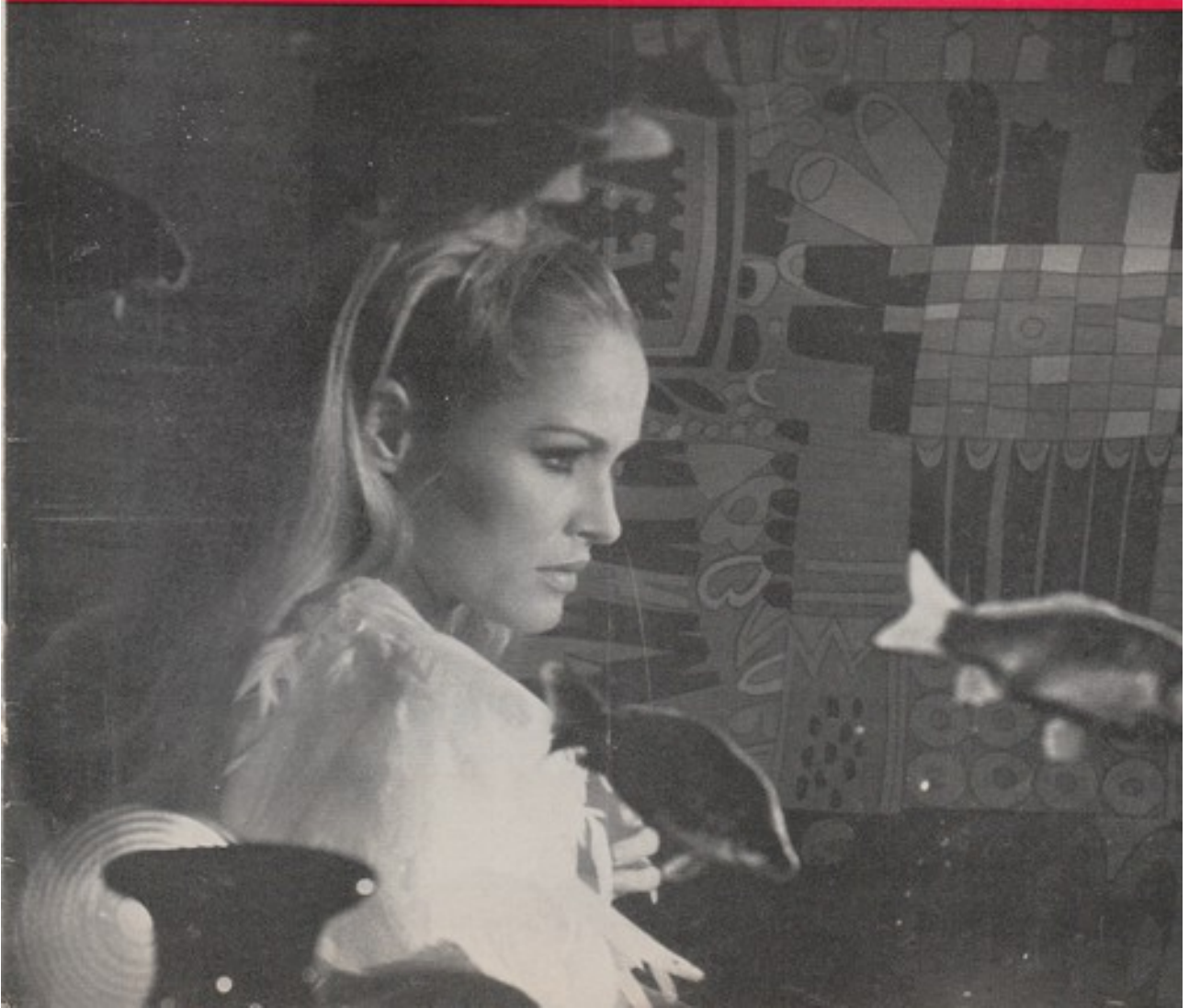


DECEMBER, 1966

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monthly





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Editor: Anthony Evans

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## Comments and Quotes

- Latest from the standards front
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### Standards and Judging

METHODS of judging fishes and standards for fishes have probably occupied more hours of aquarium society committees' time in the past 20 years than any other single topic. The creation of standards for each and every fish has long been screamed for by some and maintained by others to be a task not only of unmanageable magnitude but one that in the long run is just not worth the trouble. Now one official body, the Federation of Northern Aquarium Societies, has come down firmly in favour of standards for judging rather than standards for fishes.

In their printed BULLETIN no. 5, just issued, the F.N.A.S. Judges Committee presents full details of Standard Methods of Judging for the guidance of both F.N.A.S. judges and those who subject their fishes to the judges' scrutiny on the show bench. In his Editor's Note, Mr George W. Cooke emphasises that production of standards for fishes has not been the aim of his Committee, although approval is given by them to fish standards already worked out by specialist societies and by the Federation of British Aquatic Societies. Thus whenever fishes before the judge are ones for which no standards exist, and such fishes are, of course, the majority among tropicals seen today at shows, the Standard Method will be applied by the F.N.A.S. judge.

The F.N.A.S. Judges Committee record in the BULLETIN that they 'do not believe that a standard for fish is a practicable proposition—a standard has no flexibility'. They instance the difficulty of recording colour as part of a standard, this being incapable of being adequately described in print. Aquarists who are experienced can usually 'pick a winner' from a group of fish in which they have specialised, but the

Committee acknowledges that for the exhibitors to be satisfied about judges' decisions it is necessary to work to a points system, and it is this that forms the backbone of the Standard Method.

In this BULLETIN the approved pointings are given for furnished aquaria and plants as well as for fishes, with explanatory notes and additional information about these. For the tropical breeders class points for 'difficulty of breeding' are to be allotted according to the species, and four pages of the BULLETIN are devoted to a schedule of points (maximum 20) for a large number of individual tropical fishes. Plants are grouped in three exhibition groups, and in just over three pages these groups are listed for named aquarium plants.

All of this should make for more contented showing in the domain of the F.N.A.S. Will those elsewhere, saddled with the unenviable and thankless task of grinding out standards for species, reach out for the relief it offers or be spurred on in their dedicated endeavours?

### Aquarium Fish Boom

HONG KONG is earning more money from fish. With the spectacular rise in popularity of fish-keeping as a hobby in many parts of the world, its exports of aquarium fish reached a record £191,000 last year.

The Government's Hong Kong Trade Bulletin said that the United States was the leading buyer, with £62,500, followed by Japan with £38,125.

Some 1,200 acres of land in the New Territories are being used for the culture of fish in fresh and brackish water ponds.

An average pond of one acre yields about a ton of fish a year.—HULL DAILY MAIL.



# LETTERS

## Concerted Breeders' Action

THERE are, as most aquarists agree, certain species of fishes that, as yet, have not been bred in the aquarium except perhaps in the most meagre spawnings. I am referring to species such as the flying fox and the varieties of sharks.

Seemingly, ideal breeding conditions, diet, temperature etc. are not yet known and consistent results virtually impossible to achieve. Perhaps, in the cases of the two species already cited, not enough effort is being made.

Most of these fishes, imported into this country, are good community types and doubtless, as algae-eaters, they can be found in the community tanks of most aquarists. Chance breeding in these conditions is remote enough to be considered almost impossible. Success in breeding them could, I feel, result if a scientific study of these fishes were to be undertaken by a team of aquarists pooling their knowledge.

One way of doing this would be to form a correspondence club, under the aegis of PETFISH MONTHLY, open to any interested aquarist. The object would be to collect all data on given types of fishes from its members, to tabulate and file those data and proceed, methodically, to try to breed in a series of carefully controlled experiments. Each interested member would be given an allotted task and asked to keep careful notes at every stage of the experiment. By using this method, every facet of breeding could be carefully watched and controlled. It might even be possible, through foreign correspondence or through the offices of Commercial Attachés at Embassies, to glean some information from the very countries where these fish breed in their natural conditions—who knows? Ideally, a well-known aquarist or breeder should be in the club chair.

Newport, Isle of Wight

R. WALDER

*We hope that readers will always regard the columns of PETFISH MONTHLY as their correspondence club, and we are always glad to hear about breeding successes and new ideas.—EDITOR.*

## Fighter Specialists

I HAVE just received a letter from Detroit, U.S.A. from a group of aquarists who have formed a club comprising fighting fish breeders and hobbyists who specialise in *Betta splendens*, and if I may would like to pass on part of this letter in your Letters columns.

This society are very interested in corresponding with various organisations or aquarists who are interested in this particular species of tropical fish. They publish a two or three page news bulletin each month, which would gladly be sent free of charge to any aquarist who might be interested. This bulletin contains only information pertinent to the *Betta*, so if anyone is interested

contact: Mrs Barbara G. McKay, 22249 Samuel Taylor, Michigan 48180, U.S.A.

This is one of many letters I am receiving recently from abroad; this one has come about by participating in an exchange bulletin scheme. If any society is interested I can supply them with a list of overseas societies who, I know, would be only too pleased to exchange bulletins.

R. E. HAMPSON

Hon. secretary, Aireborough & D. A.S.

*Mr Hampson's address is: The Headlands, Scotland Lane, Horsforth, Nr. Leeds, Yorks.*

## Dealing with Snails

WITH reference to the query on how to deal with the snail problem (PETFISH MONTHLY, October), if all the plants are removed and a jam jar with the label still attached is floated in the aquarium it will be found that the snails are attracted to the label, usually during the night. The jar is removed before the aquarium is lighted, the snails are dislodged and the jar re-introduced.

I discovered this method quite by accident and have since used it very successfully.

Basingstoke, Hants.

G. WILLIAMS

## Shrimps without Shells

I WOULD like to pass on an idea that may be of assistance to aquarists keeping marine fish that require quantities of newly hatched brine shrimp.

A quantity of brine shrimp eggs are placed in a brown-coloured aspirin bottle and the bottle filled with water from the tank right to the top. Place one finger over the top and shake the bottle vigorously.

The bottle is now held on its side (still with a finger on the top to stop the water coming out!) for a few seconds to allow the brine-shrimp eggs to settle. Some of the eggs float but the majority will sink. If the bottle is now placed in the tank, keeping it the same way up, and settled in the gravel, when you remove your finger all the eggs will remain inside the bottle, and when the shrimp hatch they will be attracted into the tank as it will be lighter there. After two or three days the bottle can be removed by a similar procedure as all that will be left in the bottle will be egg shells.

Brine shrimps will hatch in coldwater marine tanks as well as tropical, though it may take slightly longer. The method could also be used in a small tank, other than a marine, for hatching brine shrimp without egg shells.

R. MARTIN

Member, Swindon & D. A.S., Marine Study A.S.

## Hobbyist and Trader Relations

THERE appears to be within our hobby at the moment a great deal of bad feeling amongst clubs and their members that they are getting a raw deal. Mainly from the larger retailers who used to entertain club visits. Numerous reports and letters have been

*Continued on page 273*

Prize  
Letter

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## Letters—continued from page 270

published in various magazines and newsletters this year alone complaining of this.

I have done a fair amount of research into this problem and found that there are several for and againsts on both sides. For the trade side, against such visits, I learned of two traders, who had had fishes stolen, in one case an arowana and the other a really large *Ancistrus anostomus*. Neither one a cheap loss. The former trader also lost a lot of large Amazon swords as well. A third, who has a beautifully laid out country house and grounds, had club parties picnicing on his lawns. This he didn't take exception to, but he did to the amount of litter that was often left behind. The last straw was when people started picking flowers and to get at the blooms they wanted broke down shrubbery etc. Several more complained that all too often clubs treated their visits like a trip to a zoo aquarium. Just looking and not buying at all. With staff problems and the wage scales that at present prevail, this makes such visits wholly uneconomic and time-wasting.

Now for the club and enthusiast side. Many are dismayed on visiting nationally and locally well-known hatcheries etc., at the shockingly poor selection usually available and indeed at the condition of some of the specimens offered for sale. A point I particularly take exception to is the filthy conditions that some of our pets are forced to endure. This in itself puts the majority of people off at once. Another great point I know amongst the keen show enthusiasts in the hobby is that they like to select their purchases. The time-honoured phrase, 'The customer is always right', is unfortunately sometimes disregarded. This last comment, I hasten to add, applies in the minority of cases.

However with reference to the last remark let me quote an example. In an effort to enable the majority of our own club to visit one of the largest retailers who consistently advertise their large variety etc., we ran a coach trip. This was on a Sunday, but arranged to conform with the advertised opening hours. The idea was that club members would go in in small parties of about six at a time and when they had done another party would circulate and so on, giving everyone a chance to see and buy whatever they fancied that perhaps is unavailable in our own area.

The proprietor happened to come out to the front and saw the coach pull up. He at once became very abusive before our intentions could be made known. After some quite unnecessary ugly words our members were permitted to start circulating through the display house in groups. They found the selection very poor, the finishing touch being that when some members saw species they wished to purchase and pointed them out to the staff they were told that they couldn't buy those particular fish but that similar ones would be brought out of the fish houses out the back. This, quite naturally, the majority did not agree to and the club left after an extremely disappointing and frustrating visit with hardly a purchase being made.

The coach party was about 45 strong plus one or two children. Allowing for this and a few wives there were about 40 people prepared to spend £1 upwards on fish. One or two considerably more, as they had been saving for the trip in great expectation. I should have thought

that £40 worth of business plus would be considered more than worthwhile in any retail trade of this nature.

In spite of all these arguments our hobby is steadily gaining popularity. Thus it seems that the time is ripe for serious reflection. Isn't it time we buried the hatchet all round and tried again? If retailers found any particular club behaved badly then bar that club from future visits. Not penalise clubs as a whole. The clubs up, down and across the country surely form the hard core of interest and ensure the popularity of the hobby. All the various clubs should also play their part in ensuring that these outings are not treated as a look-and-see only trip but plan to buy a few specimens per head with the proviso that the variety, quality and cleanliness is there.

Come on everyone—shake hands, swap ideas and let's all enjoy our hobby with no sharp practice or idle time-wasting gazing.

JOHN THORNE

Chairman, Hounslow & D. A.S.

## Distribute Your Good Guppies!

EACH month I receive letters from PETFISH MONTHLY readers, a large majority of them being enquiries for good guppy breeding stock. If the reader lives within easy distance of a Fancy Guppy Association section, I refer them to it, knowing they will get plenty of sound advice and, what is more important, sound stock. Unfortunately not all of them are so lucky; for instance, last month I received letters from Portsmouth and Newcastle, both at least a hundred miles from a F.G.A. section.

Now what advice can I offer to these would-be guppy breeders? I can't tell them there are hundreds of guppy breeders up and down the country with good guppies in their tanks that they could dispose of but just can't be bothered to do anything about. To these breeders I say—if you have any good stock for sale insert a small ad. in this magazine and give some novice a chance. Don't hog all the good guppies!

Liverpool 9

BILL ARMITAGE

## Breeder of Sharks

IN connection with the letter 'Have the Sharks breed in Aquaria?' (PETFISH MONTHLY, October), I have some young red-tailed sharks I spawned on 1st July. These would have been entered in the breeders' class at the F.N.A.S. show at Belle Vue but I had some bad luck. I took eight young fish but lost four on the way. Most of the information on sexing says that the male has white on the dorsal fin. Neither of my adult fish had any white on at all and yet all the young ones have. I believe that body shape is the best way to sex. The male appears to have a slightly hollow belly.

Workshop, Notts.

ALBERT M. DEAKIN

## Bark and Aquaria

YOUR magazine gives me really pleasant reading with such a variety of articles, news and information!

A few words to Mr Arpee (Personal Comment, PETFISH MONTHLY, October) about cork bark. This is widely used in Sweden as background material but we place it outside the tank. In order to get bark looking wet, it is varnished with a transparent varnish. To cover the



splices in the bark one can place dried reed over them. To get an even surface you cut a fibreboard the same size as that of the aquarium and provide this with a frame, the height of which is equal to the bark. Then you can soak the bark, hammer it flat and sew it to the fibreboard. This is of course done before you varnish it.

In this way you will not get any impurities in the aquarium water and you will gain 'depth'. If stones, plants etc. are placed inwards with the perspective in mind you might get, visually, one and a half times as deep an aquarium.

Goteborg V, Sweden

A. EKMAN

A course  
for the  
would-be  
breeder of  
tropicals

## Part 8

# Breeding the Fighting Fish



By D. B. McINERNY  
(McLynn's Aquarium)

Many aquarists who have not kept tropicals for very long would like to breed the beautiful Siamese fighting fish (*Betta splendens*). Provided that one has a good supply of minute live foods for the babies, and the female is given special protection, there is no reason why a successful spawning should not be achieved at the first attempt.

A 24 in. by 8 in. by 8 in. or larger tank is required, mainly because this will allow the fry to grow on to  $\frac{1}{2}$  inch size without the necessity of moving them to a larger tank. The tank will require sand, as it must be planted fairly thickly, at least at one end, the type of plant being immaterial so long as it affords the female plenty of refuge. The rainwater in the tank should be maintained at 80° to 82°F (26°-28°C).

When all is set up place into the tank one good male. Now select a bulging female. Make sure she is well rounded above and behind her ventral fins. Place her in a half-filled 2 lb. jam jar and float this jar in the breeding tank so that the cover glass nearly touches the rim of the jar and neither the male can jump in nor the female jump out. Seeing the female will excite the male. He will display around the jar, spreading his fins to splitting point and extending his gills like a ruff around his neck. The female may at first show some interest but, unless absolutely ready to spawn, will in a short time ignore him. He, once sufficiently aroused, will start to build a bubble nest at the surface of the water. In a day or two this should be  $1\frac{1}{2}$  in. in diameter, and nearly  $\frac{1}{2}$  in. high in the centre. He will keep building, and spasmodically return to the jar to try to coax the female to come to his nest. By now she may be sufficiently worked up to be making attempts to find her way out of the jar.

Now, with a very small net that will pass freely into

the jam jar, gently catch her and free her into the tank. Do not tip her out of the jar, as this movement may break up the male's nest. In a short while take another look. If the female is covering in a corner, or her fins are at all damaged, then, without damaging the nest, quietly catch her and replace her in the floating jar. Leave her there until the following morning, when she can be netted out again for a second attempt. If in a short while she is getting bullied again, replace her once more in her jar. This performance may have to be repeated four or five mornings running, till she is sufficiently excited and anxious to spawn. Perhaps on the fourth morning, when you return to see how things are getting on, you will see that she has gone straight to the male's nest, and without any scrapping the pair are locked in the nuptial embrace. When the female has expelled all her eggs, she will again seek cover amongst the plants. Once she shows no desire to follow the male back to his nest, remove her. Do not risk breaking the nest. If need be, leave the floating jar where it is. The female should be quite undamaged and ready to spawn again in a fortnight's time.

Meanwhile the male tends the nest, keeping it in repair until the eggs hatch. Any newly hatched fry dropping out of the nest will be taken in the male's mouth and blown back to safety in the nest. Do not mistake this action and think the male is eating his babies. It does occasionally occur, but nine times out of ten all is well. Once the fry are free-swimming remove the male, and feed the babies as described for spear-tailed paradise.

Do not forget to house the female in a jar in the breeding tank. Leaving her without this protection, when she is not worked up to spawning, will result, more often than not, in having her torn to shreds, if not killed.



## PETFISH MONTHLY visits

# Mr W. Richardson at Home



Mr W. Richardson

THESE days it seems to be unusual to meet an aquarist who is devoted to both the coldwater and the tropical sections of the hobby. I had been told that Mr W. Richardson was such an aquarist and therefore I was specially pleased when he agreed to show me round his ponds and fish house at his home in Birmingham. By the time I left I was in no doubt at all about his qualifications for the title of all-rounder!

Mr Richardson's garden is a very long one, and at the end distant from his house is the compact and tidy 'fish area' comprising a large rectangular pond and several smaller raised ponds and outdoor tanks grouped around his fish house. The latter has evolved and grown over a period of 18 years, from the original shed that received his first aquaria to the space-heated 16 ft. by 10 ft. building now crammed with tropical tanks of all sizes.

First to be noticed about Mr Richardson's tanks was their heavily planted state, and the very healthy appearance of his plants. At least twelve different types of plants were being grown in profusion, and the beautiful light green massed leaves of water wisteria in one tank was a particularly impressive sight. There was no need to enquire or to be told that Mr Richardson has the right touch with water plants as well as fish. He said that with tropical fish he tends to have a spell of concentration on one type, with a shift of interest and speciality from time to time. My visit was during a platy phase, and several varieties were in evidence at different stages of growth in the planted tanks. Breeding fishes is limited strictly according to the spare time he has available, and when his goldfish spawnings in summer months are keeping him busy the turnover of tropicals falls.

Natural light reaches the tanks in the fish house through the double-glazed roof. Mr Richardson showed me how he takes advantage of the film that collects on the inner glass from the fire in his Remesse internal combustion stove, situated in the house and kept burning throughout the year. During the summer he does not clean the roof glass and the light is thereby restricted to the minimum required. In the winter the glass is kept clean to get full advantage of the weaker intensity of light available.

A 'boon' was how Mr Richardson described a row of small concrete ponds raised about 6 in. above the floor beneath the tank staging in the fish house. These he finds most useful for growing on young fishes and he pointed out how the presence and employment of these tanks prevented the cluttering of this region of the floor with fish house bric à brac that otherwise seems always to accumulate. Because of the dense planting of most of



A corner of the fish house showing the variety of sizes of aquaria

his tanks, Mr Richardson does not use continuous aeration, but puts an air supply into any tank judged to be in need of it.

When he was recalling the various fishes he has bred, Mr Richardson remarked on how clearly he remembered his first breeding success—with the zebra cichlid (*Cichlasoma nigrofasciatum*), and how excited he was by this. He laughed as he confessed that he would now regard the conditions under which he bred them then as quite unfavourable ones. He said that to attempt something new was always a challenge for the keen aquarist and held this to be responsible for his enthusiasm for goldfish breeding, since here strain-building is a matter of great patience and careful observation and planning.

While I was admiring the depth of colour in his fancy goldfish in the five concrete tanks, each holding about 250 gallons, outside the fish house, Mr Richardson remarked on the way in which the colour could change, apparently as a consequence of transfer to new water, when goldfish are put on the show bench. Outside rearing seems to help colour development considerably. These rearing and growing-on tanks are used in the summer months only; they, too, are kept densely planted, and the water in them was crystal-clear.

I was shown the 'worm pit' that provides much of the live food used almost exclusively by Mr Richardson for his coldwater stock; this he made many years ago and the constant addition to it of his lawn-mowings has



Outdoor tanks and small raised ponds outside the door to the fish house

built up a rich earthworm culture. Maggots are also used for feeding, and some Bemax.

In the large (24 ft. by 8 ft.) pond the big fish shoaled at the surface at the sight of their owner standing on the grassy bank of the pondside. This pond has the bottom so arranged that a channel with varying depths of water is given, suitable for water lily and other plant growth and with a 4 ft. section used as a refuge by the fish in winter.

I asked Mr Richardson if there had been any particular event associated with his fish-keeping career that had specially pleased him. Without any hesitation he told me that the life-membership awarded to him by the Midland Aquarium and Pool Society was the recognition of which he was most proud. The award, of course, speaks for all the enthusiastic support that Mr Richardson has given to the Society, but I was sure from what he told me that he is deeply grateful for the interest that Society life has added to his personal fish-keeping through the years.

Anthony Evans



Mr Richardson's large pond is seen beyond these two rearing ponds in the foreground

## What's New?

### Freeze-dried Fish Foods

AS one of PFM's contributors wrote in last month's issue, setting out to stock the aquarium larder involves much more these days than merely asking for 'a fish food'. One new development in the food line, the introduction of freeze-dried live foods, is expanding. As well as the freeze-dried *Tubifex* described in

'New Equipment' in PFM for October another preparation of the freeze-dried worms called *Tubi-Cubes*, in 5 gram (approx. one-sixth of an ounce) packs selling at 4s, has appeared on the scene and is in the shops now.

The brine shrimp is the latest live food to be frozen alive and then freeze-dried for the aquarium fish

Continued on page 286



## Formation of an Aquarium Society: 3

## Keeping Up the Interest

AFTER the initial stages of founding the society and the compilation of the rule book and constitution, thought will have to be given early on to the production of an agenda or programme for your forthcoming meetings. The requirements and views of the members about the subject matter for lectures, talks and about shows (either with fish belonging to members of the society or an inter-club gathering with another society or societies) must be considered.

The first task would be to contact persons competent to give lectures and talks on aspects of the aquatic hobby; here is where a little outlay initially will benefit the society. One of the many services to affiliated societies offered by the Federation of British Aquatic Societies is the provision of lists of competent judges and lecturers recommended by that authority—some of whom do, in fact, lecture on club formation and organisation. Application for affiliation to the F.B.A.S. should be made to the secretary, Mr K. J. A. Pye, 35 Steeles Road, Hampstead, London, N.W.3. If your society is in the north of England or Scotland, you may decide to affiliate to one of the other existing Federations as well. Addresses of these secretaries are: Federation of Northern Aquarium Societies, Mr A. E. Falkus, 87 High Street, Thornhill Edge, Dewsbury, Yorks.; Federation of Scottish Aquarist Societies, Mr R. M. Cooper, 76 Campsie Crescent, Kirkcaldy, Scotland. Other advantages to be gained from joining federations, besides the availability of judges and lecturers, are many and varied according to whichever organisations are approached; these might include the donation of prizes for shows, the issuing of standards and guides for fishes and the general help and advice of experts.

Next on the list is the showing of fishes. The classes into which the fishes will be divided for judging would at first be at the discretion of



'Our speaker tonight is an expert on cave fish'

either the show secretary or the committee, according to the number of entries obtained, but after this early period a series of show classes can be used. These again may vary from time to time and area to area.

By G. H. JENNINGS  
(Hampstead Aquarist Society)

but a rough guide to such a series of classes is given.

(1) Livebearer classes: guppies; mollies; platys; swordtails, and any other variety livebearer tropical fish.

(2) Egg-layer classes (here there is an even greater diversity, in the tropical egg-laying species): any variety barbs; a.v. characins, angels; any other variety cichlids (except angels); fighters; a.o.v. labyrinths (except fighters); danios, rasboras and White Cloud mountain minnows; *Corydoras* catfish; a.o.v. catfish.

(3) Coldwater classes: native cold-

water fishes; a.v. singletail goldfish; a.v. twintail goldfish.

(4) A.o.v. tropical fish classes.

(5) Breeder's classes: two to three breeder's classes are usually included, such as breeder's livebearers; breeder's egg-layers; breeder's coldwater.

Fishes are most often shown in standard 4 in. by 4 in. 'show' jars, which are usually obtainable through your local aquarists' suppliers.

Prize cards and various items of show stationery will be required for use at any show and these can either be obtained from Hife Exhibitions (Show Stationery Department), Dorset House, Stamford Street, London, S.W.1, or if you are able to make contact with a local printer he may be able to quote for these items. (Here is where the appointment of an influential president may be of some use.)

The show secretary, if appointed in the first instance, may be able to relieve some of the secretary's work



at this stage by contacting other societies or individuals on behalf of the society, with regard to show matters such as fixing dates and classes and judges for the various shows. Suggested contacts are:

(1) The Federation of British Aquatic Societies and any other Federation not previously contacted, if there is another one operative in your area.

(2) Any other local aquatic society or area group of such societies. Names and addresses of these societies and their secretaries can normally be found in the local press, public libraries, or obtained from PETFISH MONTHLY. (Don't forget to enclose stamped addressed envelopes with any enquiry.)

It goes without saying that the success of a club depends on the numbers drawn to its meetings, and it is therefore essential that these should be as varied as possible so that all the initial enthusiasm does not turn into boredom. As well as official aquatic lecturers, are there

other experts in your area who could be prevailed upon to lecture occasionally?; biology teachers from local schools, lecturers in zoology from nearby universities or technical colleges, workers in appropriate government research stations. Don't forget to give some thought to procedure for dealing with guest speakers. Arrange for your lecturer to be met at the station if he travels by rail. Don't make him endure a long session of club business before his talk commences. Make sure your meeting or show ends in good time if he has to catch a late train or otherwise has a long journey home.

More experienced club members should be encouraged to give talks and demonstrations on tank glazing, setting up tanks, arrangement of plants and tank fittings. Also enthusiastic photographers may have slides and cine films to make up a programme. Reading the club news in PETFISH MONTHLY should give further ideas from the activities enjoyed

by other clubs. Raffles of aquatic equipment, plants and fish are popular, as are the occasional quiz and brains' trust.

If refreshments can be made available at club meetings, their sales bolster club funds and they help to make the meeting a pleasant social occasion. Many societies enliven the winter months with socials with other clubs and their own annual dinner and dance. In the summer outside activities can provide a widening of interests—visits to zoos and large aquatic establishments, visits to open shows, expeditions to study life in ponds and streams, daphnia-hunting expeditions, trips to the coast to study the rock pools.

Plan all activities as far in advance as possible and make the dates and engagements known to all members as soon as they are fixed. In this way good attendances and continued interest in meetings will be maintained and your founded society should go from strength to strength.

## How to Build a Strain of Guppies



F.N.A.S. Assembly speaker discusses the methods of specialist guppy breeders

IT should be possible for an aquarist to produce male guppies of a given selected variety within about a year if the correct pairing is used at the onset, Dr C. N. D. Cole told his audience at the Assembly of the Federation of Northern Aquarium Societies held during the British Aquarists Festival last month. 'If you cannot do this', he said, 'then your fish-keeping is at fault, not genetics'.

How to select the right female to pair with the desired male was a topic about which Dr Cole gave a good many practical pointers from his 20 years' experience of guppy breeding. He emphasised that the tail of the grown female gives the best guidance for predicting the

type of male she will be most likely to produce. Thus females nearest to the original wild guppy with round tails showing no colour give the best chance of developing sword-tailed males, given a suitable male partner. Conversely, narrow-tailed strains of males will appear from wide-tailed females having blue or blue-white flashes in the tail. Veiltails of the older type came from females showing brown-black mottled tails, but the modern veiltail strains are thrown from females with the 'superba' type tail. This has the upper seven rays longer than the other rays, and black, brown or dark red are common colours in the tails of females of this strain.

In the flagtail strains the females

have shorter and wider flagtails with edges that are straight in comparison with the more rounded outlines of tails of females of the other strains. Browns and yellows predominate as tail colours in these females. With the delta strain it is exceptional to find the delta feature produced unfailingly by one particular kind of female, although one with a long rather ugly tail, elongated at the top and having a notch towards the base, and nearly always greyish is most commonly seen.

Dr Cole said that although guppies with black or half-black caudal peduncles are spectacular fish they

*Continued opposite*



Photo:

V. CAPALDI

## Guppy Breeding

(continued)

are slow growers and many abnormalities appear in their young, the females in particular developing tumours. He advised the guppy breeder to avoid 'flock breeding', for although 'line breeding' does not eliminate faults, with its use the percentage of such faults appearing does not increase. Use of chemicals in the aquarium water was another procedure condemned by Dr Cole.

In summary, the procedure involved in developing a strain having some desired feature is to take a female who has been found to produce one or more males showing the feature, and to keep her on her own until brood production stops. When she is 'empty', the special male she produced is mated to her, so that in the subsequent progeny more males of the same kind should appear.

In giving thanks to Dr Cole, Dr J. F. Wilkinson, F.N.A.S. president, remarked on the importance of awareness by aquarists that development of black pigmentation in fishes is often associated with tumour formation, and heartily concurred with Dr Cole that 'doctoring' of aquaria was something to be avoided.

### For the Community Aquarium

# Cardinal Tetras

A VIVID iridescent blue-green band traverses the body from the root of the tail to the tip of the nose, passing over the eye. Almost the whole of the rest of the body below the green swathe is coloured a brilliant cardinal-red that spreads on to the throat and almost covers the belly, the remaining portion of which is silver. Above the green band the back is a reddish brown. Although these sentences give a factual description of the cardinal tetra's colour it really is no wonder that most descriptions of this fish contain phrases such as 'jewel-like'. It is a most beautiful addition to any community tank. One cardinal alone is a feast of colour, but it is a fish that likes to shoal and four to six kept together achieve a brilliant effect. They are not cheap fish to buy and usually cost about twice the price of a neon, a fish they superficially resemble, but there really is no risk of confusing the two; cardinals are much more richly coloured, the green stripe covers the eye and the red coloration does not stop, as with the neon, halfway across the lower body.

Cardinals (*Cheirodon axelrodi*) come from the forest pools of the upper Rio Negro in Brazil and soft and slightly acid water brings out their most intense colouring, but in spite of their exquisite appearance they are not delicate fish and will live for several years in most well-kept community tanks. A dark background, not too brilliant lighting and a well-planted tank provides them with the right conditions for their well-being.

There are several varieties of cardinals, varying in size from about 1½ in. to the 'king' cardinals at 4 in., but those most frequently obtainable do not usually reach more than about 2 in. when mature. The adult fish are not nervous and live contentedly with good-sized companions; most newly bought ones, however, are quite small and if they are introduced into a community tank containing much larger species they will merely provide a somewhat expensive meal for their fellows. They are not difficult to grow along, however, as they take small foods of all varieties—dried foods, daphnia and chopped white worms amongst them. They do not enjoy a very high temperature and are most comfortable at a water temperature of 72°-75°F (21°-24°C).

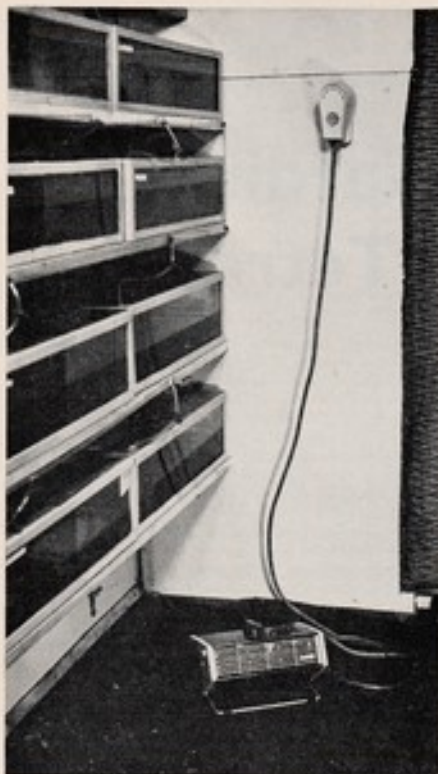
At the size at which most of these fish are bought, it is almost impossible to tell the males from the females, but with growth the swelling females are clearly distinguishable from the slimmer, and possibly more intensely coloured, male. Breeding the cardinal is not easy, but details of a successful spawning have been presented by Mr J. Lee in the August issue of PETFISH MONTHLY.



# Low Cost Fish House Heating

By P. R. STOKES

(Chairman, British Killifish Association)



Photographs by  
T. & K. PAYNE



ONE of the biggest problems of this hobby today for aquarists with large collections of fishes is the increased cost of electricity. Even the hobbyist with perhaps four or five tanks in a living room has found the running costs of another tank an expensive item. The man with some tanks in the greenhouse-type of fish house may begin to wonder whether his breeding over the past year has been worthwhile when he looks at his electricity bills.

I suggest that it is time for a new approach, for a new plan, because a fish house, however small, can be made to pay for itself even when run by electricity. I am not trying to tell you the type of fish to breed, the type that can be turned out in quantity or the type the dealer is going to give you the top price for. This is left to your better judgement. What I do want to open your eyes to is a fish house, a large fish house in fact, that can hold upwards of 120 tanks with a running cost of less than 8s a week. I know this sounds impossible, when one considers that the cost of heating one aquarium in the house is anything from 2s to 1s 9d a week.

The fish house I am describing is 12 ft. by 8 ft.—just a ready-made wooden shed, lined of course, but we will come to this later. The heating is done by fan heating. 'Oh! Yes', you may say, 'I have heard of space heating; this is too warm to stand for any length of time and is expensive'. You would be wrong in both statements; in the first place the air temperature will never be

(Top) Fan heater and lead to thermostat in the fish house. The tanks shown are 24 in. by 8 in. by 6 in.

(Left) From right to left are shown: shed wooden wall polystyrene sheet, Slagbestos layer and insulation board



above 78°F (26°C) to have the tanks running at 75°F (24°C). The use of a circulating fan, in the apex of the shed, will stop any build-up of hot air at the highest point in the fish house (we all know hot air will rise), making the whole air temperature the same at the roof as the floor.

The base of the fish house can be of concrete, slabs or any form of hard material. The shed itself can be placed on a course of bricks, with a damp course if you like, and this will give you an added row of breeding tanks, believe it or not! You will have noticed there has been no mention of roof lights, or daylight coming into this type of fish house; this is just not needed. In fact this has been your expensive item in the past.

### Insulation against Heat Loss

Insulation for the house is not too expensive. At the most the whole cost will be £30 for insulation and £11 odd for the heating. Too expensive? Think again! What would the cost be for heaters and thermostats for 120 tanks? At 10s per tank this would run far more than the total given here.

After erection of the shed the first thought must be for the supports to hold your breeding tanks. I find that 12 in. by 8 in. by 8 in. are ideal spawning aquaria, for most types of fishes, larger barbs included. One side alone of the shed can hold 55 breeding aquaria of this size. The main supports are at 16 in. centres, so in most types of ready-made sheds these will have to be added; they need only be 2 in. by 2 in. timber, these to be well secured to the sides.

Two layers of insulating material are fitted between each of the 2 in. by 2 in. supports. For the first layer, placed against the boarding of the shed, expanded polystyrene is used. Over this, further insulation is provided by Slagbestos, secured by drawing pins or laths, which is a cheap form of flexible insulator at 7s 9d a roll. For a shed of the size given 12 rolls will be needed, including material for the floor area as well. The inner roof surface is insulated with the same materials in the same way.

For the inner walls and roof the final covering used is the insulating material known in the trade as insulation board; this is a little expensive (22s 6d for a sheet 8 ft. by 4 ft.) but it works wonders as insulation and also gives a finished surface. It need not be nailed into place until the electric wiring has been completed. Galvanised nails are then used to fix it to the main supports. Remember to mark the positions of these supports for your guidance when screwing the brackets, that are to hold the aquaria, to them through the board, otherwise after searching with screws etc. your insulation will finish looking more like pegboard!

For the floor the top covering suggested is chipboard, but you can, of course, use floor boarding or any other firm covering.

### Staging and Heating

With tanks up to 10 in. deep, brackets can be used to hold the aquaria, 2½ in. screws being used to fix them to the main supports. For larger tanks a stronger form of staging will be required. If the 12 in. by 8 in. by 8 in. tanks suggested are used a space of only 2 inches is all that is necessary above each tank row, since these



Small lightweight aquaria can be staged close together on metal brackets screwed to supports attached to fish house wall

small aquaria can be handled easily even when containing water. Then five rows can be fitted along one side of the shed. Larger tanks, such as 24 in. by 8 in. by 6 in., ideal for growing on fry, can be housed on the opposite wall of the building.

This type of set-up was designed for killifish breeders and many similar arrangements are used by members of the British Killifish Association, for whom it has proved to be ideal.

Why do I suggest small aquaria? In general, most types of fishes spawn in shallow water, so why have breeding tanks deeper than 8 in.? Fry feed in shallow water, and many will die if put into 12 in. or more depth of water too soon. Then, of course, the space saving with shallow tanks is most important, and as the running costs for heating etc. the fish house are the same for a small number of tanks as for 1000 tanks the more tanks that are used the greater the benefit given by the economical 8s a week (coldest months of the year—in this country eight out of the twelve!) heating cost.

### Fan Heating

Several types of fan heaters are on the market. A good one is the Phillips, 1½ kilowatt and 2 kilowatt, and heating from this can be controlled by a Plug-Stat, a thermostat that is plugged into a 13 amp socket. The

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## Low Cost Fish House Heating

Continued from page 281

heater will throw the heat along the floor for a distance of well over 12 feet.

Apart from the wiring for this, a supply of electricity for the air pumps, circulating fan and lighting will be required. Two strip lights (80 watt), one of which can be left on all day for the benefit of the fish, are suggested. Other lights above any tanks used for show can be included, for the growth of plants, but who wants to grow plants in breeding aquaria?

The main advantages found with the fish house lay-out described here have been (1) comfortable and spacious working conditions, (2) absence of untidy electrical wiring, (3) absence of condensation (source of so much trouble in the past when glass roof-lights were used), (4) no rusting of tanks, (5) additional tanks can be added when space permits, without extra cost for heating or wiring, (6) power cuts cannot cause serious harm (with the insulation suggested the heater can be left off for well over 12 hours with very little drop in temperature).

With a new approach to our fish-keeping, let us compete with overseas breeders and get some first-class fishes into our dealers' tanks, at no extra cost to the aquarist just starting in the hobby.

# A Decorative Marine Aquarium



Details of the first prize winner in the marine section at the B.A.F.

A GREAT number of visitors to the B.A.F. in October admired the decorative tropical marine aquarium entered by Marine Study Aquatic Society member Mr J. Eden, who was awarded the F.N.A.S. Challenge Trophy for the best marine furnished aquarium. The exterior of this 45 gallons nylon-coated tank, formed by a casing of Formica leaving only the front glass panel unobscured, would make it most acceptable in any living room, and Mr Eden had moved the entire set-up from his home to show it at the Festival. He has maintained it at home for about a year.

Hidden by the exterior covering are the filters (two Eheim no. 386), ozoniser and air pump, and in the top cover are two fluorescent tubes, one Gro-Lux and one Natural (40 watts). This lighting is normally used for 6 hours daily, and the tank receives no direct daylight.

The sea water used was originally prepared from Tropic-Marin salt mixture and has been in use for 12 months, with distilled water additions to maintain the density at 1.027. Reaction of the water is kept constant at pH 8.3, and the distilled water is always adjusted to the pH and to the correct temperature before addition. Ozone from a Sander ozoniser is fed directly into the

water via the air stream entering through a coarse air stone. When it was first used 5 milligrams per hour was the rate of ozonisation but this was gradually increased until the present amount (20 milligrams per hour) was reached. Both the filtration and the ozonisation are used all day and every day. Algal growth is practically non-existent under these conditions, Mr Eden reports.

Decoration of the aquarium is provided by various corals, sea ferns and pieces of calcareous tufa stone, with calcined sand on the base. The tank community comprises *Balintapus aculeatus*, *Amphiprion ephippium*, *A. percula*, *A. sebae* (two), *Dascyllus aruanus* (two), *D. reticulatus*, *Bodianus pulchellus*, *Apogon nemosoteus*, *Pomacentrus leucostictus* (two), *Chaetodon asrigo* (5 in.) and a dahlia anemone (about 5 in. across).

Feeding is mainly with white worms, fresh prawn and chopped earthworms, four feeds being given daily and one of these including a dried food (Tetra-Marin). The larger fishes are given young guppies from time to time. Disease has not been a problem, Mr Eden says, although occasional fighting results in torn fins and bites but no permanent damage.





by ARPEE

**A**RATHER unpleasant habit of certain writers in certain magazines at this time of the year is to suggest a Christmas Day treat for the pet dog, cat, budgie, or even the car, and a 'suitable' dinner menu is described in lurid detail. I will make no attempt, therefore, to suggest how you should boost your fishes' diet, as *PETFISH MONTHLY* has been telling you for months how to feed your charges, and I can hardly improve on that. Rather, I will suggest that on 24th and 25th December, and on New Year's Day, too, you should take the opportunity of caaking in on the good health of your fish; just give them their normal ration of dried food and give yourself all the more time to enjoy yourself. For those with families it will be a rare treat for the children to have Father all to themselves for a day or so, and many an aquatic widow will view 1967 more favourably if the washing up is done for her on two consecutive days.

I always regard the Christmas holiday, festivities apart, as an opportunity for looking at the hobby in retrospect, and for having pipe dreams for the year to come. It is good, for once, to be able to make some impossible plans in the general well-being of the occasion, and to not regret too much their abandonment in the cold light of the New Year. However, one meets lots of one's friends at this time of the year, and even if the fish take second place in conversation, which is highly unlikely, the company is good, and there is less water about than usual. Let's take ourselves a little less seriously, then, for a day or so, and enjoy the change while it lasts.



Just as I will decline the opportunity of suggesting a Christmas aquatic menu, so will I also decline the other obvious pitfall at this time of the year, namely, that of suggesting how you should spend your money on Christmas presents. There are scores of gadgets and many, many books for the aquarist, and you will find your dealer a far better judge than I of what young So-and-So really needs, now that he has bought his first tank and plants. I will make one exception, and that is that the *PetFish Diary*, if you haven't already got your copy, is an extremely useful purchase for 6s 6d. There are no pictures of angel fish in it, nor of neons, but it contains all that information you want urgently when white spot breaks out—how many gallons your tank holds, and what concentrations of medications may be applied to that quantity of water, etc. The Editor seems to have carefully selected all those useful formulae, scattered throughout the many books on the hobby, which defy discovery when the need is

most pressing. I should have liked to recommend to you one further buy, but it doesn't yet exist! I refer, of course, to a binder for *PETFISH MONTHLY*, which would have been welcome with many of our readers. I look forward to its introduction before very long, as, with the magazine now well on its feet, it should now be being prepared to take its place on our bookshelves. (Action is being taken on this! Announcement of the availability of the binders will be made as soon as possible.—EDITOR.)



In the November issue 'Dealer' drew a truly terrible picture of what he might suffer if customers were allowed to net their own purchases from his tanks. He implied that I had suggested, in the October issue, that all customers should be allowed to catch their own fish. If he will re-read the article in question, he will see that my claim was that customers should be allowed to choose their own fish. I certainly added that my own dealer lets me net my own. I should, perhaps, have made this comment with some humility, because I am well aware that it is not his general habit, and the first time it happened I felt as though I had received the accolade! No, I quite agree with 'Dealer', that the general adoption of such a practice is unthinkable, but provided that dealer and regular customers come to some understanding about this sort of thing—there is a protocol about it, as well as acceptance of responsibility on both sides—there is often a mutual advantage. Certainly, I would never think of netting any fish from his tanks unless I had first 'caught his eye', and I would not expect to get any privileged treatment in a shopful of customers; but there is the time, when you jolly well know that he is giving some newcomer a bit of advice—and this is never stunted—at which he will positively welcome my helping myself, right down to the point of paying up.

I am glad that 'Dealer' otherwise agrees with my feelings over getting the fish you want. Paying a higher price for the bigger fish is a fair way to aid discrimination, but I could not go along with any practice in which quality is the subject of a price differential. I am sure that 'Dealer' would be against this, too, but I should be interested to hear his views over the matter of maintaining quality standards in display tanks. The amateur breeder is always being told to cull, cull, cull, until it hurts, and if he gets to the point of selling his surplus to dealers, it is usually of uniformly good quality. Whence, then, come all those runts and hollow-bellied little fish we see too often displayed before us? I can't believe that these come from the local amateur, whose standards are easily regulated by dealers' refusals to take rubbish: who, then, imports those undersized little fish with little real hope of survival?

Isn't it time that some form of regulation were made to ensure that the majority of imports stood a rather better chance than many of them now do? Recent instances of overcrowding imported foreign birds have been headlined in the press, and the conditions of importing tortoises frequently leave much to be desired.

Continued on page 285



# Life Cycles of Fish Parasites

By Dr JAMES C. CHUBB  
The University of Liverpool

**E**ACH species of parasite has three major phases in its life-cycle: growth, reproduction and transmission. These phases may involve one or more hosts, means of reproduction and periods of transmission.

A simple life-cycle may be illustrated by considering the monogenetic trematodes, of which several species of *Gyrodactylus* and *Dactylogyrus* are found in British freshwaters. *Dactylogyrus* species occur on the gills of the fish. The worms deposit eggs during much of the year, although the life of each worm may be short. The eggs sink to the bottom, and after a time hatch to give a free-swimming larva which is capable of infecting the host. This is an example of a direct life-cycle, in which only one species of host is involved.

*Gyrodactylus* species, which occur on the body surfaces, fins and gills, also have a direct life-cycle, but the young are born alive. The daughter worms at birth are fully formed and do not differ from the adult in either size or structure. It is not known how the transfer of the *Gyrodactylus* from fish to fish takes place, as in normal circumstances direct contact between fish is not seen.

A rather more complicated direct life-cycle is found in the white spot protozoan *Ichthyophthirius multifiliis*. Mature individuals occur under the skin of the fish, and

may be as large as 1 millimetre in diameter. These are the so-called white spots. They break through the skin of the fish and escape into the water, swimming for a time before settling on an aquatic plant or a pebble. A cyst is then formed which fixes the parasite to the substrate. Within the cyst repeated division occurs, to give 2,000 or more small rounded ciliospores. The ciliospores bore out of the cyst, and swim about in the water, and must infect a fish within a few hours, or else they die. If the ciliospores do make contact with a fish, they penetrate the skin and burrow some way into the tissues. Here the growth phase occurs, to give the white spots visible through the skin of the fish.

Many fish parasites have a more complex life-cycle, in which one or more intermediate hosts are necessary in addition to the definitive host, which harbours the adult worms.

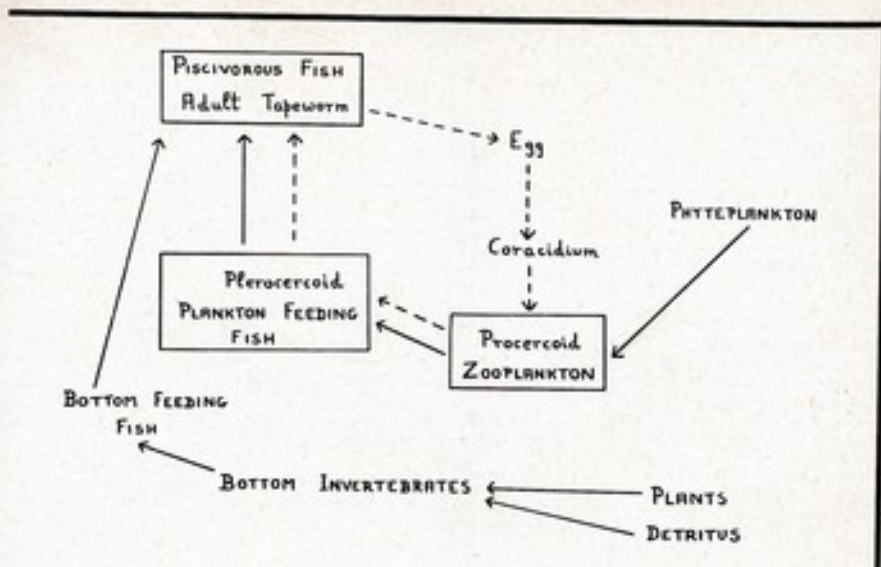
The spiny-headed worms (Acanthocephala) have one intermediate host. The adult worms are found attached to the wall of the intestines of the fish. The female worms release shelled larvae into the lumen of the intestine, and these pass out into the water and sink to the bottom. Here they may be eaten by bottom-feeding invertebrates. If the correct animal eats a shelled larva, it emerges from the shell, bores through the gut wall, and comes to lie in the body cavity of the host where further development occurs. The freshwater shrimps, *Gammarus* species, and the water louse, *Asellus* species, are normal intermediate hosts in British freshwaters. Once the larva attains maximum development in the intermediate host, it remains there until it is eaten by a fish. The larva, on the digestion of the intermediate host, attaches itself to the wall of the intestine of the fish by the spiny proboscis, and after a period of growth becomes sexually mature, thus completing the life-cycle.

The life-cycles of many tapeworms of freshwater fishes require two intermediate hosts for their completion (see diagram).

In the digenetic trematodes there may be one, two or even more hosts in the life-cycle. The larval stages normally reproduce themselves many times by means of propagatory cells termed germ balls. Thus one egg will have the potential for the production of many larvae, and thereafter many adult worms. Fortunately, there is a tremendous mortality to keep the numbers of these worms under control.

When considering the means of control of any parasite, it is ideal if we know the life-cycle, because the control measures can then be directed at the most vulnerable part of the cycle. But because the life-cycles of parasites utilise normal food chains in the environment, there is always a danger of damaging the food animals required by the fish. In an aquarium or a small pond, it is usually possible to break a life-cycle by removing the appropriate intermediate hosts, but this is not normally feasible in larger ponds or natural environments.

At the present time we have relatively little information on the biology of many of the species of parasites found in the British Isles. More research is required, and is being undertaken, but it takes a long time to obtain results.



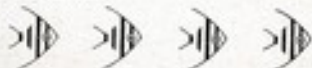
The diagram gives a greatly simplified picture of the life-cycle of a fish tapeworm, shown related to the hosts and to the food chains in the habitat. The planktonic food chain, shown by solid arrows, starts with the phytoplankton, microscopic plants floating near the surface of the water and obtaining their life needs from sunlight and salts dissolved in the water. The phytoplankton is eaten by zooplankton, minute animals, and in turn these form the food for plankton-eating fish. The plankton-eating fish are eaten by piscivorous, fish-eating, fish such as the pike. A similar food chain is found for the bottom-dwelling forms of life, and is shown at the bottom of the diagram.

The tapeworm life-cycle, shown by the dotted arrows with the hosts in rectangular boxes, is superimposed on the planktonic food chain. The adult tapeworms are in the intestines of piscivorous fish. Eggs are produced which pass into the water and hatch, giving a free-swimming larva called a coracidium. Zooplanktonic animals eat these and the first parasitic tapeworm larva, the proceroid, develops in the body cavities of certain species. Infected zooplankton eaten by the plankton-feeding fish transmits the infection to the fish, where the second parasitic larva, the plerocercoid, develops. When the plankton-eating fish is eaten by the piscivorous fish the cycle is completed, and a new generation of adult tapeworms develops.

## Personal Comment

*Continued from page 283*

It seems to be an increasing habit to sell (not at reduced prices!) fry, rather than fish. There are, of course, a number of importers who grow on small fish before offering them to the public, and this practice is highly commendable, as well as being, in the long run, the only sure way to remain in the business. All the same, too many tiddlers seem to me to get through somehow. Open for comment!



The August issue of PETFISH MONTHLY touched upon the possibility of the formation of the Union of Daff-

Catchers and Tubi-Collectors. It appears that this may become a matter of considerable urgency for those so engaged if a device called the Insect-O-Cutor comes to be modified for underwater use. It apparently consists of a "black box" which emits short-wave light rays. These are claimed to lure insects to their death against a heated plate, from which their lifeless bodies drop into a tray below. It at present constitutes a hygienic device for use in canteens, restaurants and so on, but one conjures up idyllic scenes of the aquarist seated by the pond, directing his Daff-O-Cutor at the depths, and scooping out by the pound the most delectable of all fish foods, and literally staggering home beneath the unaccustomed load.

Best wishes for Christmas to all in the hobby, and for 1967, much spawn and little spot.



## Transatlantic TOPICS

THOSE followers of Guppy History will now confirm that the wheel has made a full turn! From 1859, when Wilhelm Peters found this fish in a collection in Germany, and called it *Poecilia reticulata*, to modern times, the guppy has had many names: *Lebistes poecilia*, *Girardinus guppyi*. As the clock ticking away marked the passage of time, so too did the thinking of those learned men responsible for allocating the position of our pets in the scheme of things.

Aquarists being human don't take too kindly to scientific names and much prefer the 'common' tags allocated to our fishes, but these scientific names are necessary and though it may very well be true that there are no hard and fast rules for naming genera, we must listen to the experts and their considerations.

Two such are Dr Donn E. Rosen and Dr Reeve M. Bailey, who after much study gave their findings on the poeciliids (livebearers) in the BULLETIN of the American Museum of Natural History.

By JIM KELLY

Thus the guppy loses its familiar title of *Lebistes reticulatus* in favour of *Poecilia reticulata*, the trivial portion of the name ending 'us' changing to 'a' so that it agrees with the feminine gender.

Book publishers find that corrections to their product are expensive so don't expect to see the name changed for quite some time, but meanwhile those of us who are as with it as Quant fashions will use the new name—er is it the old?

The disease *Salmoneilla* has been making the headlines in papers Stateside recently, and has even resulted in a drop in the sale of pet 'turtles' (terrapins), the latter being wrongly blamed for the spread of the infection. If any readers do keep these interesting pets here is a method to sterilise their tanks: wash the tank out well with soap

and water then refill with clean tap water to which two cupfuls of Chlorox have been added per gallon, allow to stand for at least half a day and then swirl out. Guaranteed lights out for any *Salmoneilla* bacteria.

A mysterious disease is killing female guppies in their thousands, report many of the guppy breeders in America. It starts as a white spot in the dorsal area then spreads as a white band of infection encircling the body. Nobody has come up with a cure but one D.V.M. put forward the theory that too close inbreeding was the cause.

Fishkeeping has long been considered as a joke by folk who have yet to acquire the habit, but one man, Dave Snyder in Denver, Colorado, has successfully combined jokes and fish. His store sells the usual fish and hobby equipment but also houses a store selling magic tricks, jokes, party gags, even stamps and coins. A man of many parts, Dave is also a magician himself when he finds the time from his other interests of racing cars and shooting. Wonder if he can explain the 'disappearance' of fish from my tanks occasionally?

## What's New?

Continued from page 276

menu. Miracle San Francisco Bay Brand Brine Shrimp is supplied in transparent plastic containers holding a minimum of 4 grams (about one-seventh of an ounce; price 4s 6d) of the lumps. Information on the pack shows that 0.1% of ox blood as a 'fish attractant' is added to the food, and there's no doubt that it brings most fishes rushing to the shrimp when a piece is floated on the aquarium surface. It seems likely that before the freeze-drying process the shrimps are placed in fresh water, so that salt content of this food is minimal and use of it will not cause salinity of the aquarium water.

## Fish Book Best-seller

NOW in the publisher's category of 'best-seller' is Derek McInerney's well-known ALL ABOUT TROPICAL FISH, the enlarged third edition of which was published last month. First appearing in 1958, the book's two earlier editions were reprinted almost annually to cope with continually rising sales. It has sold over 25,000 copies all over the world, including some to countries behind the Iron Curtain.

In the latest edition, revisions to the text incorporate the latest information on fish breeding and most of the popular fishes of recent introduction, such as emperor tetras, phantom tetras and black neons, are now included. The most recent findings on breeding neons and cardinals are presented fully; the prevention of neon disease and a new white spot cure are other fresh topics. Pages now total 520, with

120 colour plates, 220 black and white photographs and line drawings, and the new price is 85s.

## Aquarium Lighting

FLUORESCENT lighting for aquaria, including the tubes giving coloured light, is used by many fish-keepers these days, and it is likely that it will be used much more now that a compact unit for the lighting gear has been put on the market by Inter-Pet. This is the Convert-A-Lite, which measures approximately 9 in. by 2 in. by 2 in. and weighs about 3 pounds, a decided improvement on the rather cumbersome units previously available. Two leads for attachment to the tube are provided. Price of the Convert-A-Lite is 58s 6d. The unit is intended to hang on the wall near the aquarium, and will supply tubes 15 in. to 36 in. long.





### Are Live Foods a Risk?

*How great is the risk of introducing disease into a tank when feeding live food to fishes?*

Any live food that is conveyed in water from unknown sources can carry in that water parasites and pests. However, simple precautions can be taken that so reduce this danger as to make it practically negligible. *Daphnia* and glass worms can be washed in a fine net under a gently running tap before being emptied into a tank. Newly purchased *Tubifex* worms have almost certainly been kept under running water by the supplier in any case but, to make certain that the worms have disengaged all the mud inside them, they can be placed in a shallow dish and kept under a gently running tap for some hours. Dead worms will also be washed away by this means and the tight cluster of bright red worms remaining will be safe for feeding. *Tubifex* worms can also be washed in one of the general aquarium antiseptics sold for this purpose. *Tubifex* worms may thrive in water carrying sewage, but it is not always remembered that because of this they come from waters too polluted to carry fishes. They do not, in fact, come into contact with a number of parasites such as those of white spot or velvet and they are not known to be hosts to either of these pests.

### Glass 'Worms'

*My dealer occasionally has glass worms for sale. Are these a satisfactory live food?*

Glass worms (*Chaoborus*), also known as ghost worms, are the aquatic larvae of the plumed gnat and begin to come into the shops for sale in the autumn. They are large (about  $\frac{1}{2}$  in. long) and although transparent are rather tough. Small fishes cannot cope with them and they should certainly not be used as food in breeding tanks or tanks where

there are fry, as they may well eat these. They are a very suitable food for larger fishes, however, and for these are a useful live food at a time when *Daphnia* is in short supply. They are also easier to keep alive than *Daphnia* and can be stored in quantity in jars or small tanks.

### Bubbles of Gas

*I have noticed small bubbles on the stones recently in my tank and sometimes a large bubble rises up to the top of the water. Are these bubbles likely to be the result of poisonous gases?*

In a tank newly filled with water it is not unusual for gases discharged from the water to form small bubbles on all the surfaces, and then to disperse by the next day. Gas bubbles in the established aquarium can arise from two main sources. Plants and thread algae may form small bubbles of oxygen, in strong light, which may become trapped by the leaves or threads but do no harm. Decay of vegetable material or fish food in the gravel, however, can lead to the production of marsh gas bubbles, and this is a bad state of affairs because it indicates pollution in the aquarium. A stick poked in the gravel, should reveal whether there is trouble there; if there is, the gravel will have become black and disturbing it will release many more bubbles of gas. Cleaning out the aquarium and replacement of the gravel is the only remedy for this. Care in feeding must be exercised to avoid recurrence of the trouble.

### Young Orfe

*I have recently acquired some young golden orfe about 2 in. in length. Could you tell me something of their habits and whether they will survive the winter in an outdoor pool 12 ft. by 9 ft.? Also I have an American*

*water hyacinth. It does not look hardy. Should I keep it indoors during the winter?*

Golden orfe are very suitable fish for the garden pond. They are quite hardy and grow to a good size (12-15 in.) They are also active, fast-swimming fish that keep well up to the surface, where they take flies from the top of the water. However, young orfe acquired late in the year will have no opportunity to build up reserves for the winter fast and they should be wintered in an inside tank. They do, however, like well-oxygenated water and must on no account be overcrowded. A 24 in. by 12 in. by 15 in. tank at least would be required for six small orfe. They will also require live foods, preferably *Daphnia*, glass worms and *Tubifex*.

Water hyacinth (*Eichornia crassipes*) is only a semi-hardy plant. It is not an easy plant to winter, but it is best done by planting it in peat, keeping it just moist, in a cool but frost-free place.

### Green Pond

*I have constructed a garden pool and introduced fish to it. Everything seems to be well except that the water has turned dark green and the fish now cannot be seen. Can you help me, as it is very unsightly.*

The green of your newly constructed pond is caused by the microscopic water plant, algae, the growth of which depends on the intensity of light. Almost all new ponds turn green like this and will clear in time when the substances in the water on which the plant feeds have become exhausted. For this reason, the water in the pond should not be replaced by fresh water as this will only give the plant new encouragement. The same greenness may well become apparent again next spring as the intensity of the light increases after the dark winter days. It is, of course, quite harmless to the fishes who do, indeed, thrive in such water.

### Peacock-eyed Bass

*I have recently purchased two peacock-eyed bass, each about 1 in. in length, and have placed them in an aerated tank (18 in. by 10 in. by 10 in.)*

*Continued on page 292*

## Results of PETFISH MONTHLY'S Photo competition



**Category I: Black and white photographs**

- (a) Fish/aquarium scene. First prize (£5) to Mr G. Cameron (4 Bellevue Place, Edinburgh 7): angel fish with fry 9 days old.  
(b) Garden pond. No awards.

**Category II: Colour prints and transparencies**

- (a) Fish/aquarium scene. First prize (£5) to Mr F. Parsons (26 Woodlands Road, Farnborough, Hants.): blue fighter, male (2½ in. by 2¼ in. transparency).  
(b) Garden pond. First prize (£5) to Mrs P. Whittington (The Grange Coach House, Bonehurst Road, Hooley, Surrey): her own garden lily pond (35 mm. transparency).

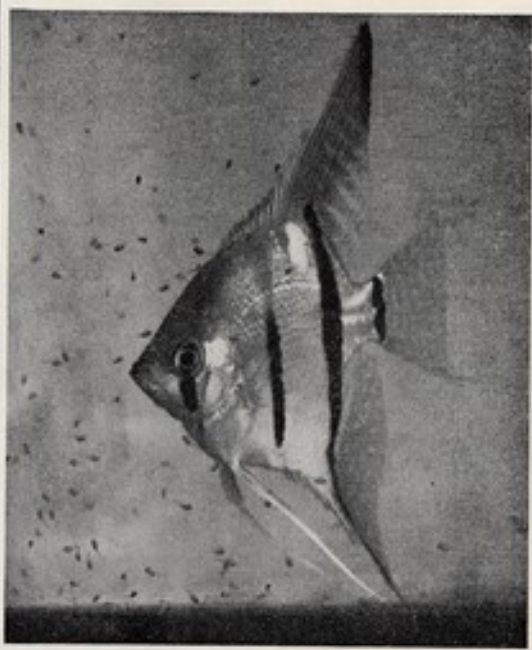
Prizes for runners-up have been sent and a selection of their winning entries will be included in next month's issue.



A LARGE number of entries was received for PETFISH MONTHLY'S Photographic Competition from our readers, and photographs continued to reach us right up to the closing date at the end of October. Entries in the category for colour prints and transparencies were in the majority, transparencies being the more popular of these, and disappointingly few black and white photographs were received. Because of this we were unable to print as many examples from the entries as we had planned to do during the course of the Competition, since good black and white reproduction is not always achieved from colour material. Surprisingly, pond picture entries in both colour and black and white categories were very few, and these generally were poor in that the ponds shown were seldom photogenic. Therefore the fish/aquarium scene entries provided most of the work for the judges.

Here, although most entries were technically good, perfectly focused and exposed, too many competitors were content to submit pictures in which the composition was badly at fault, fishes often being shown with the tail 'out of shot' or obscured by plants etc. The best pictures were very good indeed, and we had to take into consideration the particular difficulties that might have been presented to the photographers by the individual subjects chosen, when our final assessment was made.

It is obvious that now there are far more people obtaining first-class results in this difficult field of aquarium photography than ever before. However, it is significant that most of them seem to be photographing in colour, with which it is far easier to obtain an acceptable result than with the limited range of monochrome. When looking at the winning pictures in this issue, allowance must be made for some loss of quality because of processing limitations for those pictures that were in colour in the originals.



## British Aquarists' Festival 1966

Over 7,500 visitors attended the 2 days' show



WITH attendance figures up, with 1000 fishes entered, with the exhibition area greater than ever before and with the best show layout yet presented, this year's British Aquarists Festival, organised by the Federation of Northern Aquarium Societies, more than established its claim for the title of Britain's biggest and most spectacular annual aquarium display. Officials of the F.N.A.S. responsible for it deserve the highest praise. Visitors could not fail to be impressed; the only complaint heard was that there could have been more trade stands.

Show Report by H. WHITE  
(Hendon A.S.)

Of just over 70 clubs affiliated to the F.N.A.S., some 29 supported

## Nautical Themes Win the Display Awards



(Above) Gorton & Openshaw A.S. entry: second

(Right) Blackpool A.S. entry: third

(Top of page) Isle of Wight A.S.: winning entry

### Isle of Wight A.S. goes north to win first prize with their Hovercraft



this year's Festival. Two societies came from the south, Bournemouth, and the Isle of Wight, and it was the ISLE OF WIGHT A.S. that gained first prize for a club display with what was a most marvellous effort.

The subject was modern and so correct for the Isle of Wight—a model Hovercraft. Mr Ted Davison, an old Hendon member now living on the Isle who is the Society's secretary, gave me all the details. The model was half-scale, made from photographs supplied by Saunders Roe, the only modification being to the region of the craft where the fish tanks were let in as windows. The idea was finalised in August and built as a club project. Its entry for the B.A.F. necessitated a journey of 270 miles with a very willing



team—the ladies producing food cooked on Primus stoves during the three days spent assembling the craft at the hall. By creeping beneath the Hovercraft it was possible to see its excellent construction, all the parts screwed together, and particular care had been taken with the wiring as this item had cost the Society first place in an exhibit once before. Incidentally, in the Isle of Wight entry for the plant class was an *Echinodorus ranzi* from Roy Skipper's original stock, so it was at least 10 years old!

Second place for best Society entry was gained by GORTON & OPENSHAW A.S., a genuine large sailing dinghy complete with rigged sail forming the main part of the design. BLACKPOOL A.S. secured third place with an enormous light-house, including sea gulls and lifebuoy—quite a change from their last year's mermaid.

It was disappointing not to see the British Killiefish Association, and in fact the toothcarps on show were few and disappointing. The Fancy Guppy Association was also missing this year but the new MARINE STUDY AQUATIC SOCIETY OF GREAT BRITAIN was represented.

For those who like to see big fishes, it was possible to see on the stand of the TROPICAL AQUARIUM BREEDERS *Ophiocentrus garmani*, *Crenicichla lepidota* and *Plecotomas*, all about 12 inches in length. MERSEYSIDE A.S. showed some fine Siamese tiger fish, tinfoil barbs, piranha, yellow-finned barbs, snake-skin gourami, Siamese catfish and good specimen cichlids.

Fishes on the trade stands included some interesting ones, among them some piranha fry imported from their American breeder, all the varieties of discus (at prices from £25 to £45 a pair), large puffers, electric catfish and Siamese fire eels. South Coast Aquatic Nurseries Ltd. were demonstrating the Speeda Cleaner and the Halvin fish-breeder, and on the stand of Aquatic Hobby Ltd., presenting Kingfish food, was a spectacular marine tank. Walter Smith Ltd. of Manchester displayed a good collection of reptiles.

With the increase in interest in tropical marines these days I cannot let pass without a mention what is possibly the best display in this country—in Belle Vue's Aquarium and Reptile House; it is magnificent.

## British Aquarists' Festival 1966

Their clouded demoiselles had spawned four times but had not raised their young. I was interested to learn that the dragon fish will eat red or orange goldfish but if they are given black or yellow ones these are ignored. A fine 6-8 in. painted trigger fish lives on about six mussels a day, taking prawn as an alternative. All the tank water is natural sea water from Blackpool. The bat fish (*Platax pinnatus*) were glorious. In fact all the fishes and reptile exhibits were superb—a credit to Belle Vue's curator and staff.

### Some Society Displays

CRESWELL & D. A.S. had built a colliery pit-head scene, complete with overhead winding gear and



Colliery pit-head scene by Creswell & D.A.S.

miner's lamps, that was highly pointed. At one end of the block housing the aquaria was an attractive grotto.

GARFORTH & D. A.S. chose the World Cup as the theme for their display but in October this had unfortunately lost its topicality.

DEWSBURY & D. A.S. used a pottery willow pattern and bamboo background for their tanks.

CITY OF SALFORD A.S. staged some fine furnished aquaria with

some good guppies, and, sign of the times, a marine aquarium.

BELLE VUE A.S. had the J. Kelly Trophy-winning Novelty Aquascape with the television title 'Bewitched' and also an ingenious moving 'Aqua-School' scene.

BRADFORD & D. A.S. are to be specially commended for the excellent labelling of the eye-level display of tanks.

LYTHAM A.S. presented their exhibits in a mill house complete with a realistic moving water wheel.

CHAPELTOWN & D. A.S. built a wall with the aquaria inset as windows, complete with fold-back shutters.

NORTHERN GOLDFISH & PONDKEEPERS S. displayed the first-prize-winning Aquascape furnished aquarium in the form of a miniature garden and pool.

NORTH WARKS A.S. arranged their aquaria in two side panels covered by a hand-painted 'fishy' paper and showed a sunken 'Moonraker' as centrepiece.

SHEFFIELD & D. A.S. had a very neat and prettily decorated display with a nicely lighted central television 'Batman' scene (very popular with junior visitors, this one).

BURY & D. A.S. showed their aquaria in a square block carrying a clock face around which the tanks were arranged.

### Results in Full

Best fish of the show award went to Mr J. Smith for his dwarf gourami (Blackpool & Fylde A.S.), with which he also won the Wally Grove Press trophy for the best tropical fish. The best coldwater fish challenge trophy was awarded to Mr H. Preshall (Ostram) and the awards for best fishes (other than best fish in show) went to Mr K. Parson (tropical egg-layers, Merseyside A.S.), Mr J. R. Smith (tropical livebearers, Bradford & D.A.S.) and Mr H. Preshall (coldwater, Ostram A.S.). Other results were:

Furnished aquaria. Challenge trophy for society furnished aquaria, tropical: 1, Bury & D.A.S. (84 pts); 2, Blackpool & Fylde A.S. (80 pts); 3, Tyneside A.S. (77 pts). Society furnished aquaria, coldwater: 1, North Warwickshire A.S. (75 pts); 2, Tyneside A.S. (75 pts); 3, Blackpool & Fylde A.S. (72 pts). Walter Smith Commemoration shield for individual furnished aquaria, tropical: 1, Mr J. Taylor (Blackpool, 84 pts); 2, Mr K. Prescott (Belle Vue, 78 pts); 3, Mr D. Carr (Bradford, 76 pts). The Hammond trophy for individual furnished aquaria, coldwater: 1, Mr J. H. Hood (Tyneside, 79 pts); 2, Mr L. W. Male (N. Warks., 73 pts); 3, Mr E. T. Davidson (Isle of Wight, 72 pts). Challenge

## British Aquarists' Festival 1966

trophy for best 'Aquascape' furnished aquaria: 1, Mrs D. M. Matthews (N.G.P.S., 81 pts); 2, Mr B. Halpington (Workop, 78 pts); 3, M. Knowles (Sheffield, 77 pts). Novelty 'Aquascape' trophy: 1, Mr Eastham and Mr Lester (Belle Vue, 81 pts); 2, M. Knowles (Sheffield 77 pts); 3, Mrs K. Cassidy (72 pts).

**Coldwater Fish.** Challenge trophy for common goldfish and comets: 1, Mr W. H. Ramsden (N.G.P.S., 90 pts); 2, Mr N. Chadburn (N.G.P.S., 85 pts); 3, Miss C. Sibson (Workop, 79 pts). Challenge trophy for shubunkins (Brant and London): 1, Mr B. M. Rothwell (N.G.P.S., 82 pts); 2, Mr W. H. Smith (Stretford, 81 pts); 3, Mr R. M. Rothwell (N.G.P.S., 80 pts). Nottingham shield for moors: 1 and 2, Mr A. Philipson (87 and 83 pts). Walter Smith challenge trophy for veiltails: 1, Mr W. H. Ramsden (N.G.P.S., 72 pts); 2, Mr W. H. Smith (Stretford, 68 pts). Chester shield for a.o.v. fancy goldfish, fantails, orandas, lionheads and any 'new' variety: 1 and 2, Mr A. Philipson (88 and 87 pts); 3, Mr H. Penhall (Osram, 84 pts). Derby shield for any species of coldwater fish other than those in Classes 4 to 8: 1, Mr H. Penhall (Osram, 91 pts); 2, Mr W. H. Ramsden (N.G.P.S., 85 pts); 3, Mr E. T. Davison (Isle of Wight, 82 pts).

**Livebearers.** Challenge cup for guppies: 1, Mr B. Womerscroft (Heywood, 79 pts); 2, Mr P. Clarke (Gosforth, 74 pts); 3, Mr H. W. Hughes (T.A.B., 74 pts). Challenge cup livebearers a.o.v. pairs: 1, Mr J. R. Smith (Bradford, 76 pts); 2, J. and H. Dennis (Workop, 73 pts); 3, Mr Scott-Morgan (71 pts). Livebearers a.o.v. single fish: 1, Mr J. R. Smith (Bradford, 80 pts); 2, Mr Scott-Morgan (78 pts); 3, Mr J. Tunney (Chapeltown, 77 pts).

**Cichlids.** Challenge cup for angels a.o.v.: 1, Mr F. Karpinski (Blackpool, 78 pts); 2, Mr J. Allen (T.A.B., 74 pts); 3, Mrs K. Cassidy (73 pts). Lancaster trophy for dwarf cichlids pairs: 1, J. and H. Dennis (Workop, 81 pts); 2, Mr A. Buckley (Bury, 78 pts); 3, Mr A. Bebbington (Stretford, 71 pts). Dwarf cichlids single fish: 1, Mr R. Rowbotham (Macclesfield, 81 pts); 2, J. and H. Dennis (Workop, 80 pts); 3, Mr W. Bradford (Sheffield, 78 pts). Challenge cup for cichlids a.o.v.: 1, Mr E. G. Hunt (Sunderland, 84 pts); 2, Mr F. Mulla (Merseyside, 81 pts); 3, Mr R. Warne (Bradford, 81 pts).

**Anabantids.** Challenge trophy for fighters: 1 and 2, Mr T. Smith (Tadcaster, 82 and 77 pts); 3, Mr R. A. Asherton (Sunderland, 73 pts). Challenge trophy for gouramis a.o.v. and paradise: 1, Mr R. Haller (56 pts); 2, Mr F. Mulla (Merseyside, 73 pts); 3, Mr W. Parkin (T.A.B., 72 pts). Gouramis a.o.v. and paradise single fish: 1, Mr J. Smith (Blackpool, 92 pts); 2, Mr G. Wigglesworth (Tadcaster, 75 pts); 3, Miss C. Sibson (Workop, 72 pts).

**Barbs.** Challenge trophy for barb pairs: 1, Mr K. Parkes (Merseyside, 80 pts); 2, J. and H. Dennis (Workop, 82 pts); 3, Mr A. Firth (Bradford, 80 pts). Barbs a.o.v. single fish: 1, Mr R. Warne (Bradford, 80 pts); 2, Mr A. Firth (Bradford, 79 pts); 3, Mr K. Parkes (Merseyside, 78 pts).

**Characins.** Challenge cup for characins: 1, Mr C. Holdsworth (Bradford, 85 pts); 2, Mr F. A. Robinson (Merseyside, 83 pts); 3, Mr R. Womerscroft (Merseyside, 82 pts).

**Carp and minnows.** Warwick trophy for carps and minnows a.o.v.: 1, Mr R. Hughes (Belle Vue, 86 pts); 2, Mr M. Fidler (Belle Vue, 84 pts); 3, Mr E. Fisher (Sheffield, 81 pts).

**Catfish.** York trophy for catfish: 1, Mr W. Booth (T.A.B., 76 pts); 2, Mr C. Holdsworth (Bradford, 75 pts); 3, Mr D. Sides (Chapeltown, 68 pts).

**Toothcarps.** Challenge trophy for applying toothcarp pairs: 1, Mr W. Parkin (T.A.B., 75 pts); 2, Mr L. Greenhall (Tadcaster, 71 pts); 3, Mr M. Fidler (Belle Vue, 66 pts). Existing toothcarps a.o.v. single fish: 1, Mr B. Creighton (Salford, 74 pts); 2, Mr D. Craven (Sheffield, 73 pts); 3, Mr W. Parkin (T.A.B., 72 pts).

**Loach.** Loach trophy for loach: 1, Mr K. Parkes (Merseyside, 79 pts); 2, Mr W. Taylor (Osram, 76 pts); 3, Mr C. Holdsworth (Bradford, 75 pts).

**Rose Bowl for a.o.v. other than classes above.** 1, Mr R. Asherton (Sunderland, 80 pts); 2, Mr L. McCourt (Gorton, 81 pts); 3, Mr A. Harper (Macclesfield, 84 pts).

**Breeders.** Challenge trophy for breeders egg-layers: 1, Mr L. McCourt (Gorton, 80 pts); 2, Mr J. Smith (Blackpool, 78 pts); 3, Mr S. Earnshaw (Chapeltown, 75 pts). Challenge trophy for breeders livebearers: 1, Mr J. Tunney (Chapeltown, 85 pts); 2, J. and H. Dennis (Workop, 83 pts); 3, Mr Crook (Stretford, 82 pts). Challenge trophy for breeders coldwater: 1, Mr N. S. Farrall (N.G.P.S., 81 pts); 2, Mr W. H. Ramsden (N.G.P.S., 78 pts); 3, Mr N. S. Farrall (N.G.P.S., 78 pts).



A raised platform behind the eye-level sales tanks on Keith Barraclough's stand facilitated serving by staff

**Plants.** Challenge trophy for plants a.o.v.: 1, Mr R. Womerscroft (Bradford, 83 pts); 2, Mr C. Holmes (Bradford, 79 pts); 3, Mr A. Robinson (Stretford, 79 pts).

**Marine.** Challenge trophy for best marine furnished aquaria: 1, Mr J. Eden (Marine Study, 71 pts); 2, Mr A. V. Partington (Marine Study, 64 pts); 3, Mr A. Harper (Marine Study, 58 pts).

**Society staging.** Special prize to society whose staging is nearest and most attractive: 1, Isle of Wight; 2, Gorton & Openshaw; 3, Blackpool & Fylde. Special prize to society whose members win most points for its four highest pointed awards: Northern Goldfish and Pondkeepers' Society.

**Individual awards.** John East Memorial challenge trophy for individual exhibitor gaining most awards: J. and H. Dennis (Workop). Award for largest number of entries, individual: Mr A. Deakin (Creswell). Award for most breeders class awards: Mr N. S. Farrall (N.G.P.S.). The L. Lewis shield for best pair of swordtails: J. and H. Dennis (Workop). 'Roses' shield for Lancs. v. Yorks. inter-society competition: Lancashire.



Demonstrations of filters by Mr E. Bowler on the stand of South Coast Aquatic Nurseries Ltd

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Continued from page 287

with two goldfish, one comet, two catfish and two telescopic-eyed moors. Although the bass seem healthy, they eat very sparingly and do not swim about much.

Peacock-eyed bass (*Centrarchus macropterus*) can become very tame in the aquarium and, when settled in, are quite lively fish. At first, however, they may be very shy and are most at home in an aquarium planted with thick clumps of aquatics in which they may hide.

They also react very strongly to changes in water conditions and prefer medium-hard water. Above all, they require live food, especially small earthworms, *Tubifex* and white worms, and will rarely eat dried food. Their nervousness may persist for quite a long time, and they will eventually require much more swimming space than is available in the 18 in. tank. In any case the tank is too small for the fish listed even if there is aeration, and it would be advisable to keep the goldfish, comet and moors in one tank and the bass and catfishes in a bigger tank, perhaps one 24 in by 12 in. by 15 in.



# 'Casino Royale's' Kitchen Aquarium



**A super aquarium  
used in the latest  
James Bond thriller film**

In the film, when Evelyn Tremble (Peter Sellers, above) visits the spy Vesper's (Ursula Andress) London apartment she shows him her huge kitchen aquarium. Others in a long list of stars in Charles K. Feldman's 'Casino Royale' (a Panavision and Eastmancolor production for Columbia release soon) are David Niven, Orson Welles, Woody Allen, Deborah Kerr, William Holden, Charles Boyer, John Huston, Barbara Bouchet, Kurt Kasznar and Gabriella Licudi

that both Ursula Andress and Peter Sellers showed great interest in the aquarium and Miss Andress made a point of going to see what she called 'her fishes' every morning she was at the Shepperton Studios.

CASINO ROYALE was the first-ever James Bond story written by Ian Fleming, but it is not the only one to involve aquatic or fish settings. We are obliged to Alan Town of Aireborough and District Aquarist Society for pointing out such episodes from other stories. In LIVE AND LET DIE a gun battle takes place in a warehouse in which tanks of tropical fish are kept, and the tanks and their contents are fully described. In this story gold sovereigns are smuggled into America hidden in the gravel of tanks containing poisonous scorpion fish. FROM RUSSIA WITH LOVE is a story having the description of a fight to the death between two Siamese fighting fish and in DR NO, Ian Fleming describes an undersea laboratory with a large glass wall through which the fishes outside can be seen. FOR YOUR EYES ONLY and THUNDERBALL are other Bond stories in which tropical fishes receive mention. Mr Town writes: 'It makes you wonder if apart from having a soft spot in his stories for girls, Ian Fleming also had one for beautiful tropical fish'.

The aquarium in the kitchen of CASINO ROYALE has next to it a deep-freeze cabinet into which human bodies are dropped. Perhaps if he thought of it, Ian Fleming's aquarium could have housed piranhas to aid in the operation of corpse disposal!

CINEMA-GOERS will recognise the beautiful profile of the young lady on PFM's front cover this month as Miss Ursula Andress, photographed through an aquarium which features in 'Casino Royale', her latest film made with co-star Peter Sellers and shortly due for release.

This giant aquarium was specially made for the film studios by the well-known aquarium manufacturers Lee Reid and Co (London) Ltd., and its L shape forms part of two walls of the film's kitchen scene. The lengths of its longest sides are 10 ft.

6 in. and 5 ft. 6 in., the width is 2 ft. and with its 3 ft. depth the capacity is over 500 gallons. The frame is of angle-iron, although for the film this was covered with gilt strip to give the appearance of gold plating, and the glazing with  $\frac{1}{2}$  in. polished plate glass was carried out by the makers on the set at the studios.

Mr Ted Lee set up the tank with rocks and shells as decor, stocked it with goldfish and rainbow trout and looked after it for the 6 weeks it was required for film-shooting. Aeration was supplied from an oxygen cylinder. Mr Lee tells us



**REIGATE & REDHILL A.S.** have been getting together with other clubs at their October meetings. At the first, an inter-club brains trust and table show was held jointly with **KINGSTON** and **MID-SUSSEX** societies. The trust panel included Mr K. D. Fawcett, who is Reigate & Redhill president, and some years ago was the chairman of Kingston A.S. First prize-winners in the show were Mr R. Biggs (Kingston) for danios/rasboras and also barbs. Mr G. Bass (Reigate) took first in platys. On 17th October a party of **PORTSMOUTH A.S.** members visited Reigate. Though traffic congestion delayed their arrival, the visitors stayed until midnight and gave a slide show of fish and plants. There was also a raffle and an auction. Highlight of the evening was a table show of 12 tropical and 12 coldwater fish per club, judged by Mr C. Brown and Mr R. Esson. The result was a narrow win for the hosts in both sections.

**LYTHAM A.S.** held their first annual table show recently and attracted over 60 entries. Awards were won as follows:

Guppy: Mr W. Langridge. Mollies, sword and plery: Mr E. Smith, Mr W. Mathews, Mr C. Langridge. Angli: 1 and 2, Mr K. Willett, Mr A. Scott. Dwarf cichlids: 1 and 2, Mr K. Townsend; 3, Mr D. Baker. Large cichlids: Mr W. Mathews, Mr K. Willett. Fighters: Mr D. Thompson, Mr K. Townsend. Anabantids: Mr K. Willett, Mr W. Mathews, Mr A. Scott. Characins, rasboras, White Cloud Mountain minnows and danios: Mr W. Mathews, Mr A. Scott, Mr C. Langridge. Catfish, loach, loach: Mr A. Scott, Mr W. Mathews, Mr E. Smith. Barbs: Mr K. Willett, Mr A. Scott, Mr D. Baker. A.O.V.: 1, Mr K. Townsend; 2, Mr C. Langridge. Pairs livebearers: 1 and 2, Mr W. Mathews, Mr K. Willett. Pairs egg-layers: 1 and 2, Mr K. Townsend, Mr E. Smith.

Best fish in show trophy, Mr K. Willett (90¢ pes). John Hall Trophy, Mr K. Willett. Senior annual trophy, Mr W. Mathews. Junior trophy, Master Colin Langridge. Guppy trophy, Mr W. Langridge. Medals were awarded for all classes along with prize cards.

The second show of the year held by the **CAMBRIDGE A.S.** was certainly their most successful show

ever. Added attractions were the entry of miniature aquaria and a display of locusts, praying mantis, scorpions and rare tropical fish. Mr Dixon of Luton, Beds, judged the entries and the awards were as follows:

Best fish in show was a *Panchar playfai* owned by Mr R. K. Edney. Coldwater: 1 and 2, Mr A. F. Hulver; 3, Mr R. W. W. Bass. Best barb: 1, Mr R. A. Ott (ashborn); 2, Mr R. A. Ott (summing); 3, Mr A. F. Hulver (cherry). Livebearers: 1, Mr A. F. Hulver (platy); 2, Mr R. K. Edney (sword-tail); 3, Mr R. A. Ott (the-fin sword). Cichlid: 1, Mr A. F. Hulver (Jack Dempsey); 2 and 3, Mr R. W. W. Bass (trident) and (Tropaeus). Anabantid: 1, Mr R. K. Edney (topalini); 2, Mr A. F. Hulver (lory); 3, Mr G. P. Rivett (dwarf climbing perch). Guppies: 1, Mr W. Ingrove; 2, Mr A. F. Hulver; 3, Mr R. K. Edney. Catfish and loach: 1, Mr G. P. Rivett (flying fox); 2, Mr A. F. Hulver (unmouset out); 3, Mr A. F. Hulver (Ruba). A.O.V. egg-layers: 1, Mr R. K. Edney (Panchar playfai); 2, Mr G. P. Rivett (Aphlomeniscus australis); 3, Mr R. Gantrey (paradise). Pairs: 1, Mr G. P. Rivett (tutus); 2, Mr R. K. Edney (guppies); 3, Mr A. F. Hulver (moon platy). Brood: 1, Mr R. K. Edney (guppies); 2, Mr R. K. Edney (cray barbs); 3, Mr R. K. Edney (topalini). Mini-aquaria: 1, Mr A. F. Hulver; 2, Mr P. Sanderson; 3, Mr G. P. Rivett. Characins: 1, Mr G. P. Rivett (temperer); 2, Mr K. Able (black widows); 3, Mr P. Sanderson (black widows).

**MR K. FARRANT** presided at the 4th annual dinner of the **LLANTWIT MAJOR A.S.** and welcomed the president, Alderman P. J. Smith, C.B.E. and 36 members and guests. Grace was said by Master Keith Johns and was followed by a very enjoyable chicken dinner. Toasts were proposed by the chairman, Mr P. Battista and Mr Songhurst and replied to by the president and Mrs I. Taylor of Barry on behalf of the guests. The following Cups were presented: The Wing/Comdr. Smith Cup to Mr D. Songhurst as member of the year. The Miles Thomas Points Cup and the Stampton Cup to Mr K. Farrant. The President's Breeders Livebearers Cup, the Jimmy Holmes Memorial Cup, the Breeders Egg-layers and E. & S. Steer Guppy Cup to Mr R. Wigg. Replica cups were also presented to last year's winners: Mr A. Ibbertson, Mrs A. Ibbertson, Mr W. Ward and Mr R. Wigg.

The following day Mr Johns, K. Johns, Mr P. Battista and Mr R. Wigg attended the F.G.B.S. assembly in Bristol where they met many members from the Midlands and the Bristol area. A large number of guppies were to be seen on the show bench. Mr P. Battista took first prize in a class of ten wedgetail females. In a class of 26 coloured

veiltails Mr R. Wigg took first, second, third and fourth, also third in a class of ten breeders females. As usual everyone enjoyed the hospitable welcome of the Bristol and Bath section members, and the ladies provided excellent refreshments.

Meetings of the society are held on the second Tuesday of each month at 7.30 p.m. Information from the secretary, Mr R. S. Wigg, 17 Ham Lane, South, Llantwit Major, Glam.

AT the meeting held at **KINGSTON & D. A.S.** at the end of October classes and results were:

Breeders egg-layers: 1, Mr R. Cooper (Rivulus maderi); 2, Mrs D. Biggs (black-top gourami); 3, Mr D. Ellis (Rivulus maderi). Breeders livebearers: 1, Mr G. Greenhall (Lonia vittata); 2, Mr G. Greenhall (mari-gold platy); 3, Mr R. Cooper (zebra swordtail). Breeders coldwater: 1, Mr D. Ellis (single-tail goldfish); 2 and 3, Mr M. Bartlett (single-tail goldfish). Pairs: 1, Mr G. Greenhall (Lagodon stada); 2, Mr D. Ellis (Crypsocorys bartolana). A.O.V. livebearers: 1, Mr G. Greenhall (black sword); 2, Mr R. Biggs (half black guppy); 3, Mr G. Greenhall (London sword).

AT the first open show of the **ATHERSTONE A.S.** there were 17 classes and a record entry of 326 from all over the Midlands. Mr Paul Stokes and Mr J. Williams gave a talk and slide show during the judging of the killifish. The shield given by the chairman, Mr H. E. Jones, for the best fish in show will be held for 12 months by Mr M. G. Davies of Bramcote, Notts. Awards were presented by Mr Frank Randall of Coventry Aquarist; the raffle prize was a 2 ft. furnished aquarium and the lucky winner was Mrs G. Godfrey from Woodhouse. Mr D. Delves, the show secretary, was congratulated by all for doing a first-class job.

At the beginning of October the second round of the **MIDLAND AQUARIST LEAGUE** was also held at the Memorial Hall. Mr Jim Kelly delighted the audience with a lecture and slides on his visit to America. Classes for the show were: 1, Anabantids; 2, cichlids; 3, breeders egg-layers and the results for rounds 1 and 2 were: Atherstone, 16 and 11; Coventry, 13 and 16; Leamington 14 and 15; Northampton, 9 and 8; Rugby, 16 and 15. Secretary of the club is Mr E. A. Davies, 4 Ambien Road, Atherstone, Warwickshire.

FILMS made by Mr B. Bell and



his commentary on breeding fishes provided an entertaining evening for the WIMBLEDON & MERTON A.C. recently, who were also hosts to members of the Roehampton Club. Prospective new members should contact secretary Mr I. Garbutt, c/o 1 Balfour Road, London, S.W.17.

AT the annual general meeting of the WEDNESBURY A.S. held in September the following officers were elected: president, Dr P. Hammer; vice-presidents, Mr Cook, Mr Griffiths and Mr Hornby; chairman, Mr E. Hyde; vice-chairman, Mr D. Highfield; secretary, Mr B. Coley, 55 William Green Road, Wednesbury, Staffs; treasurer, Mr E. Skidmore; show secretary, Mr G. Rothin; social secretary, Mr W. Postans; committee members, Mr W. Mountford, Mr F. Boulton, Mr H. Downing. The chairman, Mr E. Hyde, paid a warm tribute to the retiring secretary, Mr B. Woollaston. Owing to business commitments Mr Woollaston did not seek re-election; but he was held in high regard by all and it was hoped that, whenever he found the time, he would be able to attend meetings of the society of which he was a founder member. Meetings of the club are held on the first Monday evening in each month at the Prince Regent Inn, Stafford Street, Wednesbury at 8.0 p.m. and new members will be made very welcome.

TWO matters frequently giving rise to discussion among aquarists received full airing at a recent meeting of the TOTTENHAM & D.A.S. but no solutions were reached. The showing of fish and aquaria was the subject discussed and the discrepancies in the pointing of fish for size raised many complaints but no alternative could be suggested to the present imperfect, but workable, system that depended on the differing experiences of the judges. Similarly, a majority felt that fish fed on a colour food should be disqualified but no practical suggestions could be devised for identifying such fish at shows.

THE SECRETARY of the RADLETT section of the FANCY GUPPY ASSOCIATION reporting on their annual show in September states that there were 215 entries (or

350 guppies on show). Mr W. G. Phillips and Mr Jim Kelly believed it to be one of the biggest shows they had seen in a long time—the standard of the fish was such that they would hold their own in any guppy show and that includes America. 'Does this mean that the guppy is at last coming in to its own?' asks Mr Goodall. 'Let's hope so, for what other fish lends so much to the hobbyist?' Detailed results were:

Debutant: 1, Mr Goodall and Mr Moutils (75 pts, silver star); 2, Mr Goodall and Mr Moutils (74 pts); 3, Mr R. George (73 pts). Ventrals: 1, Dr J. Atkins (73 pts); 2, Mr H. Harris (72 pts); 3, Mr R. George (72 pts). Fantails: 1, Mr G. Milne (73 pts, silver star); 2, Mr Goodall and Mr Moutils (74 pts); 3, Mr R. Hall (73 pts). Swordtails: 1, Mr T. Haller (74 pts); 2, Mr T. Haller (73 pts); 3, Mr M. Richardson (73 pts). Flagtail: 1, Mr R. Clark (77 pts); 2, Mr R. George (76 pts); 3, Mr T. Hibbert (74 pts). Colour class: 1, Mr D. Protheroe (77 pts); 2, Mr R. Clark (73 pts); 3, Mr R. Fowler (72 pts). A.o.v. males: 1, Mr A. Jamieson (74 pts); 2, Mr K. Brown (73 pts); 3, Mr A. Jamieson (73 pts). Superfantail: 1, Mr Goodall and Mr Park (77 pts); 2, Mr D. Curry (75 pts); 3, Mr J. Thomas (74 pts). Wedge-tail: 1, Mr M. Richardson (77 pts); 2, Mr R. Fowler (74 pts); 3, Mr J. Thomas (74 pts). Original: 1, Mr D. Protheroe (75 pts); 2, Mr J. Bacon (69 pts); 3, Mr A. Jamieson (68 pts). A.o.v. females: 1, Mr R. Fowler (73 pts, silver star); 2, Mr D. Curry (74 pts); 3, Mr D. Protheroe (73 pts).

Breeders Pairs: 1, Mr D. Curry (72 pts, gold star); 2, Mr Goodall and Mr Moutils (76 pts); 3, Mr D. Curry (75 pts). Breeders males: 1, Mr J. Hepp (77 pts, silver star); 2, Mr Bessford and Mr Jeffrey (74 pts); 3, Mr R. Hall (73 pts). Breeders females: 1, Mr Goodall and Mr Park (82 pts, silver star); 2, Mr Goodall and Mr Park (80 pts); 3, Mr R. Biggs (76 pts). Master breeders: 1, Mr Goodall and Mr Park (74 pts); 2, Mr Bessford and Mr Jeffrey (72 pts); 3, Mr J. Atkins (71 pts). Ladies a.o.v. guppy: 1, Mrs Hibbert (76 pts); 2, Mrs Goodall (74 pts); 3, Mrs Aylard (71 pts). Ladies breeders: 1, Mrs Curry (74 pts). Junior a.o.v. guppy: 1, John Stuard (76 pts); 2, Paul Stuard (75 pts); 3, Linda Curry (73 pts). Junior breeders: 1, Donald Curry (73 pts); 2, John Richardson (72 pts); 3, Howard Stuard (70 pts). Non-member class: 1, Mr J. Lambert (74 pts); 2, Mr J. Cavilla (69 pts); 3, Mr J. Cavilla (66 pts). Best fish in show: Mr Goodall and Mr Park, breeders females. Toughest shield for breeders pairs: Mr Don Curry. Best male: Flagtail (Mr R. Clark). Best female: Superfantail (Mr Goodall and Mr Park).

AIREBOROUGH & D. A.S. announce in their October bulletin that they now have a slide lecture of 50 slides that they will lend to any society either at home or abroad free of charge on the condition that they are lent a slide show in return. Two more slide lectures will be available shortly on the same conditions. All this was a result of a casual request to members to send in any odd slides that they might have available!

RESULTS have been received from the HUDDERSFIELD TROPICAL FISH SOCIETY open show held on the 11th September.

Swordtails: 1, Mr Cohen (Pontefract); 2, Mr B. Godfrey (Mansfield); 3, Mr F. Ledger (Huddersfield). Guppies: 1 and 2, Mr Walsingham (Haywood, Section winner); 3, Mrs Walsingham (Haywood). Mollies: 1, Mr Harrop (Rochdale breeders); 2, Mr Bredon (Hemsworth); 3, Mr A. Beasley (Haywood). Platys: 1, Mr D. Woodhead (Huddersfield); 2, Mr Kernshaw (Haywood); 3, Mr W. Booth (T.A.B.).

Small barbs: 1 and 2, Mr F. Gogarty (Oxton); 3, Mr E. Piper (South Kirby & D.). Large barbs: 1, Mr K. Parkes (Meresyde, best fish in show); 2, Mr Helin (Aireborough); 3, Mr Harrop (Rochdale breeders). Characins (under 3 in.): 1, Mr F. Gogarty (Oxton, section winner); 2, Mr D. Woodhead (Huddersfield); 3, Mr P. Moorhouse (Huddersfield). Channa (over 3 in.): 1, Mr E. Price (Gorton & Openshaw); 2, Mr R. Wilkinson (Halifax); 3, Mr K. Parkes (Meresyde).

Catfish and minnows: 1, Mr F. Gogarty (Oxton); 2, Mr A. Beasley (Haywood); 3, Mr Cohen (Pontefract). Sharks and flying fish: 1, Mr F. Mulla (Meresyde, section winner); 2, Mrs I. Bullymeant (Notts & D.); 3, Mr R. Wilkinson (Halifax). Fighters: 1, Mr A. Beasley (Haywood); 2, Mr F. Ledger (Huddersfield); 3, Mr Davies (Haywood). A.o.v. anabantids: 1, Mr C. Woodhead (Huddersfield); 2, Mr P. Mulla (Meresyde); 3, Mr Helin (Aireborough).

Dwarf cichlids: 1, Mr D. Turner (Mansfield); 2, Mr Barrer (Bradford); 3, J. and N. Bower (Mansfield). Large cichlids: 1, Mr J. Woodhead (Huddersfield, section winner); 2, Mr F. Mulla (Meresyde); 3, Mr L. Kaye (Huddersfield). Angels: 1, Mr P. Bone (Huddersfield); 2, Mr D. Woodhead (Huddersfield); 3, Mr M. Taylor (Haywood).

Toothcarps: 1, Mr Bullymeant (Notts & D.); 2, Mr A. Wood (Burnsley); 3, Mr D. Woodhead (Huddersfield). Small catfish and loaches: 1, Mrs A. Wiggins (White Rose A.C.); 2, Mr Bullymeant (Notts & D.); 3, Mr W. Booth (T.A.B.). Large catfish and loaches: 1, Mr W. Parkin (Huddersfield, section winner); 2, Mr K. Parkes (Meresyde); 3, Mr F. Mulla (Meresyde). Breeders livebearers: 1, Mr R. Wilkinson (Halifax); 2, Mr L. Kaye (Huddersfield); 3, Mr A. Beasley (Haywood). Breeders egglayers: 1, Mr Cohen (Pontefract); 2, Mr A. Newnham (Gorton & Openshaw); Mr E. Allen (Gorton & Openshaw). Pairs livebearers: 1, Mrs I. Bullymeant (Notts & D.); 2, Mr A. Beasley (Haywood); 3, Mrs McCourt (White Rose). Pairs egglayers: 1, Mr E. Price (Gorton & Openshaw, section winner); 2, Mr W. Parkin (Huddersfield); 3, Mr E. Price (Gorton & Openshaw). A.o.v. 1, Mr E. Piper (South Kirby); 2, Mr M. Dewhurst (Halifax); 3, Mr Joyce (Aireborough). Coldwater: 1, Mr Philipson (Accrington); 2, Mr Philipson (Accrington); 3, Mr D. Priestley (Halifax).

Juveniles (under 15 years): 1, Master S. Kaye (Huddersfield); 2, Miss A. Wiggins (White Rose); 3, Miss D. Wike (Huddersfield). Ladies: 1, Miss A. Wilkinson (Halifax); 2, Mrs E. Wilkinson (Halifax); 3, Mrs Parkes (Meresyde).

EDMONTON SECTION of the FANCY GUPPY ASSOCIATION held an open show at Edmonton Town at the beginning of September. Best in the show and challenge cup for breeders' pairs were won by Mr G. Goodall and Mr A. Park.

CRESWELL & D. A.S. held a very successful first annual open show,

receiving 351 entries, 17 Societies competed and 728 people visited the show. Judges were: Mr K. Colton, Mr A. Abdie (Sheffield), Mr A. M. Deakin (Workop), Mr A. Lindley Jackdale. The best fish in show award went to Mr Parks (Merseyside). Results were:

**Carp:** 1, Mr J. Sutton (Huddersfield); 2, Mr J. White (Huddersfield); 3, Mr A. Mearns (Workop). **Stetford:** 1, Mr and Mrs Dennis (Workop); 2, Mr D. Bennett (Workop); 3, Mr Adams (Chapeltown). **Mollies:** 1, Mr G. Rich (Stockport); 2, Mrs Wilde (Stretford). **Furys:** 1, Mr G. Rich (Stockport); 2, Mr D. Bennett (Workop); 3, Mr and Mrs Dennis (Workop). **Section winner:** Mr G. Rich. **Small characins:** 1, Mr F. Gregory (Oxam); 2 and 3, Mr and Mrs Dennis (Workop). **A.o.v. characins:** 1, Mr G. Silson (Workop); 2, Mr G. Green (Sheffield); 3, Mr Hunt (Chapeltown). **Section winner:** Mr G. Silson. **Dwarf cichlids:** 1, Mr J. Wrigley (Huddersfield); 2, Mr and Mrs Dennis (Workop); 3, Mrs Scrivenshaw (Notts). **A.o.v. cichlids:** 1, Mr F. Mulla (Merseyside); 2, Mr C. Mason (Mansfield); 3, Mr Hill (Mansfield). **Section winner:** Mr F. Mulla. **Fayer, chequer, cherry and nigger barb:** 1, Mrs Dennis (Workop); 2, Mrs Hunt (Chapeltown); 3, Mr F. Gregory (Oxam). **A.o.v. barb:** 1, Mr Parks (Merseyside); 2, Mr W. Parks (Huddersfield); 3, Mr Wiggins (Chapeltown). **Section winner:** Mr Parks. **Catfish and loaches:** 1, Mr Sides (Chapeltown); 2, Mr W. Parks (Huddersfield); 3, Mr Bullyment (Notts & D.). **Sharks and flying fish:** 1, Mrs Bullyment (Notts & D.); 2, Mr C. Mason (Mansfield); 3, Mr I. Bowers (Mansfield). **Section winner:** Mr Sides. **Siamese fighters:** 1, Mr A. Beasley (Heywood); 2, Mr D. Turner (Mansfield); 3, Mr P. Carroll (Huddersfield). **A.v. labyrinth:** 1, Mr and Mrs Dennis (Workop); 2, Mr L. Kaye (Huddersfield); 3, Mr M. Hunt (Chapeltown). **Danio, rhabras, minnows:** 1, Mr A. Beasley (Heywood); 2, A. and F. Stanfield (Creswell); 3, Mr J. Staines (Alfreton). **Egg-laying toothcarps:** 1, Mrs Bullyment (Notts & D.); 2, Mr and Mrs Dennis (Workop); 3, Mr A. Beasley (Heywood). **Section winner:** Mr A. Beasley. **Brooders egg-layers:** 1, Mr Hearnshaw (Chapeltown); 2, Mr A. Ashley (Creswell); 3, Mr Riley (Notts & D.). **Brooders livebearers:** 1, Mr J. Sutton (Huddersfield); 2, Mr Whistley (Derby); 3, Mr and Mrs Dennis (Workop). **Pain livebearers:** 1, Mr Wilde (Stretford); 2, Mr A. Mearns (Workop); 3, Mrs Wlaterscroft (Heywood). **Pain egg-layers:** 1, Mr W. Parks (Huddersfield); 2, Mr F. Gregory (Oxam); 3, Mr and Mrs Dennis (Workop). **Section winner:** Mr W. Parks. **A.o.v. tropical:** 1, Mr Hodley (Creswell); 2, Mr Wrigley (Chapeltown); 3, A. and F. Stanfield (Creswell). **Ladies a.v. tropical:** 1, Mr Kaye (Huddersfield); 2, Mrs Parks (Merseyside); 3, Linda Hooley (Creswell). **A.v. coldwater:** 1, 2 and 3, Mr Hill N (Nottingham).

**CALLING ALL NEW CLUBS!** The following progress report on the years' meetings sent to us by **MANSFIELD & D. A.S.** gives a really good idea of the many varied interests that an enthusiastic membership can take part in. Mr J. W. Bower, the secretary (7 Robin Hood Avenue, Warsop, Mansfield, Notts), writes: "The Society has had quite an active programme over the past 8 months beginning last January with the annual Dinner

and Dance, which was very well attended and at which the president of the Society presented the previous year's awards for the following items: Challenge shield trophy, Mr C. Hill; fish of the year, Mr J. W. Bower; home furnished aquaria, Mr R. V. Dyson.

'At the beginning of February, the A.G.M. was held when the new committee was elected. The March table show was for dwarf cichlids and a film on 'The Golden Eagle and Wildlife in Scotland' was shown by one of the old members of the society, filmed during his holiday. Later on in the month a lecture was given by Mr S. Pepper (of the Mansfield Water Board) on 'Water'. In April there was a Bring-and-Buy sale, also attended by members of other societies. On the 7th April the inter-society tournament between us and Notts. Tropical Fishkeepers was held at Nottingham. This turned out to be a very good social evening and a return bout at our own club room was held on the 16th May. This again was very much enjoyed by both societies, especially Mansfield, as they came out on top over the two shows.

'In June a talk was given by Mr A. Atkins on 'Fish Diseases' (and after this everybody went home to find all the diseases mentioned!). We must not forget, of course, the big day of the year for the Society—26th June—Mansfield's open show, when nearly 200 exhibits were on show. The society are very grateful to all people taking part to make this another enjoyable and interesting show. July incorporated a visit to a lake in the area to study 'Water-life' and collect live food. This is another venture that has been asked for again next year.

'August's main venture was a trip to Chester Zoo, which was thoroughly enjoyed by all. This included a visit to the working side of the aquarium, for which we send our warmest thanks to the staff concerned. Later on in August there was a social evening for families and friends.'

Mr Bower, on behalf of the club, extends a very warm welcome to anyone in the Mansfield district who would like to join in these activities and they are cordially invited to apply to him for details of membership. He ends his letter: 'Best of fishkeeping to all', which would certainly seem to apply to the membership of this society.

## In Brief

... **MID-HERTS A.S.** are nearing the end of their first year's existence with 55 paid-up members and six prospective ones. They have a many-paged monthly newsletter called **AQUASCOPE** and are starting their first serious attempt at showing fishes; members are gently reminded that 100 entries pay for the judge! Meetings are held on the first Friday and the third Tuesday of the month. Secretary: Mr T. Timms, 55 Beechwood Avenue, St. Albans, Herts.

... **NORTH OF SCOTLAND A.S.** announce a change of secretary. Mr D. Hay (13 New Park Road, Mastrick, Aberdeen) will serve as acting secretary until the A.G.M. in February. Also a change of meeting time—now on the second Tuesday in every month in the Aberdeen Zoo lecture room at 7.30 p.m. (instead of the first Tuesday as at present).

**PRESSURE** on space caused by recent reports of the main open shows has meant that some society news has unavoidably missed inclusion in this issue.

... **MERSEYSIDE A.S.** Newsletter is to get a new shape and a new name in 1967. The choice has been made out of 21 suggested names received from members and will only be known when it appears on the front cover next January. It is distributed to Europe, Australia and North America, and the editor, Mr Tom Wales Jnr., hopes to make contact soon with Scandinavia, Africa South America, and the Far East.

... The October monthly table show (a.o.v.) held by **BRADFORD & D. A.S.** was won by Mr P. Moorhouse with Master Healey second and Mr Moorhouse again third. The other class results were 1 and 3, Mr J. Brown; 2, Mr D. Kennedy. This was held at the end of a most enjoyable slide show provided by Mr B. Pengilly.

... The October meeting of the **DUNDEE A.S.** took the form of the half-yearly inter-club meeting, with 43 members from PERTH and from the Dundee club present. Dundee acquired 21 points and Perth 13 with the following results: Anabantids: 1, Mr A. Ovenstone (Perth, best fish in show); 2, Mr W. S. Russell (Dundee); 3, Mr G. Reid



(Dundee); 4, Mr J. Ireland (Perth).  
 Catfish: 1, Mr F. McNaughton  
 (Dundee); 2, Mr D. Annan (Dun-  
 dee); 3, Mr A. Overstone (Perth);  
 4, Mr R. McFarlane (Perth). Breeder's  
 egg-layers: 1, 2 and 3, Mr J.  
 Robin Baxter (Dundee).

... New secretary of the **BRITISH  
 KILLIFISH ASSOCIATION** is  
 Mr Cliff Hill, 120 Buckingham  
 Grove, Kingswinford, Staffs.

... AT the A.G.M. of **DIDCOT &  
 D. A.S.** the following officers were  
 elected: chairman, Mr Fred Hall;  
 treasurer, Mr Tony Dunsdon; show  
 secretary, Mr Alec Chadwick; commit-  
 tee, Joan Cartin, Geoff Downing,  
 Peter Tuckey, Arthur Wilkinson.  
 Secretary is Mr Norman Tucker,  
 120 Abingdon Terrace, Didcot,  
 Berks.

... **WIGAN & D. A.S.** have  
 recently moved to new premises at  
 the Whitesmith Arms, Standishgate.  
 Meetings in 1967 will be held on the  
 last Tuesday of each month. Further  
 information from the secretary, Mr  
 Ken Birch, 49 Meanes Avenue,  
 Wessley Mesnes, Wigan.

... **GOSPORT & D. A.S.** have  
 elected three new officials: chairman,  
 Mr L. W. Taylor; show secretary,  
 Mr K. Clough; F.B.A.S. delegate,  
 Mr Neylon. The club community  
 tank is sporting a new shoal of  
 glowlight tetras and a pair of  
*Neolabius unifasciatus* thanks to a  
 generous gift of fishes from Wingates  
 of Winchester.

... Fish enthusiasts of **BURY ST.  
 EDMUNDS!** Now is your chance  
 to help in the foundation of an  
 aquarist society. Contact Mr J.  
 Riley of Anglia Aquatics, 42a St.  
 Andrews St. North for more in-  
 formation.

... **HOUNSLOW & D. A.S.** Home  
 Furnished Aquaria competition has  
 been won by Mr A. Hastings (76  
 pts); 2, Mr K. Mason (75 pts);  
 3, Mr J. Thorne (74 pts). Junior  
 section: 1, Master Bunce (73 pts);  
 2, Master Ind and Master C. Walker  
 (70 pts); 3, Master Clive Walker  
 (69 pts).

... **UXBRIDGE & D. A.S.** are  
 pleased to announce that Mr Arthur  
 Boarder and Dr R. O. B. List have  
 been made honorary members of the  
 club. January next will see the  
 publication of the club's first maga-  
 zine, to be published quarterly.

#### The End of an Era

### W. G. Phillips

**O**BITUARIES are difficult things  
 to write, and when the person  
 concerned was also an old friend,  
 then the recording of his passing  
 becomes even harder. With the  
 death of W. G. Phillips on 12th  
 October, at the age of 84, the 'fishy'  
 world lost not only an active hobbyist  
 but an author, judge and fine  
 human being.

Very few aquarists can boast of  
 joining a club in 1899 but 'George',  
 as he was affectionately known, made  
 his first faltering steps towards  
 becoming a fishkeeper then at the  
 age of 17, at a time that saw Queen  
 Victoria receiving the news of the  
 outbreak of the Boer War! The club  
 was the Southsea Piscatorials and  
 from that modest beginning he soon  
 made himself and his efforts in  
 breeding fish known. His main work  
 came just before World War 2, when  
 he was in at the founding of the  
 first guppy specialist society in  
 Great Britain, the Guppy Breeder's  
 Society. He became their first  
 official judge and main supporter of  
 the 'five twenties' method of point-  
 ing, a system that he lived to see used  
 universally wherever fish shows  
 were held.

In 1960, he became the Founder  
 President of the Fancy Guppy  
 Association, and from his fertile pen  
 poured literally thousands of words  
 on guppy lore. Always ready to  
 defend our ideals, he became the  
 champion of the 'underdog'.

As the funeral cortege moved away



from his home in Regal Way,  
 Harrow, Middlesex, I noted with  
 pride that his passing was being  
 commemorated by the many notables  
 in the hobby who attended his  
 funeral. This home, that in the past  
 had been a veritable Mecca for  
 guppy breeders from all over the  
 world, resounded once more to the  
 topics beloved of aquarists when  
 they get together.

As my old friend and most  
 ardent critic, I feel his loss deeply  
 and, having been his biographer in  
 life, feel he would have approved of  
 your Editor's choice in allowing me  
 the privilege of writing these few  
 words.

Floral tributes and messages of  
 sympathy were received from many  
 aquarist clubs and to his widow,  
 Helena, we extend our deepest  
 sympathy.

His death leaves a gap that will  
 be very difficult to fill. As a final  
 tribute, the Fancy Guppy Associa-  
 tion have decided that W.G.P.  
 would be their first and last  
 President.

Truly the end of an era.

Jim Kelly

## Dates for your Diary

3rd December. **FEDERATION  
 OF BRITISH AQUATIC SOCIETY**  
 general meeting at Conway Hall,  
 Red Lion Square, London, W.C.1.

7th May 1967. **ASSOCIATION  
 OF YORKSHIRE AQUARIST  
 SOCIETIES** Open Show, Hull (de-  
 tails awaited).

27th May 1967. **READING &  
 D. A.S.** will be staging the 1967  
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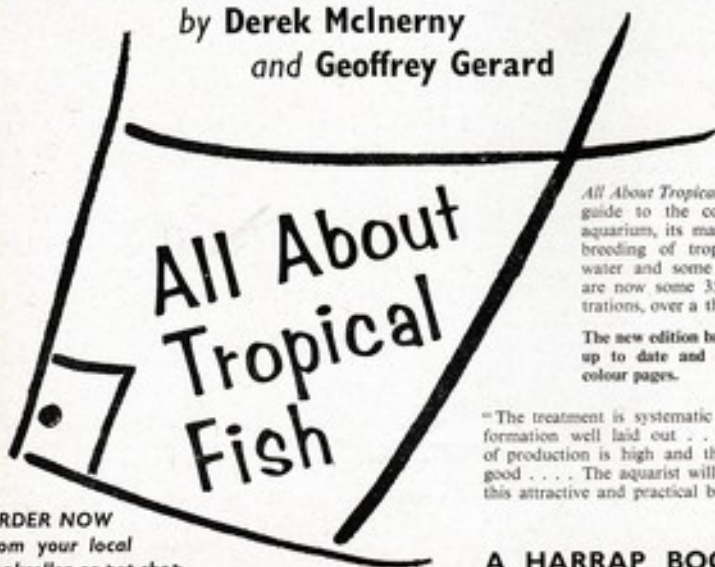
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