, Mr S. Green; 2, Master Nigel Gray; 3, Mr R. Hyatt; Anabantids: 1, Mr F. G. Sutherland (Cardiff); 2, Mr Lawrence (BTFH); 3, Mr F. Rowell; Sumatra fish: 1, Mr F. G. Sutherland; 2 & 3, Mr T. Hampshire (Yate); Angels: 1, Mr P. Goodwood; 2, Master Nigel Gray; 3, Mr T. Hampshire; Cichlids a.o.v.: 1 & 3, Mr R. Dewis; 2, Mr S. Green; Dwarf cichlids: 1, Mr R. Hyatt; 2, Mr R. A. Bennett (Yate); 3, Master N. Gray.

Corydoras, Israeli: 1, Mr P. A. Lewis; 2, Mr T. Hampshire; 3, Mr C. Scriver; Catfish a.o.v.: 1, Mr R. Lawrence; 2, Mr T. Fowler; 3, Mr S. Green; Loaches, eels, loach: 1, Mr F. Buckingham (Cardiff); 2, Mr A. J. Hillwood; 3, Mr T. Hampshire; A.v. reed rats: 1 & 2, Mr R. Hyatt; 3, Mr S. Green; Breeders, freshwater: 1, Mr C. Turner; 2, Mrs K. Martin (Independent); 3, Mr T. Hayward; Breeders, egg layers: 1, Mr C. Turner; 2 & 3, Mrs K. Martin; Killifish: 1 & 2, Mr G. Churchill (Yate); 3, Mr M. Turner (Yate); A.v. tropical fish: 1, Mr A. J. Hillwood; 2, Mr D. Walsh; 3, Mr R. Lawrence.

Goldfish: 1, Mrs K. Press; 2, Mr T. Hampshire; 3, Mr J. Powell; Shubunkins, fancy goldfish: 1, Mr B. J. Bennett; 2, Mr G. Press; 3, Mr B. Sweet (Independent); A.v. pond and river fish: 1, Mr P. A. Lewis; 2 & 3, Mr J. Powell; Juniors a.o.v.: 1, Miss L. Press; 2 & 3, Master N. Gray; Bull Valley cichlids: 1, Mr R. Smart; 2, Mr R. Dewis; 3, Mr A. Gillham; Fawnhead jans: 1, Mr G. Miles (Bristol Aero); 2, Mr R.

On Sunday, 14th January 1973, **DERBY REGENT AS** will be holding a *Grand Aquarist Seminar*, an extravaganza of lectures and films all day at the *Playhouse Theatre, Derby*. There will be talks by Dr N. Carrington, Mr Graham Cox and Mr Roy Skipper; the chairman will be Mr Ron Trench. It is hoped to provoke questions and discussion among all those present, and to gain maximum benefit for all. In order to 'get the show on the road', the Society need to sell 200 tickets, that is at least five to 40 societies. Full details are being sent to club or show secretaries. Tickets will be 50p and to encourage early booking, special party rates will apply, if booked before 18th November. Enquiries to Mr J. Bland, 3 Cumberhill Road, Duffield, Derby DE6 4HA (phone Derby 841235).

Russell (Bath); 3, Mrs K. Press, A.v. reed tropical plant: 1, Mr M. Rida; 2 & 3, Mr J. Powell (Yate).

THERE was a total of 383 entries at the **HARLOW AS** open show, from which the best-in-show award was made to a *P. kribiaensis* entered by Mr W. E. Goodwin (BKA). The FRAS trophy for individual furnished was won by Mrs J. Salisbury (Harlow AS). Results are as follows:

Club furnished: 1, United; 2, Harlow. Individual furnished: 1, Mrs J. Salisbury; 2, Mrs R. Cunell (United); 3, Mrs R. Cunell; Barbs: 1, Mr & Mrs. Hubert (SLAD); 2, Mr J. Danson (Harlow); 3, Mr T. Woolley (Harlow); Characins: 1, Mrs J. Mardoch (Harlow); 2, Mr R. Kettle (Harlow); 3, Mrs S. Hodges (R. Green); Cichlids: 1, Mrs B. Cunell; 2, Mrs J. Mardoch; 3, Mr & Mrs Hubert; Dwarf cichlids: 1 & 2, Mr W. Goodwin (BKA); 3, Mr D. Giles (Harlow); Labyrinths: 1, Mrs S. Hodges (R. Green); 2, Mrs J. Mardoch; 3, Mr T. Woolley; Fishers: 1, Mrs B. Cunell; 2 & 3, Mr W. Goodwin; 3, Mr E. Harter (Harlow).

Tropical catfish: 1, Mr C. Trowbridge; 2, Mr M. Neags (Dunston); 3, Mr R. Bowock (Walthamstow); Corydoras: 1, Mr P. Mould (Blechnley); 2, Mr K. Adams (SLAD); 3, Mr R. Bowes; Rastros: 1, Mrs I. Mardoch; 2, Miss Anne (H.A.P.A.); 3, Mr P. Coyle (Ind); Dorsos: 1, Mr R. Bowes; 2 & 3, Mr R. Kettle; Loaches: 1, Mr R. Bowes; 2, Mr T. Woolley; 3, Mr & Mrs Keen (Bury); A.o.v. egg layers: 1 & 2, Mrs S. Hodges (R. Green); 3, Mr D. Adams; Pairs egg layers: 2 & 3, Mr D. Adams; 3, Mr D. Wright; Pairs live-bearers: 1, Mr R. Kettle (Harlow); 2, Mrs I. Mardoch; 3, Mr R. Goldard (Harlow).

Guppies, male: 1, Mrs B. Quirell (East Dulwich); 2, Mr T. Woolley; 3, Mr R. Goldard; Guppies, female: 1, Mr P. Coyle; 2, Mr & Mrs Harbin; 3, Mr R. Ott (Haverhill); Swordtails: 1, Mr & Mrs Harbin; 2, Mr & Mrs Katz; 3, Mr J. Bennett (Harlow); Platys: 1, Mr W. Goodwin (BKA); 2, Mr R. Bowes (Ind.); 3, Mr B. Oxford (SLAD); Mollies: 1 & 2, Mr P. Hayes (Blechnley); 3, Mr R. Kettle (Harlow); A.o.v. live-bearers: 1, Mr S. Cunell (United); 2, Mr R. Bowes (Ind.); 3, Mr K. Quirell; Breeders egg layers: 1, Mr D. Calver (Bodford); 2, Mr W. Matthews (Harlow); 3, Mr D. Mardoch (Dunston); Breeders livebearers: 1, Mr J. Lambert (Harlow); 2, Mr R. Oxford (SLAD); 3, Mr T. Gunn (Dunston).

THE BRISTOL TROPICAL FISH CLUB were fortunate during the summer months in being provided with two outstanding speakers. The first was Mr Barrie Evans who, together with a fellow-member from Weston-super-Mare, presented a slide show devoted to a wide spectrum of tropical fish that they had kept with special interest. The quality of presentation and the slides were a lesson in themselves and it is hoped to encourage a return visit in the not too distant future. During the interval a table show was held with the following results: Labyrinth, open and novice: 1, Mr K. Gray; 2 & 3, Mr N. Gray; Angela, open and novice: 1 & 3, Mr N. Gray; 2, Mrs K. Martin. The second meeting was indeed rather special, the guest speaker being Mr Roy Skipper—the authority on discus. His subject naturally was his speciality aided by slides he had taken which all added up to a truly professional lecture. The club would like to repeat their thanks for the care taken in his presentation and for his journeying the considerable distance from Hemel Hempstead to appear at the meeting. The interval table show provided the following results: dwarf cichlids, open and novice: 1, 2 & 3, Mr N. Gray; A.o.v. cichlids, open & novice: 1, 2 & 3, Mr N. Gray.

FRAS JUDGES at the **BRIGHTON & SOUTHERN AS** open show were Mr R. Esson, Mr B. Baker, Mr D. Hancock, Mr P. Ginger, Mr H. Towell, Mr H. Armitage and FGA Judge, Mr R. Elmes and from the 270 entries they made the following awards: best single guppy, Mr & Mrs Brock; best opposite sex guppy, Mr D. Super; best breeders team of guppies, Mr & Mrs Brock. The best fish in show was an orange chromide owned by Mr S. Freemantle (Gosport). Results are as follows:

Ad, individual furnished aquaria: 1, Mr B. Salisbury; 2, Miss Salisbury; 3, Mr Warr; 4, Mr J. Sheard; 5, Mr H. Maddison; 6, Mr R. Daley; 7, Mr P. Coyle; 8, Mr J. O. Wilson; 9, Mr D. Super; 10, Mr T. Taylor; 11, Mr R. Bowes; 12, Mr D. Super; 13, Mr J. Barber; 14 & 15, Mr & Mrs Corbin; 16, Mr & Mrs J. W. Blackwell; 17, Mr H. Maddison; 18, Mr & Mrs D. Hanson; 19, Mr & Mrs J. Burtin; 20, Mr J. Sheard; 21, Mr J. W. Blackwell; 22, Mr R. Hartney; 23, Mr & Mrs Bowes; 24, Mr J. Freemantle; 25, Mr J. Chambers; 26, Mr T. B. Adams; 27, Mr K. Cough; 28, Mr C. W. Jones; 29, Mr & Mrs Corbin; 30, Mr R. Bowes; 31, Mr D. Hanson; 32, Mr P. Buss; 33, Mr P. Skipper; 34, Mr H. Maddison; 35, Mr D. Super; 36, Mr R. G. Rose; 37 & 38, Mr R. Bowes; 39 (FRAS Championship trophy); 40, Mr R. Daley; 41, Mrs S. Hodges; 42, Mr A. M. Kinsey; 43, Mr P. Coyle; 44, Mr D. Hanson; 45, Mr A. J. Mephans; 46, Mr & Mrs J. D. Wilson; 47, Mr A. J. Mephans; 48, Mr & Mrs Fagan; 49, Mr A. J. Mephans; 50, Mr J. W. Blackwell; 51, Mr & Mrs

Yates, No. 1; Mr J. W. Blackwell; 2, Mr S. Dwyer; 3, Mr D. Soper (Dobbs); Mr V. P. Vowles; 4, Mr K. Whiting; 5, Mr J. H. Wilson. Best angelfish and cichlids: 1, R. J. Lee; 2, D. Wilson; 3, Mr V. R. Hunt; 4, J. & J. Mr V. B. Hunt; 5, Mr V. P. Vowles.

AT THE NORTH STAFFS, AS open show at the Victoria Hall, Hinley, there were 445 entries from 23 different societies. The show also included two Siamese fighters entered by Mr Eric McQuade of Willswdale, Canada. A silver shank owned by Mrs H. Williams from Crayke won the Cadman Cup for the best fish in the show, and the same fish won the Clarke Tankard for the best tropical section. Miss J. Gullane of Huxton A.S. won the Albert Hall trophy for the best junior exhibit. Other trophies awarded were: the Ken Ankers Rose Bowl for the best champion, Mr W. Hickman (Dudley AS); the A. Ford plaque for best cichlid, Mrs J. Carney (Cannock AS); the Aquarius trophy for best breeders livebearer, Mr & Mrs Thoms (Northwich AS); the GSH trophy for best breeders egglayer, Mr J. E. Slane (Ottam AS) who incidentally also won it last year. The R. J. Ankers shield for best catfish was won by Mr J. Phillips (Whitchurch AS); the Lily Ankers shield for best guppy, Mr A. Milfin (N. Staffs); the J. K. Booth Rose Bowl for best killifish, Mr R. Hughes (Stons AS); the W. J. A. Lockert shield for best mandarin, Mr W. Day (N. Staffs.); the Colin McNeel shield for the best danio, Mr H. Webb (N. Staffs.); Mrs L. Ankers won the Goodwin trophy for the best lady exhibit. The North Staffs. AS also held an art competition for children who attend Sneyd Green School. The Society's committee had a very difficult time judging the pictures but Class A won the Milfin Art Shield, Clare Casey and P. Kordyvel won the silver cups for the best individual picture and one picture; by Miss Julie Agn, was so outstanding that it was decided to award it a special prize of a small rose bowl. Altogether approximately 900 people visited and enjoyed the show. The full results of the open show are as follows:

44. 1, Mr J. E. Slane (Ottam, 83); 2, Mr & Mrs Puckin (Dob, 81); 3, Mr J. Lee (Dob, 84); 4, Mr & Mrs Thorne (Northwich, 77); 5, Mr T. Hughes (S&L, 75); 6, Mr G. C. Brockhouse (J. Gornhill, 75); 7, Mr D. Clegg (N. Staffs, 72); 8, Mr R. Darlow (D. Rogent, 72); 9, Mr R. Holmes (D. Rogent, 71); 10, Mrs J. Corney (Cannock, 77); 11 & 12, Mr W. Day (N. Staffs, 75, 76); 13 & 14, Mr W. Hickman (Dudley, 77, 76); 15, Mr M. Thomas (J. Gornhill, 76); 16, Mr A. James (N. Staffs, 75); 17, Mr R. Harley (75); 18, Mr P. Laine (Stons, 73); 19, Mr R. C. Hadden (Dob., 84); 20, Atwood & Williams (Rabery, 74); 21, Clarke Bros. (N. Staffs, 74); 22, Mrs H. Williams (N. Staffs, 77); 23, Mr J. Lee (Dob, 86); 24, Mr A.

Miss (Huddersfield, 74); 25, Mr L. Ankers (Dob, 82); 26, Mr W. Hickman (76); 27, Clarke Bros. (N. Staffs, 75); 28, Mr R. Brown (74); 29, Mr R. Holmes (71); 30, Clarke Bros. (76); 31, Mr J. Phillips (Whitchurch, 76); 32, Mr A. Milfin (74); 33, Mr E. S. Booth (74); 34, Clarke Bros. (76); 35, Mr C. Bass (N. Staffs, 74); 36 & 37, Mrs B. Bailey (Observed, 76); 38, 1, Mr R. Brown (74); 2, Mr G. C. Brockhouse (J. Gornhill, 74); 3, Mr G. Swainfield (74); 39, 1 & 2, Atwood & Williams (Rabery, 75 & 74); 40, Mr & Mrs Gido (Huddersfield, 74); 41, Miss J. Bailey (Observed, 74); 42, Mr A. Moorey (Stons, 72); 43, Atwood & Williams (Rabery, 71); 44, 1, Mr A. Milfin (74); 2 & 3, Mr R. Moore (N. Staffs, 72 & 71); 45, Mr & Mrs Thorne (Northwich, 74); 46, 1, Mr P. Laine (74); 2, Mr R. Moore (74); 3, Mr P. Laine (74); 46, 1, Mr A. H. Webb (N. Staffs, 74); 2, Clarke Bros. (74); 3, Mrs H. Williams (74); 46, 1, Mr R. Evans

(Stons, 74); 4, Mr M. Thomas (L. Gornhill, 77); 5, Mr R. Evans (74); 46b, 1, Mr W. Day (N. Staffs, 74); 2, Mr J. Gullane (Huxton, 74); 3, Mr J. Carney (Cannock, 74); 4, Mr B. Hughes (74); 4 & 5, Mr J. Lee (Dob, 75 & 74); 47, 1, Mrs H. Williams (N. Staffs, 76); 2, Mr K. Ankers (77); 3, Mr R. Brown (75); 48a, 1, Mr J. Gullane (Huxton, 77); 2, Mr F. Barnett (Dob., 80); 3, Mr M. Clarke (N. Staffs, 74); 48b, 1 & 2, Mr A. Moss (Huddersfield, 74 & 74); 3, Mr M. Clarke (56); 49, 1, Mr J. Gullane (Huxton, 72); 2, Mr J. W. Brown (Observed, 77); 3, Mr J. E. Slane; 4, Mrs E. C. Harris (Ottam, 74, 75 & 66); 42a, 1, Clarke Bros. (74); 2 & 3, Mr R. Moore (74, 73).

THE annual Open Show of the OLDHAM & DAS, held at Werneth Park Oldham, had a record number of entries, 474, and the best fish in

FEDERATION



NEWS

There's Only
One British
Federation

FOR many years, 44 in fact, there have been some doubts regarding the meaning of the B in the initials of FBAS. Many Societies' committees seem to be labouring under the delusion that the Federation consists of a few London clubs banded together to form a local group.

Let us now put the record straight: the Federation is not London-based and based. It has affiliated societies stretching from Cornwall to Scotland, it has affiliated societies in Wales and Ireland. It has contacts as far afield as New Zealand, Alaska, France, Holland and Canada. Many specialist organisations are 'in'—such as the British Cichlid Association, British Key-Keepers and the British Marine Aquarists' Association. Many branches of both the FGBS and the FGA are affiliates and of course the Irish Federation has been a member for years. The B does not stand for Bethel Green; it stands for the societies from Barry to Boston, from Brighton to Blyth; it stands for a highly organised, closely knit federation of the majority of all the clubs in the U.K. In other words the B stands for British. Make no mistake about that!

The Federation has been active in setting up Area Associations throughout the country, the latest being in East Anglia and the Midlands. Societies in the various areas are given every encouragement to set up their own Judges and Speakers panels and shows within the democratically agreed FBAS Rules & Standards without the need to refer to 'Whitehall' on every occasion.

Over 180 societies, i.e. over 40% of all known U.K. societies, are enjoying the advantages of affiliation. Ask them. Truly then, we are The British Federation and members of clubs are urged to vote for affiliation to the only national organisation representing their interests throughout the country—then it will be a 'B' good show!

One final B in harness: the Federation has nothing but admiration for the sterling work put in by the various local associations. Do not let yourselves be persuaded that the Federation is attempting to usurp (I do not like the word 'poach'; that is illegal!) these associations; it is not. What it is attempting to do is to unite all the societies, groups and associations, or whatever they are called, under one banner with a common aim: rationalisation of the multitude of fish standards, judging standards and show rules that besame us today. Surely these aims are the aspiration of all good hobbyists? Good organisation is essential to any pursuit; ours is superlative, why not join in and by so doing strengthen all concerned.

I have written this letter not to improve our already strong financial position, but because I most fervently believe that only a single British organisation can improve communications, leading to rationalisation and administrative economies, all of which will benefit the societies.

DICK DOVE, Treasurer FBAS

show award was won by Mrs B. Booker from Morecambe Bay, with a *Tilapia*. The results are as follows:

Guppies: 1, Mr G. Thickbroom; 2, Mr & Mrs Cobb (Belle Vue); 3, Mr A. Moss (Huddersfield). **Mollies:** 1, Mr G. Thickbroom; 2, Mr A. Arberton (Grimwood); 3, Mr R. Dyson (Blackpool). **Swordtails:** 1, Mr A. Jones (Wellbeck); 2, Susan Clarke (Barnsley); 3, Mr C. Beckenham (Oldham). **Pistys:** 1, Clark Bros. (N. Staffs.); 2, Susan Clarke; 3, Mr M. Harris (Castleford).

Anabantids: 1, Michelle Jones (Valley); 2, Mr & Mrs Gates (Castleford); 3, Mr & Mrs Cohen (Castleford). **Fighters:** 1, Mr & Mrs Toyne (Sheffield); 2, Mr S. Holland (BKA); 3, Mr I. Bewick (Oldham). **Small barbs:** 1, 2 & 3, Mr F. E. Gregory (Oldham). **Large barbs:** Mr T. Smith (Sheffield); 2, Mr M. Jones; 3, Mr & Mrs Cohen. **Small nchids:** 1, Mr R. Dyson (Blackpool); 2, Mr B. Stevens (Castleford); 3, Mr S. Hooton (Sandgrounders). **Large cichlids:** 1, Mrs B. Booker; 2, Mr J. Rowbottom (Hyde); 3, Master F. Cobb (Belle Vue). **Angels:** 1, Mr J. Rowbottom; 2, Mr E. Healey (Hyde); 3, Mr & Mrs E. Smith (Sheffield). **Small characins:** 1, Mr & Mrs Gates; 2, Mr & Mrs Cobb; 3, Mr J. Rowbottom. **Medium characins:** 1, Mrs B. Booker; 2, P. & H. Bachelor (Loyne); 3, Mr & Mrs Norris (Loyne). **Large characins:** 1, Mr J. A. Whiteley (Aireborough); 2, Clarke Bros. (N. Staffs.); 3, Mr P. Mulley (Ind.). **Rasboras:** 1, Mr H. Jackson (Keithley); 2, Mr J. A. Whiteley (Aireborough); 3, Mr E. Greenwood (Nelson). **Danios & minnows:** 1, Mr F. E. Gregory; Mr A. Moss (Huddersfield); 3, Mr E. & H. Bachelor. **Toothcarps:** 1, Mr H. Baldwin (FGA); 2, Mr B. Forester (BKA); 3, Mr E. Birchwood (Oldham). **Corydoras:** 1, Mr K. Brunt (N. Staffs.); 2, Mr & Mrs Norris; 3, Mr & Mrs Cobb (Belle Vue). **A.o.v. catfish:** 1, P. & H. Bachelor; 2, Mr & Mrs Gates; 3, Mr A. Davies. **Loaches:** 1, Mr F. E. Gregory; 2, Mr R. Walker (Morecambe Bay); 3, Mr P. Stanforth (Valley).

Breeders egglayers: 1 & 2, Mr R. Dyson; 3, Mr & Mrs Cohen. **Breeders livebearers:** 1, Mr A. Moss; 2, Mr G. Thickbroom; 3, Mr & Mrs Gates. **Pairs egglayers:** 1, Mr F. E. Gregory; 2, Mr K. Stafford; 3, Mr P. Whelan (Blackburn). **Pairs livebearers:** 1, Mr J. A. Whiteley; 2, Mrs S. Newbold (Wellbeck); 3, Mr A. Jones (Wellbeck). **Fancy goldfish:** 1, Mr C. H. Whistey (Accrington); 2 & 3, Mr S. Walsh (Accrington). **Common goldfish:** 1, Mr C. H. Whistey; 2 & 3, Mr & Mrs Toyne (Sheffield). **A.o.v. coldwater:** 1, 2 & 3, Mr S. Walsh. **A.o.v. tropical:** 1, P. & H. Bachelor; 2, Mr G. Thickbroom; 3, Mr K. Brunt. **Mini-furnished jars:** 1, Mr E. Birchwood; 2, Mr A. Moss; 3, Mr E. Birchwood. **Plants:** 1, Mr A. Millin (Staffs.); 2 & 3, Mr J. Tonge (Oldham).

Breeders egglayers: 1 & 2, Mr R. Dyson; 3, Mr & Mrs Cohen. **Breeders livebearers:** 1, Mr A. Moss; 2, Mr G. Thickbroom; 3, Mr & Mrs Gates. **Pairs egglayers:** 1, Mr F. E. Gregory; 2, Mr K. Stafford; 3, Mr P. Whelan (Blackburn). **Pairs livebearers:** 1, Mr J. A. Whiteley; 2, Mrs S. Newbold (Wellbeck); 3, Mr A. Jones (Wellbeck). **Fancy goldfish:** 1, Mr C. H. Whistey (Accrington); 2 & 3, Mr S. Walsh (Accrington). **Common goldfish:** 1, Mr C. H. Whistey; 2 & 3, Mr & Mrs Toyne (Sheffield). **A.o.v. coldwater:** 1, 2 & 3, Mr S. Walsh. **A.o.v. tropical:** 1, P. & H. Bachelor; 2, Mr G. Thickbroom; 3, Mr K. Brunt. **Mini-furnished jars:** 1, Mr E. Birchwood; 2, Mr A. Moss; 3, Mr E. Birchwood. **Plants:** 1, Mr A. Millin (Staffs.); 2 & 3, Mr J. Tonge (Oldham).

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JUDGES Mr C. A. T. Brown, Mr F. Tomkins, Mr B. Baker, Mr P. Ginger, Mr H. Towell and Mr B. Sargent awarded the FBAS trophy (Class B) to Mr A. Blake (Basingstoke) for a *Platanio* barb, at the **WELLING & DAS OPEN SHOW**.

Other results were: **B:** 1, Mr E. R. Bird (SPADG, tin foil); 2, Mr E. R. Bird (Gerson fin); 3, Mr A. Blake (Basingstoke, *platanio* barb). **C:** 1, Mr D. Barnett (Leicester P. emperor tetra); 2, Mr E. R. Bird (*Mydopolis aeneus*); 3, Mrs B. Oakley (Dumtable, cardinal). **D:** 1, May Netherell (*Tilapia zillii*); 2, G. & S. (blue nile); 3, Mrs B. Oakley (severum). **E:** 1, May Netherell (black angel); 2, Phyl Pine (Wellingborough, black angel); 3, Mr Eastbury (Leamington, black angel). **F:** 1, Mr W. Hickman (P. arborea); 2 & 3, Mr F. Vicker (ELAPA, boreli). **G:** 1, Mr J. Phillips (Wellingborough,

Ophreomus garwayi); 2 & 3, Mr F. Underwood (SPADG, fighter). **F:** 1 & 2, Mr D. Calver (Bedford, *gambusia australis*); 3, Mr F. Underwood (*playfairi*). **G:** 1, Mr E. R. Bird (*Loricaria silvatica*); 2, Mr R. Goodson; 3, Mr E. R. Bird (*Hoplosternum thoracatum*). **H:** 1, Mr V. Marsh (Ealing, *schwarzii*); 2, Mr F. Marsh sr. (Ealing, *varicellatus*); 3, May Netherell (*Brochis*). **J:** 1, Mr P. Wallis (Wellingborough, *R. entostemon*); 2, Mr D. Barnett (*borapetensis*); 3, Mr D. Page (Corby, *R. cephalostoma*). **K:** 1, Mr L. R. Barker (Lebra); 2, Mr P. A. Moya (Bletchley, pearl dano); 3, May Netherell (White Cloud). **L:** 1, Mr R. Goodson (clown loach); 2, Mr R. Underwood (clown loach); 3, May Netherell (*Betta splendens*). **M:** 1, Mr R. Goodson (free set); 2, Mr & Mrs Rossiter (Wellingborough, *Dominator maculatus*); 3, Mr P. Hunt (Thornton, redfin shark). **N:** 1, Mrs V. Marsh (*Osteochilus vittatus*); 2, Mr F. Marsh (*R. borapetensis*); 3, Mr D. H. White (Bedworth, *velifera mollis*). **O:** 1, Mr F. Marsh (Ealing); 2, Mr E. A. Holmes (Banbury); 3, Mr & Mrs Shipman (Growtham). **R:** 1, Mrs Cruikshank (Ealing, *varicellatus*); 2, Mr P. A. Moya (Bletchley, *varicellatus*); 3, Mr C. Pratt (Bedworth, high fin). **S:** 1, Mr P. A. Moya (*velifera*); 2, May Netherell (*bicus spherocaps*); 3, G. & S. (*velifera*). **T:** 1, Mrs Cruikshank (*Pseudorasbora parva*); 2 & 3, Mr D. H. White (Bedworth, red swordtail). **U:** 1, Mr F. E. Watts (GPAAS); 2 & 3, G. & S. **V:** 1, Mr A. Robinson (Northampton, fantail); 2, Mr N. E. Cocker (Suffolk Aquarists, twin tail). **X:** 1, Mr M. Pearson (ELAPA, *usipati*); 2, Mr F. Vicker (ELAPA, boreli); 3, Mr J. Boss (ELAPA, chequer barb). **Xo:** 1, Mr D. H. White (moquito); 2, Mr L. R. Baker (Rimford, black play); 3, Mr D. H. White (moquito).

THERE were 333 entries at the **OSRAM AS** open show where the best fish in the show award went to Mr F. Gregory of Oldham AS and the best coldwater fish award to Mr C. Whistey of Accrington. The judges were Mr H. Loder, Mr I. Wood, Mr P. Moorhouse and Mr L. Baxter; the prizes were presented by Councillor H. Bennett J.P., who congratulated the exhibitors on the quality of their exhibits, and the Osram Society on the promotion of the Show. The results are as follows:

Anabantids: 1, Miss A. Gregory (Nelson); 2, Mr J. Howard (Valley); 3, Mr S. Locke (Salford). **Fighters:** 1 & 3, Mr S. A. Holland (Sunnybrow); 2, Mr W. Armstrong (Independent). **Small barbs:** 1, 2 & 3, Mr F. E. Gregory. **Large barbs:** Mr J. Howard; 2, Mr B. Walker (Morecambe Bay); 3, Mr G. Goodman (Oldham). **Labras, sharks and foxes:** 1, Mr N. Turner (Minenden); 2, Mr R. I. Paine (Merseyside); 3, Mr J. Gullane (Buxton). **Characins, small:** 1, Mr F. E. Gregory (Oldham); 2, Mr P. Whelan (Blackburn); 3, Mr H. Marshalea (Oldham). **Characins, medium:** 1, P. & H. Bachelor (Loyne); 2, Mr R. Walker; 3, Mr D. Greenwood (Nelson). **Characins, large:** 1, Mr G. Platt (Osram); 2, P. & H. Bachelor; 3, B. & B. Booker (Morecambe Bay). **Cichlids, dwarf:** 1, Mr P. Clarkson (Independent); 2, Miss J. Gullane (Buxton); 3, Mr G. Goodman (Oldham). **Cichlids, angels:** 1, Mr J. Healey (Hyde); 2, Mrs A. Berry (Valley); 3, Mr R. Beaumont (Independent). **Cichlids, a.o.v.:** 1, Mr & Mrs Thorne (Northwich); 2 & 3, Mr D. Whiteside (Blackpool). **Toothcarps:** 1, Mr S. A. Holland; 2, Mr M. Tongue; 3, Mr J. Roberts. **Rasboras:** 1, Mr D. Greenwood; 2, Mr & Mrs Beckenham; 3, P. & H. Bachelor. **Danios:** 1, Mr D. Whiteside; 2, Mr & Mrs Beckenham; 3, Mr A. Moss (Huddersfield). **Minnows:** 1,

Mr H. Marshalea; 2, Mr P. E. Gregory. **Guppies:** 1, Mr A. Moss; 2, Mrs Laid (Valley); 3, Mrs L. C. Heap (Keighley). **Swordtails:** 1 & 3, Mr & Mrs Beckenham; 2, Mrs A. Berry. **Mollies:** 1, Mr H. Waring (Lyham); 2 & 3, Mr J. Howard. **Platys:** 1, Mr P. Whelan (Blackburn); 2, Mr & Mrs Kennedy; 3, Mr A. Moss. **A.o.v. livebearers:** 1 & 2, Mr A. Moss; 3, Mr P. Whelan. **Loaches:** 1, Mr F. E. Gregory (Oldham); 2, Mr H. Marshalea; 3, Mr & Mrs Beckenham. **Corydoras:** 1, Mr H. Waring; 2, Mr & Mrs Dawson (Osram); 3, Mr M. Tongue. **Catfish, a.o.v.:** 1, Mr D. Greenwood; 2, Mr & Mrs Shaw; 3, Mr B. Walker.

Goldfish: 1 & 3, Mr C. H. Whistey (Accrington); 2, Mr H. Penhall. **Shubunkins:** 1, Mr H. Penhall; 2 & 3, Mr C. H. Whistey. **Veiltail, orandas & lionheads:** 1, 2 & 3, Mr C. H. Whistey. **Fantails:** 1 & 2, Mr C. H. Whistey; 3, Mr H. Penhall. **Moors:** 1 & 2, Mr C. H. Whistey; 3, Mr S. Walsh. **A.o.v. Asia or U.S.A.:** 1, 2 & 3, Mr S. Walsh. **A.o.v. European:** 1, Mr H. Penhall; 2, Mr G. H. Whistey; 3, Mr S. Walsh. **Breeders egglayers:** 1, Mr & Mrs Thorne (Northwich); 2, Mr J. Roberts; 3, Mr A. Axon. **Breeders livebearers:** 1, Mr & Mrs Thorne; 2, Mr A. Moss; 3, Mr D. Whiteside. **A.o.v. not listed:** 1, P. & H. Bachelor; 2, Mr D. Grogan (Blackburn); 3, Mr D. Whiteside. **Pairs egglayers:** 1, Mr A. Moss; 2, Mr F. E. Gregory; 3, Mr D. Whiteside. **Pairs livebearers:** 1, Mr W. Trotman (Bolton); 2, Mrs Lard; 3, Mr A. Axon. **Junior section:** 1, W. L. Booker (Morecambe Bay); 2 & 3, J. Boardman (Osram).

AT the **BRISTOL AS** open show Mr R. J. King took the Mabel Davis trophy for the best exhibit in the show and the Eric Butler Cup for the best coldwater fish with a magnificent veiltail. The B. T. Child shield for the second best coldwater fish was taken by Mr A. E. Roberts for a Bristol shubunkin. Mr Roberts also took the Denman cup for the highest number of points in the show. An *Apatogramma zambezi* won the Lewis Cup for the best tropical fish for Mr R. C. Hyett and the H. J. Shepherd Cup for the best egglayer. Mr N. Gray, with a golden sailfin mollie, took the Percy Gibbs Cup for the best livebearer. The remainder of the results are as follows:

Goldfish: 1, & W. Butler Cup, Mr T. Hampshire; 2 & 3, Mr W. Ham. **Bristol shubunkins (5 in.):** 1, & Mid Somerset Cup, Mr H. J. Whiting; 2, Mr H. T. Jago; 3, Miss C. Rupert. **Bristol shubunkins (5 in.):** 1, & T. T. Will Cup, Mr A. E. Roberts; 2 & 3, Mr D. S. Landgren. **Veiltails:** 1, & L. J. Spencer trophy, Mr R. J. King; 2, Mr S. Tibble; 3, Mr A. E. Roberts. **Moors:** 1, 2 & 3, A. D. J. Brooks Cup, Mr A. E. Roberts; 1, Mr R. J. Bennett. **Teleosts, lionheads, celestials:** 1, Mr R. J. King, BAS Cup; 2, Mr D. Headford; 3, Mr L. G. Emery. **Orandas:** 1, & Jack Savage Cup, Mr R. J. King; 2, Mr A. E. Roberts; 3, Mr D. Headford. **Nymphs & comets:** 1 & 2, Mr L. G. Emery; 3, Mr D. Headford. **Scaled fantails:** 1, 2, & A. W. Rudge Cup, Mr V. Collins; 3, Mr C. J. Cotterill. **Calico fantails:** 1 & 2, & BAS Cup, Mr F. Radford; 3, Mr H. T. Jago. **Koi, a.o.v. pondfish:** 1, & G. Harper trophy, Mr V. Collins; 2, Mr C. J. Cotterill; 3, Mr P. Chadley. **Bristol shubunkins bred '72:** 1, & Mrs Hunsden Cup, Mr H. J. Whiting; 2, Mr R. Osram; 3, Mr L. G. Emery. **Moors bred '72:** 1, 2, 3, & C. F. Whitehead Cup, Mr A. E. Roberts. **A.o.v. fancy fish bred '72:** 1, & R. G. Watson cup, Mr G. J. Ball; 2, Mr R. J. King; 3, Mrs A. F. Wickes. **Breeders, singletails:** 1, 2 & 3, & S. J. Davis

single, Mr L. G. Emery. Breeders, 19-in-tails: 1, & Forest Coldwater Breeders Cup, Mrs A. P. Wicks; 2, Mr L. G. Emery; 3, Mr S. TOSSE. Brown shubunkers, matched pairs: 1, & Berrill Cup, Mr H. J. Whiting; 2, Mr D. S. Landon; 3, Mr W. G. Bryant. Native shubunkers: 1, & Lewis Emery Cup, Mr P. Scott; 2, Miss C. Rapert; 3, Mr P. Cleather. Furnished aquaria, freshwater: 1, & Zouza Webb Cup, Mr C. J. Cotterill. Aquatic plants, freshwater: 1 & 2, Mr R. M. Williamson; 3, Mr C. J. Cotterill. Aquatic plants, tropical: 1 & 2, Miss H. Morgan; 3, Mr D. J. Saphar.

Fighting fish: 1, & Lowell Babine Cup, Mr P. A. Lewis; 2, Mr T. Hampshire; 3, Mr T. Hampshire. Laboratory: 1, & J. F. Robinson Cup, Mr D. Noble; 2, Mr T. Hampshire; 3, Mr N. Gray. Bubs: 1, & J. H. King Cup, Mr R. C. Hyatt; 2, Mr N. Gray; 3, Mr A. Gilber. Canteens: 1, & H. E. J. & O. E. Organ Cup, Mr R. R. Dor; 2, Mr W. Hens; 3, Mr D. Noble. A.A.V. chorales: 1, & Frank Storer trophy, Mr R. C. Hyatt; 2 & 3, Mr M. J. Howe. Cichlids: 1, & J. J. Phillips Cup, Mr R. C. Hyatt; 2 & 3, Mr D. Noble. Koi fish: 1, & 2, & Donaldson Brown Cup, Mr T. Hampshire; 3, Mr N. Gray. A.A.V. agglivers: 1 & 2, & M. Bell trophy, Mr N. Gray; 3, Mr D. Noble. Carbs: 1, Mr D. Noble; 2, Mr P. A. Lewis; 3, Mr P. A. Lewis. Guppies, unpaired: 1 & 2, Mr P. A. Lewis. Guppy, female: 1, & 2, Mr H. H. Bell. Swordfish: 1, & Kevanham Cup, Mr R. K. Day; 2, Mr T. Hampshire. A.A.V. freshwater: 1, & 2, & 3, Mr N. Gray. Breeders, agglivers: 1, & Sarsgater Cup, Mr T. Hampshire; 2, Mr D. J. Saphar; 3, Mr R. C. Hyatt.

TORBAY AS held their fourth Open Show at the end of September at Torquay Town Hall. Judges Mr R. Coombes, Mr C. W. Cornwall, Mr R. Matley, Mr T. Ryder, Mr J. Stillwell, and Mr F. Tomkins had approximately 500 entries from which to select the winners of the 33 classes. Mrs P. Brown, the Society's PRO, reports: "On these occasions invariably one anticipates some disaster and we were just heaving sighs of relief as we put the finishing touches to our furnished tanks when a warning shout caused a stampede to the exit that would have brought joy to the heart of any film director—the warning given concerned the escape of a young competitor's salamander—all 3 inches of it. For a while we thought we had a flop on our hands, but once the salamander was caught and it was realised that the escapee was not the 25 ft. snake on the Tropical Fish House of Exeter's trade stand, the contestants and public returned. President Mr T. Hassell, taking his first day off after a busy season at his hotel, strolled along to add a boost to the Society's morale and found the exhibits admirable until he came to the Seized Pairs section where with thoughts of Lord Longford troubling his mind he had hastily to avert his gaze from the antics of the guppy pair and hope that no member of the general public was watching."

The best fish in show award and gold pin went to an *Andoras gyves* entered by Mr D. Smirthwaite of Torbay AS. Mr F. Orman of Torbay won the FRAS Championship trophy (class Ca) with a

THE Fir, Feather & Aquaria Show being held on 25th November at the King's Hall, Lower Clapton Road, London E3 (by the Essex, North & East London Societies) comprises two inter-club furnished aquaria classes, an individual aquascap class, an individual miniature furnished aquaria class, 22 tropical fish classes, 6 coldwater classes and 1 plant class. Show secretary is Mr Ron Kerridge and last date for receipt of entries is Monday, 13th November. Schedules may be obtained from the General Manager, Baths & Civic Recreation, London Borough of Hackney, 59 Lower Clapton Road, London, E3.

cardinal. The award for best livebearer went to Mrs J. Griffiths; best shark, Mr H. Gardener; best marine, Mr L. Doubleday; best coldwater, Mr R. King; best junior, Master J. Gardener. Detailed results were:

B. 24 entries: 1, Mr A. Kirby (Plymouth, 82); 2, Mr J. Bragg (Torbay, 78); 3, Mr C. Turner (Cardiff, 78). **C.** 12 entries: 1, Mr T. Mudge (Exeter, 80); 2, Mr J. Gardener (Plymouth, 81); 3, Mrs R. Lucas (Plymouth, 80). **Ca.** 4 entries: 1, Mr F. Orman (Torbay, 77); 2, Master C. Titcher (Torbay, 76); 3, Mr D. Dove (Independent AS, 75). **D.** 22 entries: 1, Mr D. Noble (Bristol, 78); 2, Mr D. Vickers (Ulverston, 75); 3, Mr T. Mudge (77). **Da.** 18 entries: 1, Mr H. Gardener (Plymouth, 77); 2, Mrs L. Clarke (Plymouth, 75); 3, Mrs Kirby (Plymouth, 75). **Db.** 14 entries: 1, 2 & 3, Mr J. Bragg (81, 78, 78). **E.** 16 entries: 1, Mrs O. Lay (Plymouth, 81); 2, Mr D. Dove (77); 3, Mr T. Woodley (Torbay, 76). **Ea.** 18 entries: 1, Mr T. Hampshire (Gate & Bristol AS, 77); 2, Mr C. Hocking (Plymouth, 77); 3, Mr C. Turner (76). **F.** 16 entries: 1, Mr D. Dove (80); 2, Mrs O. Lay (79); 3, Mr T. Woodley (78). **G.** 12 entries: 1, Mr D. Smirthwaite (Torbay, 81); 2, Mr M. Poole (Torbay, 79); 3, Mr T. Woodley (78). **H.** 21 entries: 1, Mr D. Norman (Dorchester, 77); 2, Mr A. Kirby (78); 3, Mr M. Lander (76). **I.** 18 entries: 1 & 2, Mr E. Earnshaw (Tonson, 78, 77); 3, Mr D. Norman (74). **K.** 14 entries: 1, Mr J. Bragg (74); 2, Mr J. Edwards (Llanrwst Major, 74); 3, Mr J. Davis (Torbay, 74). **L.** 8 entries: 1, Mr D. Vickers (79); 2 & 3, Mr A. Kirby (77, 77). **M.** 14 entries: 1, Mr L. Doubleday (Torbay, 76); 2, Mr H. Gardener (74); 3, Mr T. Mudge (74). **N.** 14 entries: 1, Mr E. Earnshaw (77); 2, Mr C. Turner (Cardiff, 77); 3, Mr M. Leeder (76).

O. 11 entries: 1, Mrs Jenkins (Plymouth, 75); 2, Master D. Earnshaw (Tonson, 74); 3, Mr T. Cox (Torbay, 73). **P.** 6 entries: 1, Mr R. Wigg (Llanrwst Major, 76); 2, Mr B. Hodgson (Plymouth, 74); 3, Mr T. Bragg (74). **Q.** 17 entries: 1, Mr T. Smith (Tonson, 75); 2, Mr J. Huddie (Plymouth, 74); 3, Mr R. King (Torbay, 74). **R.** 10 entries: 1, Mr J. Davis (74); 2, Mrs J. Griffiths (Torbay, 77); 3, Mr M. Leeder (76). **S.** 18 entries: 1, Mrs J. Griffiths (74); 2, Mr D. Dove (77); 3, Mr F. Burn (Plymouth, 73). **T.** 6 entries: 1 & 2, Mr G. Fidoek (Hater, 78, 78); 3, Mr T. Woodley (78).

U-4. 11 entries: 1, Mr T. Hampshire (76); 2 & 3, Mr R. King (Torbay, 74, 74). **U-5.** 4 entries: 1, Mr D. Fidoek (80); 2 & 3, Mr R. King (76, 75). **V.** 4 entries: 1 & 2, Mr R. King (80, 78); 3, Mr G. Thompson (Torbay, 77). **W.** 11 entries: 1, Mr M. Matthews (Torbay, 80); 2 & 3, Mr G.

Thompson (75, 73). **W-4.** 4 entries: 1, 2 & 3, Mr G. Thompson (74, 76, 64). **X-6.** 14 entries: 1, Mr A. Kirby (Plymouth, 78); 2, Mr C. Turner (Cardiff, 76); 3, Mr M. Poole (74). **X-6.** 6 entries: 1, Mr C. Turner (74); 2, Mr R. Wigg (74); 3, Mr T. Woodley (76). **X-7.** 4 entries: 1 & 2, Mr R. King (76, 73); 3, Mr T. Cox (81). **Y.** 7 entries: 1 & 2, Mr L. Doubleday (Torbay BMAA, 80, 71); 3, Mr J. Stank (Torbay BMAA, 72). **Yb.** 14 entries: 1, Master D. Pathan (Torbay AS & BMAA, 80); 2 & 3, Mr L. Doubleday (78, 74). **Z.** 9 entries: 1, Mr J. Spinks (Torbay, 74); 2, Mr R. King (74); 3, Mrs R. Woodley (Torbay, 69).

MR Tom Hallett, PRO of the MANCHESTER SECTION of the FANCY GUPPY ASSOCIATION, brings us up to date on the section's activities over the last few months: "At the June meeting, there was an excellent entry of 111 for the table show—the highest entry for 3 years. Major awards went to Mr J. Hesketh for the best female in show, to Mr J. Snowden from the Lancaster section for the best male and to Mr T. Hallett for best breeders. A panel of experts gave some informative details on the selection of parent types. For the July meeting, our hard-working treasurer gave an interesting talk and slide show on Aquarium Plants. At this table show there were only 62 entries but quality was still high. Best in show and best male awards went to chairman Mr Ray Young. The best female award went to Mr Alan Swann and, not to be outdone, Mr Ray Young's wife took the best breeders award.

The August meeting saw a great number of members away on holiday, but those present much enjoyed a quiz that had been well devised by Mr Jeff Hutchings from Lancaster. Best breeders and best in show awards went to Mr Alan Charlton, best male award to Mr John Hesketh and best female to Mr Alan Swann. The September meeting saw a stronger gathering with members from Lancaster and Birmingham joining us. The event of the meeting was a slide and taped lecture sent from Birmingham by Mr Malcolm Dehngpole, who was unable to attend in person. The show entitled 'Guppy U.K. 1970' included photographs of standard outlines and fish corresponding to them and was very well received. The raffle took the unusual form of having guppies as most of the prizes, but this proved so popular that it may be repeated later. Best in show and best female awards were won by Mr Ian Pecks, best male by Mr John Pecks and best breeders by Mr Danny Glens.

Anyone interested in breeding and showing guppies, please come along to a meeting at the Longsight Hotel, rear entrance to Belle Vue, Manchester, on the first Sunday of every month at 2.30 p.m.

In Brief . . .

... NEW society **LEWISHAM & DAS** meets every other Monday at temporary headquarters in The Green Man, Broomley Road, Catford. Secretary is Mr A. Jamieson, 62 Hook Lane, Welling, Kent. DA16 2DW.

... **YEovil & DAS** (FBAS) were well and truly beaten by **BOURNE-MOUTH AS** by 66 points to 29 in the semi-final of the ASAS inter-club quiz conducted by Mr Adams and Mr Ashton of Salisbury AS. Table show results were: labyrinth: 1, Mrs Forward; 2, Mr A. Rendell; 3, Mr M. Fisher. Tropical breeders: 1, Mr K. Forward; 2, Mrs Nicholls; 3, Mr M. Fisher. Coldwater breeders: 1, Mr S. Langdon; 2 & 3, Mr G. Axe. Koi carp: 1, Mr R. Heather.

... THE inaugural meeting of **BELPER & DAS** was held on 13th September and the initial response was very encouraging; further new members will be welcome—full details from Mr G. Dean, secretary, 3 Winstler Close, Belper, Derby DE5 1HW or Mr H. Gascoyne, Belper 3071.

... **WREXHAM TFS** members had a most enjoyable evening when they welcomed 43 guests at their Open Night at the Fellowship Hall, Bradley Road, Wrexham. Guests were given an insight into club activities and received help and advice on fishkeeping. On view were the entries in the table show as well as the club's library and trophies. The climax of the evening was a lecture by Mr W. L. Whitten, of Canada, on tank maintenance followed by slides of tanks and fish taken by members.

... ALTHOUGH permanent headquarters have yet to be found **THETFORD & DAS** plan to hold monthly meetings and welcome new members. Secretary, Mr P. D. Hutt, 17 Bracken Road, Thetford, Norfolk will supply all details. The Society is a member of the EAFA.

... TWO club members of long-standing, Mr H. Berger and Mr M. Brill recently entertained and enlightened fellow members of **ILFORD & DA & PS** with a talk on show standards and judging techniques for both coldwater and tropical fishes. Mr Berger used a number of his prize-winning pond-fishes as examples of the typical standards and pointings that can be achieved. Table show winners were: a.v. cichlid: 1 & 3, Mr W. Rowe (blue acara, marble angel); 2, Mrs P. Reade (ramirezi), A.v. tropical

HENDON & DAS announces with pleasure that the speaker at their fourteenth Annual Congress will be Mr Leif Christensen of Copenhagen—one of the great names on the Continent and a speaker who should not be missed. The Society's show secretary, Mr R. S. Thompson, reports: "His subject will be 'Fishes of the World', as this will be an evening that will appeal to all. We welcome everyone interested in fishkeeping and stress that this Congress is not staged just for the expert or specialist but for all those who keep fish, whether they are 'one tank' upstairs or not. Mr Christensen speaks excellent English so there will be no difficulties with language barriers. As always, the programme will be synchronised with colour slides and in this respect Mr Christensen is no mean photographer.

Refreshments are available for early arrivals and once again during the long interval, so there is every excuse to make this occasion a day out in London, especially as 11th November is also the Lord Mayor's Show". The Congress will be held in the usual venue—Whitefield Secondary Modern School, Clarendon Road, Hendon, London, NW2 on Saturday, 11th November, starting at 6.0 p.m. Tickets are available from Mr R. Maynard, Secretary of Hendon & DAS, 92 Cotswold Gardens, London, NW 2, price 30p each (20p for juniors under 16 years).

plant: 1 & 3, Mrs P. Reade (giant Hygrophila, twisted Vallis); 2, Mr W. Rowe (Cryptocoryne sp.), A.v. coldwater plant: 1 & 3, Mr Dixon, (hornwort, Myriophyllum); 2, Mr W. Rowe (hornwort).

... WHEN **DERBY REGENT AS** and **ALFRETON AS** held their interclub match, members were entertained by Mr J. Keith, a skilful magician and member of the Magic Circle. Mr B. Inman judged the 12 classes in which Derby Regent gained 50 points (Alfreton, 12).

... WHEN Mr 'Johnny' Walker of Bournemouth entertained members of **NEW FOREST AS** at their September meeting with an amusing and informative talk on his methods of producing live cultures of micro-worm, Grindal worm and white worm, he also discussed daphnia but disclosed no secrets as to the best ponds from which to obtain it in the

Mrs M. Dudley wishes to thank all the many people who so kindly sent expressions of sympathy to her in her recent sad loss. The support of so many friends in the fishkeeping fraternity has been a great help to her.

New Forest! Mr Al Paulley won in the table show class for swordtails and Mr D. Harding is that for the common goldfish.

... **VILLAGE AS** held their first meeting on 12th September at Bramhall Village Club, Cheshire. After conducting the business necessary at a first meeting, members present (about 25) watched and discussed some interesting microscope slides projected on to a screen. Daphnia a foot across looks very interesting and caused some lively discussion. Meetings are held every second Tuesday at Bramhall Village Club, Mellrose Road, Bramhall, Cheshire; secretary, Mr S. A. Heap, 208 Aldwyn Crescent, Hazel Grove, Cheshire SK7 3HN.

... **FREELANCE AC** now have many new members and at their AGM the society formulated interesting plans for the future with regard to shows, lectures and outings. Recent informative lectures have been given by chairman Mr J. Stamp on fish breeding and by vice-chairman Mr E. Stainer and show secretary Mr R. Burton on fish feeding.

... **INDEPENDENT AS** have had a triumphant year in connection with the competition between the North-West London Group of Aquarist Societies. So far they have won five of the six competitions held, in the last one winning first prize in all four classes and with club member Mrs S. Mason taking the best fish in show award with a *Rubrota jacobsoni*.

... MR Frank Tuskin (president lecturer for Beithal Green) gave a talk on Fish Diseases and Cures that proved most helpful to members of **SOUTHEND, LEIGH & DAS**. At a second meeting, a quiz organised by Mrs B. Mitchell and her husband caused a great deal of merriment to everyone.

... **CHAIRMAN** Mr E. Newman of **KNOWLE & DAS, BRISTOL** tabbed an interesting programme for the forthcoming monthly meetings at the Society's AGM. This includes a monthly table show, a furnished aquaria competition and talks by well-known speakers. At the October meeting Mr Stan Lloyd gave an excellent talk on coldwater fish which he illustrated by means of the fish he had with him. Mr Lloyd then judged the coldwater table show and awarded Mr W. Harn first and second Open Award (3, Mr J. Stirling) and first, second and third Novice to Mr J. Stirling.

... **ROEHAMPTON AS** narrowly won the inter-club competition held with **RIVERSIDE AS** by 21 points to 19. Judge was Mr P. Ginger (FBAS).

THE Committee of **SOUTH PARK AQUATIC (STUDY) SOCIETY** sadly record the passing of Mr R. Dudley, chairman and founder of the club. His presence and leadership will be sadly missed. Mr D. J. Pearson has been asked to act as 'caretaker' chairman until the AGM in January 1973. At the same meeting, the club regrettably accepted the resignation of Mr F. Glynn, the treasurer, who will shortly be moving away and Mr R. Trinn will act as 'caretaker' treasurer until the AGM.

LATEST news received from **BRADFORD & DAS** reports an interesting talk by Mr Horace Foden about the pitfalls experienced by aquarists, and a visit to the premises of a dealer in Wakefield, past president Mr Alec Firth, where members learnt all about the trials and tribulations involved in setting up a shop and were vastly entertained by the exhibition antics of a

To all cichlid fans—the new **BRITISH CICHLID ASSOCIATION** membership secretary is Mr Philip N. Berry of 131 Sherbrook Road, Daybrook, Notts. Please send i.c.s. with all enquiries.

Spanish hog fish, which cavorted around its tank looping the loop and generally delighting its audience.

DIRECTLY as a result of **LEAMINGTON & DAS's** very successful exhibition this year, the Society's membership has been rapidly increasing and to encourage further growth a prize is being awarded to the member who successfully introduces the most new members during the rest of the year. Mr & Mrs Beard won the pond competition held by the club and Mr Frank Stoodley was awarded first place in the Exhibition results.

A light-hearted quiz to test member's general knowledge of fish provided **COVENTRY POOL & AS** with a very pleasant meeting. The quiz was carefully prepared by members Mr Eric Wilkins and Mr Steve Woolridge, who put a lot of effort into preparing coloured sketches of numerous fish species, which, despite many jocular remarks (by those who were unable to recognise the fishes, needless to say) were both accurate and realistic.

MEMBERS OF **MERSEYSIDE AS** were very successful at the Grimwood AS first open show, being awarded eight firsts, five seconds and five thirds. The Society hope to continue their successes at this year's BAF.

MASTER K. Lamb of **YORK & DAS** is enjoying great success at table shows. He has won in the classes for junior egglayers, junior livebearers, and the best fish in show award.

Dates for Your Diary

10th November. **MIXENDEN TFS** Open Show, The Mixenden Community Centre, Clough Lane, Mixenden, Halifax. Details: Mr S. Leedham, 24 Clough Lane, Mixenden, Halifax, Yorks.

10th November. **G.S.G.B.** Quarterly Meeting, Coopers Hall, Hatfield Square, Holborn, London, W.C.1.

10th November. **HENDON & DAS ANNUAL CONGRESS**, Whitfield Secondary Modern School, Clarendon Road, Hendon, London, NW2, 8.30 p.m. Speaker: Mr Laif Christensen. Tickets 30p from Mr W. Atwood, 90 Cotswold Gardens, London, S.W. 3.

12th November. **MIDLAND AQUARISTS LEAGUE** Final Show, Friary Youth Centre, Nottingham. Open classes 10 a.m. admission, adult & 50p/child.

12th November. **HARTLEPOOL A.S.** Open Show, Longacre Hall, Barton Caves. Schedules: Mr J. D. Wilson, 42 Rydenham Road, Hartlepool, Co. Durham, TS25 4PZ.

12th November. **CRESWELL & DAS** First Open Show, Worktop Sports Centre, Valley Road, Worktop, Notts. Schedules: Mrs H. Hades, 13 Westminister Close, Worktop, Notts. Worktop G55.

12th November. **BRADFORD & DAS** Open Show, East Bowling Unity Club, Leicester Street, Wakefield Road, Bradford. Schedules: Mr E. J. Brown, 8 Garden Field, Wyles.

12th November. **FUR, FEATHER & AQUARIA SHOW**, King's Hall, Lower Clapton Road, London E3 (Basin, North & East London Aquarist Societies). Schedules: General Manager of Baths & Civic Recreation, London. Borough of Hackney, 39 Lower Clapton Road, London, E.3.

12th November. **AIRBOROUGH & DAS** Open Show, Yeoman, Town Hall (near the Leeds Bradford Airport, please ask for location). Schedules: The Secretary, 3 Grenada Avenue, Yeaman, nr Lath.

12th December. **HORSFORTH AS** Open Show, New Civic Hall, Bradford Road, Rumsington, Pudsey. Schedules: Miss J. Hale, 25 Wellingdon Road, New Wortley, Leeds 12; phone Leeds 21545.

1973

Note your special dates in the PFM Aquarist's Pocket Diary 1973, now available (40p post free from PFM, 894 Garrett Lane, London SW12 6NY).

14th January. **DERBY REGENT AQUARIST SEMINAR**, Playhouse Theatre, Derby. Speakers include Dr N. Carrington, Mr Graham Cox and Mr Ray Skippes. Tickets 10p/50p from Mr J. Bond, 8 Cumberholme Road, Duffield, Derby DE11 4HA; phone Derby 44235.

18th February. **ROTHERHAM & DAS** 4th Open Show, Brimsforth Manor School, Brimsforth Lane, Brimsforth. Details: Mrs J. Aston, 9 Best Lanes Avenue, Rotherham, Yorks S60 4BL.

12th April. **INDEPENDENT AS** Open Show, The Public Hall, Ilkington Town Hall, Upper Street, Ilkington, London, N1.

12th April. **COVENTRY POOL & AS** Open Show, Foleshill Community Centre, Foleshill Road (444), Coventry. Details: Mr S. Woodbridge, 21 Ridgeway Avenue, Strychale, Coventry or Mr D. J. Green, 22 Coely Road, Chylesmore, Coventry.

6th May. **OSRAM AS** Open Show, Osram Recreation Hall, Rofage Street, Shaw, Oldham, Lancs.

11th May. **GLOUCESTER AS** 2nd Open Show, Gloucester Education and Leisure Centre, Paternick Road, Gloucester. Schedules: Mr M. Brooks, 114 Millbourne Street, Gloucester from February on.

13th May. **CROYDON AS** Open Show.

17th May. **CORB & DAS** Open Show, Corby Civic Centre, FRSS rules. Details later.

17th May. **DERBY REGENT AS** Open Show, Sherwood Foresters Recreation Centre (Normanton Burycks), Osmaston Road (A5114) Derby. MAC signposted. Show secretary: Mr R. G. Harlow, 186 Mansfield Road, Derby; phone 44322.

20th May. **YEOVIL & DAS** Open Show, The School Hall, Church Street, Marnock, nr Yeovil. Details later.

26th June. **LLANTWIT MAJOR AS** Open Show, Show secretary: Mr J. Edwards, Flanfan MBE Park, Llanatthan, Cowbridge, Glam.

17th June. **SWELLINGTON AS** Open Show, John Smeaton School, off Barrick Road, Leeds 14. Show secretary: Mr R. Stanley, 46 Goodwood Avenue, Riggat, nr Leeds, Yorks.

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