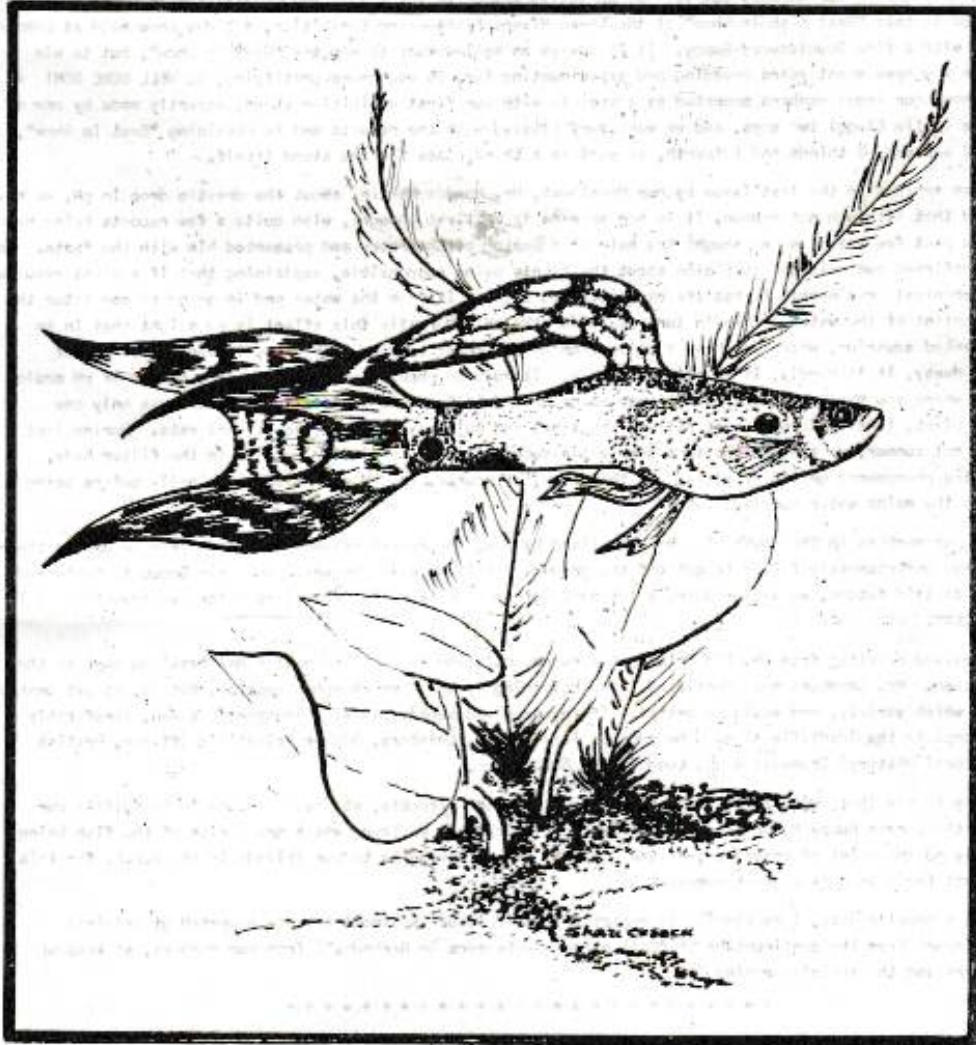


OCTOBER 1977
(P. 310/11)

N.G.L.S.



**JOURNAL OF
THE NEWCASTLE GUPPY
AND LIVEBEARER SOCIETY**

CHAIRMAN'S LETTER

by Doug Renton.

Since our last edition it has been my pleasant duty to congratulate two of our members. First of all Ken Low, who has been presented with the highest award it is possible to achieve from the F.B.A.S., that of a Yellow Badge for services to fishkeeping. Although our members in the South may not have heard of Ken, in the North-East of England he is known and respected throughout the hobby and personally, I count myself extremely privileged to have such a man as a friend and a member. Our second congratulations go to Ron Hill of Sunderland. Ron is not only one of our members but is also an active member of the F.G.A. and specialises in Guppies, so he was thrilled to take "Best Fish in Show" at the Three Rivers Fishkeeping Exhibition, a 3 day show held at Lambton Lion Park, with a fine Doubleword Guppy. It is always an achievement to win any "Best in Show", but to win with a fish you have spent years breeding and experimenting for, is even more gratifying, so WELL DONE RON! At the same show, our local members competed as a society with our first exhibition stand, expertly made by one of our members (Alfie Clegg) two sons, and we were very pleased with the results and in obtaining "Best in Show", 3 firsts, 2 seconds, 3 thirds and 1 fourth, as well as a third place for the stand itself.

Regarding an article in the last issue by our President, Mr. Gordon Martin, about the drastic drop in pH, we have since found that although not common, it is not as rare as we first thought, with quite a few reports being heard of over the past few years, so we sought the help of a Doctor of Chemistry and presented him with the facts. He, in fact, confirmed our original suspicion about the plants being responsible, explaining that if a plant requires a certain chemical or mineral, it has the capability to extract it from the water and in doing so can alter the chemical content of the water. This in turn can alter the pH. Normally this effect is so slight that in an average planted aquarium, where you have a collection of different species of plants, in various stages of growth and decay, it is hardly, if at all, noticeable. It must be emphasised that a drastic change of pH could only occur where you have extreme circumstances as described in Gordon's article, where there was only one variety of plant, (Indian Fern) almost filling the tank, and multiplying at an exceptional rate. During last years very hot summer, we also learnt that some water authorities had a similar problem in the filter beds, caused by the phenomenal growth of algae. In this case, of course, the pH was raised chemically before being pumped into the mains water supply.

As most of our members in the South will have realised by now, the recent attempts to start Area Groups in their locality have unfortunately failed to get off the ground. While we will encourage any Area Group to be formed, I'm afraid that in future, we will require a lot more information from the organisers before we advertise it in our newsletter.

We have received a letter from Mr. Tim Driver of Norwich, relating to the 'Indonesian Halfbeak' he sent to the British Museum. Mr. Chambers has identified it as belonging to the *Normorhamphus* species, but is, as yet unable to confirm which variety, and would be grateful if anyone could supply him with another specimen, (preferably live) to complete the identification. The address is:- Mr. J. Chambers, Higher Scientific Officer, British Museum (Natural History) Cromwell Road, London, SW7 5BD.

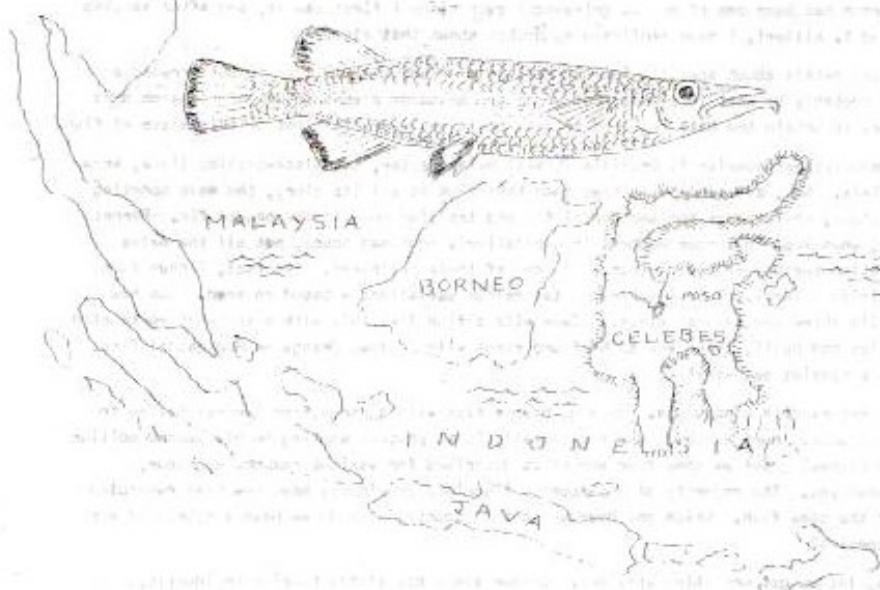
We are sorry to say that owing to the industrial dispute at the airports, we have been unable to fulfill our promise to the German Guppy Federation, of entries for their Show, as there was a great risk of the fish being delayed, beyond the point of endurance, at the Airport, and we apologise to our friends in the D.G.F. for this and hope that their show is a great success.

Finally, on a happier note, I am pleased to report that this issue is almost totally composed of original material, (apart from the continuation of "Collecting Livebearers in Barbados") from our members, so keep up the good work and the articles coming in!

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NORMORHAMPHUS CELEBENSIS



The following information is taken from "Fishes of the Indo-Australian Archipelago" by Weber and De Beaufort, sent to us by the British Museum of Natural History.

Description of Genus.

Elongate, compressed. Mandible slightly projecting beyond the upper jaw, provided at its tip with a fleshy prolongation, which is curved backwards, at least in preserved specimens. Intermaxillaries forming a triangular plate, which has a band of fine teeth, similar to those of the lower jaw. Origin of dorsal far backwards, behind that of anal and shorter than last named fin. Pectorals inserted high, not as long as head. Ventrals nearer to caudal than to the head. Caudal fin rounded. Scales moderate, rather deciduous. Lateral line indistinct, running low down. Gill openings wide. Gillrakers present, few in number, knoblike and provided with minute spicules, which are also present on the free border of a membrane, situated on the branchial arch (at least on the first), at the inner side of the gillrakers. Viviparous. Distribution: Fresh water of Celebes.

Normorhamphus celebensis.

Fin ray & scale count:— D. 11-12; A. 15; P. 1.11; V. 1.5; L. 1. 50-55.

Description.

Rather compressed, the breadth of the body going about 1.75 in its height. Height 5 and 6 in length with caudal. Head 3-3.3, 3.5-4 in length with caudal. Eye 3.5-5.5 in head, 1.75 in flat interorbital space. Triangular part of upper jaw as long as broad. Teeth pointed, somewhat curved backwards, especially those at the symphysis of the upper jaw. Band of teeth in the upper jaw broader than that of the lower jaw. Origin of dorsal above 8th anal ray. Dorsal rounded, shorter than the anal, which is subtruncate. Pectorals about equal to head without snout, ventrals longer than half length of pectorals, their base midway between caudal and middle or hind border of eye. Caudal rounded. Pectorals and ventrals tipped with black. Dorsal with black blotch at the base of its hind border and some dark patches along the front border. Anterior and posterior border of anal blackish as well as upper, lower and hind border of caudal, which last fin has, moreover, indications of crossbands. Length = 84 mm (3 1/2").

Habitat = Celebes. (Lake Posso!, Rivulet at Lappa Manrül).

Normorhamphus hageni.

Fin ray & scale count:— D. 12-13; A. 15; L. 1. 64. L. tr. 24.

Description.

Similar body shape etc. to *N. celebes*. Length 94 mm. (3 1/2") of known preserved species.

Habitat = Celebes, (South-east). Ponango and Rumbia valley.

Very limited information available as yet.

Editor's note = awaiting translation of German material for further information.

Our chairman has raised the question, in the past, of the correct identity of some of the fish we have. I would like to take up this theme and elaborate somewhat. I agree with Doug that we must put a large question mark over such fish as we call *Gambusia pumilio* and *Xiphophorus milleri*. All my friends will know that the I.D. of the former has been one of my pet grievances ever since I first saw it, and after keeping and rearing the so called *X. milleri*, I have confirmed my doubts about that also.

Before we go into any detail about specific identifications of fish, I would like to put forward a few comments which will probably be shot to pieces, but which are based on a vast amount of research done over the last three years to obtain the data required to make positive identifications of this class of fish.

One of the most commonly kept species is *Poecilia (Limia) melanogaster*, the Black-bellied limia, known to us all as the Blue Limia. Now, all of us will have seen this fish in all its glory, the male sporting its deep blue spangled sides, sooty-black hue and dorsal fin and trailing edge to the caudal fin. Perhaps you have also seen that, when kept in larger numbers in a relatively confined space, not all the males show the deepest colouration because of the dominance of some of their brethren. (In fact, I have found this true of all four *Limias* I keep). This illustrates two colour variations - based on mood. But how many knew that in the wild there are several others. Even with a fish like this with a somewhat restricted range based around Jamaica and Haiti, there are to be found races with Yellow, Orange or Red caudal fins. Just one example of how a species can vary!

Now let us look at *Heterandria bimaculata*. Here we have a fish with a range from Central Mexico to Guatemala at varying altitudes. Kurt Jacobs, (who incidentally is at present working on his second edition of *Livebearing Aquarium Fishes*) gives us some four varieties described for various reasons - colour, finnage, shape - what have you. The majority of sub-species described previously have now been overruled as being local races of the same fish. Which one have we in this country? Or do we have a hybrid of more than one race and sub-species?

With the *Gambusias*, let us get one thing straight. Colour alone has little bearing on identity. The fact that the puberty spot (popularly known as the gravid spot) is a different colour or shape is no indication of a species and has never been used as a diagnostic factor. The size and colour of this area of the body does, of course, vary from fish to fish, race to race and even within the single fish according to its cycle.

Gambusia affinis affinis and *Gambusia affinis holbrooki* have a vast range over the whole of the Southern States of America and even overlap in places. Their form varies considerably, especially in the amount of melanistic spotting or speckling. We must remember also that both these species have been widely used throughout the world for mosquito control and that specimens imported with batches of Guppies etc: are probably fish introduced into the rearing ponds by mistake, probably in the Eastern countries, and may represent only hybrids developed from those fish used for mosquito control. Again another reason why they may differ slightly in form or colour from the true species.

Above all, when trying to arrive at an I.D., let's take as complete a look at the fish we have, as we can. Consider all aspects and keep an open mind until ALL possibilities have been investigated and proven or disproven. There is a tendency in some quarters to conceal details of origin or hypothesise on some points, but this CANNOT be acceptable if we are to reach the right conclusions.

You will probably by now have got my point. Are we, in fact, keeping and rearing true species, or are we raising, without realising it, our own man-made ideal specimens with the idea of producing the best show fish. Why change nature? Could we not now organise ourselves in a similar way to the British Killifish Association, satisfying ourselves as to the origin of our fish, separating races, sub-species, varieties etc: and organising ourselves better for correct identification.

When a member imports a new fish and sets about identifying it could we not have a complete account published in our Journal for the information of all members, showing details of origin, reasons for identifying as that particular species etc: There is nothing in this which would break "a confidence" I am sure because there is no need to detail who imported and distributed them. By origin, I mean where they were collected.

I know there is a lot of work involved but not nearly so much as with the B.K.A. and the B.C.A., with the thousands of species they have to cover. We only have to think about some 40 Goodeids, 180 Poeciliids and a handful of odds and ends like the Hemirhamphidae.

Occasionally I have been pleasantly surprised on a visit to one of my local aquarium shops to find an unusual livebearer. Such was the case last November when I discovered a tank of "Two Spot Livebearers". At least that was what the shopkeeper told me they were. Being a disciple of 'Jacobs' I looked them up in his "Bible" only to be confused for his Two Spot was *prochilichthys parva* and nothing like the fish I had bought. I had been told in the shop they were "*Heterandria bimaculata*" which eventually proved false enough for me to identify them as *Heterandria bimaculata*. Only having a couple of tanks I had put the fish in the community tank and was a little dismayed to find that Jacobs described them as "often aggressive fish, which are not suitable for the community tank".

Still, they were only 3 cms (1 1/2") long and there were plenty of larger fish in the tank so I thought everything might be all right. It wasn't too bad as it turned out, they did try nipping a few fins and the odd Guppy or two in the tank had to be found a new home pretty swiftly. However once they had been firmly put in their place in the 'pecking order' by the hard-bred Sailfin Molly, who was the "rock" of the tank, there was very little trouble.

They began to grow and I soon found out I had a pair of very beautiful fish.

They are rather slender and longer than the commoner livebearers and the basic body colour is a delicate purple which can change from mood to mood from rather-of-pearl to dark mauve. The scales have dark edges giving the fish a "honeycombed" appearance for each scale is six sided. The body colour pales and the scale edging disappears towards the belly, giving way to pale blue and then white. The eyes are dark blue-green and there are patches of iridescent green around the gill covers and the head and a dusting of this colour along the back. There is a large dark spot on the base of the tail and another smaller one just behind the gill cover. It is these spots which have given the fish its 'popular' name, although on some males the spot behind the gill cover is missing altogether.

The dorsal fin of both male and female is bright yellow with two, black zig-zag lines, joined in the male to make a row of 'honeycombs' matching the scales. It is quite a long, lowish fin and the first few rays on both sexes protrude beyond the membrane slightly. There is a faint green stripe on the lower half of the tail which is otherwise translucent white. The anal and ventral fins are pale greenishwhite but the pectoral fins are colourless.

The male's gonopodium is quite long, reaching beyond half way to the tail and ending in a definite hook, which can get caught in the mesh of nets if you are not careful. He is very much slimmer than the female.

The female especially has a habit of lurking near the surface waiting for food while the male spends much more time swimming generally around the tank.

Courtship is rather a one-sided affair with the female taking a rather off-hand attitude, until she spots her male. The male stations himself behind and below her (presumably out of sight) and then, often quivering all over, makes a sudden dart, thrusting his gonopodium for her vent. He must be successful sometimes for I have had several broods from her, but more often than not she senses his presence at the last moment and turns on him, chasing off round the tank before resuming her station at the surface.

Although the species is very prolific with broods of over 100 not being uncommon, the female is especially cannibalistic towards her own offspring. I succeeded in saving just 13 out of the first brood, but then made the mistake of returning the youngsters to the same tank as the parents when they were about six weeks old and an inch long. Too big, I thought, to be eaten. But not so, she promptly devoured six of them before I realised what was happening.

I now have the breeding tank covered with a mat of Riccia and bladderwort to a depth of about 1 - 1 1/2" apart from a circle where the bubbles rise from an airstone. The young immediately make for the surface and lose themselves in the dense vegetation. Bunches of fine leaved plants anchored in the gravel are little or no use as the fry only venture down from the surface an inch or two after they are about 3 weeks old. By using dense floating plants I have managed to save 60 - 80% of each brood, as one of the other problems with this fish is that she nearly always seems to deliver during the early hours of the morning, so the fry need plenty of cover to hide before they can be rescued by removing the mother.

Tail spots on the fry appear within a few hours of birth, (sometimes they are born with the spot) and they begin to take on their full colouring at about two to three weeks old, when they should be about 1 1/2" long. They grow rapidly on a diet of fine dried food, (I use crushed 'Aquarion' growth) sifted debris, chopped tubifex or white worm and micro worm.

Maturity is reached in 5 to 6 months when the female has attained a size of 9 cms (3 1/2") and the male about 4 cms (1 1/2"). This big discrepancy in size is quite normal and the males usually attain a size of about 3 cms (1 1/2") by about 3 months, taking another couple of months to grow their final quarter inch. The female's growth is quite regular however.

Of all the A.O.V. Livebearers my wife and I keep, these are our favourites- probably because we had to do so much with them from scratch and this has brought its own rewards. In fact all our work really seemed worthwhile a few weeks ago when the male took 1st. place for A.O.V. Livebearer at an Open Show and his mate took 2nd.

But this is not the end of the story. We have noticed that on some of the fish the green patches are larger and brighter than on others and we are now trying our hand at a bit of selective breeding to see whether, eventually, we can end up with an emerald form of the fish.

Whether we succeed or not, only time will tell, but whatever happens, our Two-Spots will always have a special place in our aquariums.

COLLECTING LIVEBEARERS IN BARBADOS

by Joseph Moreno, A.L.A.
re-printed from "Livebearers"

My first throw of bait brought mollies and guppies to the surface. With all enthusiasm I lowered my meshed cloth seine into the pool. My spirits were soon dampened by the fact that the fish were not quite as co-operative in allowing themselves to be caught as most aquarium books would make us believe. Many frustrating attempts of running the netting through the pool would only scare the fish into inaccessible corners. Equally fruitless were the endless swipes of the net in the shallow water on the edge. Guppies could be seen quite clearly, but they were incredibly agile at evading all my endeavours. Having failed to collect a single fish, I returned the next day with somewhat more sophisticated equipment.

In a local fisherman's supply store I bought a long handled (6 ft.) landing net with a circular scoop net of about 18" in diameter. As the weave was much too coarse to retain Guppies, I bought some mosquito netting and sewed it inside the net as a second lining on the original netting. My strategy the next day would be to slide the net in, (weighted on the bottom with a stone) under the surface. Then I would throw the bait on the surface. When the fish rose to the bait I would slowly move the net along the bottom at the area directly beneath them. As the net was long handled, I could do this without being so close to the pool that I would scare the fish away. Then, at the right moment, I would pull up the net, and hopefully collect the fish on the surface. This method worked fairly well, although it had its problems. Fish that stayed near the edge of the pool were impossible to collect, and the Guppies tended to stay near the edge, rather than the more central areas. Also the wind would often blow the bait into unmanageable areas. The method was workable, if not very efficient.

The predominant fish was POECILIA LATIPINNA and they were relatively easy to collect by this method. The Guppies were much more elusive, and I would only catch one very occasionally. I collected several Mollies and threw back a great many of them, and only collected 4 pairs of Guppies after many hours work. The females were large and robust, and have shown unusual white and iridescent markings on the anal fins when eventually placed into the aquarium. The males from this environment were not spectacular, but were all very similar in colour and markings, even though they were caught at different times. I found it quite fascinating that that particular overflow pool had apparently evolved its own strain of Guppies. The males were marked mainly with reddish-orange markings, and all four had a black spot at the base of the tail fin. I have many young from these fish and am curious to see if the young will be at all similar to the original males, or what other genetic surprises will be forthcoming from that little overflow pool.

To be continued.....

QUIZ ANSWERS.

- | | |
|---------------------------|--------------------------|
| 1) Cape Fear Spotteddock, | 3) Cuba. |
| 2) White Spot. | 4) Egg-laying Toadpoops. |
| 5) Jenynsia lineata. | |

NOTICE OF ANNUAL GENERAL MEETING.

THE A.G.M. WILL BE HELD ON THURSDAY, DECEMBER 15th, AT 8 - 00 PM, IN THE ROYAL BRITISH LEGION CLUB, CHILLINGHAM ROAD, NEWCASTLE UPON TYNE. ALL MEMBERS WELCOME. ANY PROPOSALS FROM MEMBERS SHOULD BE RECEIVED BY THE SECRETARY, (MRS. RENTON) BEFORE DECEMBER 1ST.

GUPPIES GALORE

by Ron Hill, N.G.L.S.

This month I would like to mention the water and temperature I use; also the best way I feed my fish. As always this is MY WAY.

WATER

Although a good many aquarists never have trouble using fresh water, I'm afraid I did; therefore I age my water by storing it in plastic sweet jars stored in the fish room. Every day one gallon of water is siphoned from each tank, (two gallons from breeding tanks) which are then topped up with aged water. I use a level tablespoon full of cooking salt per gallon, I think that this stops a lot of possible illnesses. While talking of water, I'll mention the temperature used, for adults 74-76 F. I keep this temperature by using a fan heater in the fish room which is thermostatically controlled. Breeding tanks are kept at BGF. These tanks have separate heaters. I'm certain that for the first two months the fry grow quicker if kept at this temperature, but although heat speeds up growth it also cuts down the fishes' life span; this is the reason my adult tanks are kept at a much lower temperature. If I need to get some size on youngsters for use as a breeding team I keep them at the higher temperature for a much longer length of time. Some of you might be thinking that keeping a fish room warm with a fan heater is expensive, well I suppose it is, but I feel that the convenience of it outweighs the expense. I can add tanks anytime I wish, it's far safer and if the room is insulated well, it's not too bad. If you only have 2 or 3 tanks stick to your separate heaters.

FEEDING

With adults I'm not worried about what I feed them, white worms are used quite a lot, also various flaked foods, however my basic diet is cat food pellets ground down to a powder and mixed with Borax. I find that my adults take this readily and the price is right. In the female tanks I usually hang a piece of liver but I always take it out before I turn the lights out. Peas and other various green foods are fed 2 or 3 times a week. Just lately, after seeing the way one of our members feeds his platies, and their condition, I've joined him in feeding rabbit pellets and pond pellets to my fish. I've been using them since June and I've no cause to regret it. Thanks Alf. Just one more thing before I leave feeding. Nearly every book I've read warns about overfeeding, just as many say large tanks are required so that fish can grow properly. I've come to the conclusion that Guppies seem to grow better in smaller tanks, as long as they are not overcrowded, and I've been asked the reason why. I believe that in large tanks the fish are underfed, but in small tanks the fish are more likely to be well fed. I feel this is a lot better than being starved and if some of the water is changed every day, no harm will come to the fish. If I visit someone's fish house and the breeding tanks are spotless I feel the fish are underfed. My breeding tanks are never spotless but I never worry about this, although some fanciers like their tanks to be sparkling. I would rather have my young fish eating all day long. But remember, I do change some of the water every day, and I'm talking about bare tanks which are filtered. I do not recommend overfeeding if gravel is used.

YOUNGSTERS

I've come to the conclusion that at BGF they will eat nearly all day, and really put on size, as for what foods they require, I believe in most foods, live or frozen. I do use one flake food and one granular type food, both chosen for the type of vitamins they contain. I also use green food three or four times a week. The live foods given are: micro cels, micro worms, and small white worms. Most frozen foods are used. I believe that the first six weeks either makes or breaks your Guppies, and I feel the 2 main items in this time is the feeding and the water changes. I believe that there's only one thing better than micro worms, and that is LIVE brine shrimp, but they are expensive and I find them difficult to cultivate. I think that micro worms are better than frozen brine shrimp although I do use it. For the first 3 weeks I think it's essential that some live food is used otherwise I feel that growth is retarded.

I was asked at a club meeting how many adult male Guppies I had. The answer, taking an adult to be over 9 months old, was 16. Going back through my records, to get these 16, I had bred over one thousand Guppies. These males are kept in 4 tanks, how many tanks would I have needed for the original thousand? The message is clear - CULL, CULL, CULL.

Best tip heard this year - Instead of painting the bottom of show jars and tanks black, use black CON-TACT and stick straight on to the bottom.

GUPPIES GALORE (cont)

Brief description of Ichthyophonus Disease.

It's almost impossible to diagnose this disease in living fish, because unless the parasites gain access to the brain, and cause the well known tumbling movements, the other symptoms could fit numerous other diseases. Some fish swim sluggishly while their bellies may grow thin, next sign could be the loss of balance and then death without showing outward signs of disease. Sometimes the belly may appear swollen, the fins sometimes get torn and the ends appear whitish. When any of these symptoms appear it's usually too late to save them, the use of Phenoxetol may save the rest of the fish in the tank. In female fish, Ichthyophonus causes sterility if it attacks the ovaries. In female guppies, sex reversal has been observed, the infection of the ovaries resulted in the death of the ova and embryos, the remaining degenerated organs changed into male function, while the fish took the shape and colour of a male, although keeping the size of the female. This can be explained by stating that every animal produces male and female hormones, more of one than the other. If the main hormone is disturbed or stopped, the other takes over. The most striking thing which can be caused by Ichthyophonus infections of the ovaries in Livebearing Toothcarps, is the development of ova into embryos without fertilisation. It has been observed in Guppies, Swordtails and Mosquito Fish. All the young would be females with only half the normal number of chromosomes, because of the lack of the male contribution.

TRUE STORY

I sent the wife out shopping for 3 items, which were:- Dried Yeast, Soluable Vitamin B12 and Yellow Corn Meal. The following happened.

FIRST SHOP. The wife asked for Dried Yeast. The shopkeeper asked whether it was for making beer, wine or bread. When she said for tropical fish he nearly fainted, and then he said, "What are you trying to do, get them drunk? Ha, Ha, Ha." The wife replied, "No, we get the fish to swallow it and he doubles his size in next to no time".

NEXT SHOP. She asked for water soluble vitamin B12, the assistant said, "We only have them in capsule form" the wife said, "I don't think they will do" The assistant said "So you have difficulty in taking capsules?" to which the wife replied, "Oh they are not for me, they are for the fish". The assistant just had to ask what the vitamins did for the fish. The wife said, "It stops their heads dropping off" to which the assistant replied, (trying to look intelligent) "I know it's good for the fish, but I had no idea it did that".

LAST SHOP. The wife was now getting fed up because of the remarks from shopkeepers etc, but she decided to try and get me the last item I wanted, which was the Yellow Corn Meal. The shopkeeper said, "What do you need it for?" THE WIFE WALKED OUT OF THE SHOP.

SYLVIA'S ITCH

RON'S COMMUNITY TANK NEEDS A CLEAN,
BECAUSE OF THE SNAILS THAT COULD BE SEEN,
BEFORE HE SET ABOUT THE SLAUGHTER,
HE SLEEKED HELP FROM HIS DAUGHTER.

THAT NIGHT, SYLVIA, WHO IS RON'S WIFE,
WAS WATCHING TELE, "THIS IS YOUR LIFE",
ALL OF A SUDDEN UP SHE FLEW,
IN THE DARKNESS TO THE LOO.

AN HOUR LATER SYLVIA BEGAN TO SCRATCH,
RON WONDERED WHAT SHE WAS TRYING TO CATCH,
ALL OF A SUDDEN HER TIGHTS CAME DOWN,
AND ON HER FACE WAS A GREAT BIG FROWN.

FROM HER TIGHTS THEY BEGAN TO CREEP,
AN ARMY OF SNAILS WHICH WERE NOT ASLEEP,
SYLVIA HAD MARKS UPON HER TUM,
SHE HAD LOTS MORE UPON HER BUM.

NEXT TIME TO KEEP MY SYLVIA SAME,
I'LL EMPTY THE PAILS DOWN THE DRAIN,
WE CAN'T RELY UPON OUR DAUGHTER,
TO GET RID OF SNAILS AND WATER.

AMECA SPLENDENS.

The following information was condensed from an article published in "Copeia" in 1971.

The Goodeidae, a family of viviparous cyprinodontoid fishes, is restricted to and probably originated in Mexico. It is a small group (perhaps 35 - 40 species) of rather limited range that has flourished through adaptive radiation in a region characterized by the lack of primary freshwater fishes. Its center of abundance lies in the Rio Lerma basin of the cool, tropical highlands of Western Mexico, where the only other cyprinodontoid, *Poeciliopsis infans*, a poeciliid. The Lerma fish fauna is dominated by the Goodeids and by a parallel radiation of the freshwater atherinid genus *Chirostoma*.

Viviparity is evident in Goodeids from:-

- 1) The distinctive shortening and crowding of the anterior anal fin rays of the male.
- 2) The slight separation of these rays from the rest of the fin.
- 3) The development, in all but one species, of trophotaeniae.
- 4) Transitory rectal processes of the embryo and newborn fish that are associated with nutrition and respiration.
- 5) The presence of an organ presumed to be functional in copulation.

These features, and probably the rudimentary anteriormost anal ray, and the differential fusion of basal segments in anal rays, distinguish Goodeids from all other livebearers in the suborder Cyprinodontoidae.

Most members of the family Goodeidae inhabit the highlands of the Mesa Central, or live in disrupted segments of this plateau, at elevations between about 915 and 2130 metres. Goodeids occupy a variety of habitats: warm springs, large and small lakes, (warm or cold) that may be clear to turbid, swiftly flowing to sluggish streams, alkaline ponds, marshes, roadside ditches, and canals. Most probably do not regularly inhabit depths greater than about half a metre and prefer quiet or slowly moving water. The species vary in length from about 25 - 200 mm., but most are not much over 75 - 100 mm. long.

A variety of trophic adaptations has produced a diversity of nutritional types, including filter feeders (Goodea), silt and ooze feeders, (Ilyodon) carnivores (Allophorus) and omnivores (Xanotoca).

AMECA SPLENDENS.

Diagnosis - A large Goodeid, (to 90 mm) with bifid outer jaw tooth at all ages (inner teeth bifid except in newborn), a broad, yellow, terminal band on the caudal fin of the male, 13 or 14 dorsal and 15 or 16 anal rays, 37 - 39 lateral scales, 35 - 38 vertebrae and 2 - 4 ribbon-like trophotaeniae that are attached to the overlying septum.

Description - Most of the important specific characters of this species are given in the generic diagnosis. The jaw teeth of the evenly curved outer row are uniformly and strongly bifid, little compressed, curved backward, and number about 23 - 28 in the upper jaw and 21 - 26 in the lower jaw of the adults. They are firmly attached to the strong jaws. The inner teeth are small, bifid at their tips (except in newborn, in which some or many are peg-shaped or weakly conic), and arranged in a rather broad, irregular, curved band.

Dimorphism and colouration - Sexual dimorphism is marked, especially in fin size (all fins larger in the male), body depth (deeper in large males), distance between anal-fin origin and caudal-fin base (greater in the male) and in the length of the caudal peduncle (longer in the male). The life colours of mature adults also readily distinguish the sexes. In the male the outer third of the caudal fin is brilliant yellow-orange to deep orange, followed medially by a curving broad, black bar about equal to diameter of pupil, with the basal part of the fin milky-white. The distal fourth of the anal fin is also yellow-orange to orange as are the pectoral and pelvic fins. The dorsal fin is mostly dusky, but has a narrow to moderate yellow to orange margin. The sides show metallic bluish to turquoise reflections from the scales, and the head (except top) and abdomen are golden yellow. The back is olivaceous brown. Females are greenish-yellow over the caudal peduncle and entire venter and show pale bluish reflections from the scales over the sides; their fins are pale watery, with no bright colours. In large males a midlateral concentration of pigment appears as a prominent dark band which extends posteriorly from the upper edge of the opercle to the base of the caudal fin: in small males this band is less distinct anteriorly where it is often broken up into a series of irregular, poorly defined spots. The body and median fins of females are conspicuously spotted. Spots on large females are arranged in 7 - 11 fairly distinct rows on the side of the body and in one or more bands on the membranes of the median fins, but such a pattern is not always apparent in small females. There are 8 - 16 large blotches on the side of the caudal peduncle in females of all ages and also in small males; certain of these spots have doubtless persisted since birth. We readily distinguish the young of *Amea splendens* from those of 15 other Goodeid species by the pattern of spotting - a large spot at the base of the caudal and the conspicuous row of from 2 - 7, (usually 4 or 5) spots below the midside of the caudal peduncle forward to above the pelvic fins are characteristic for newborn young of this species.

To be continued.....

Quintana strizone.

The following comments about this species were received from Rob Purdy, in response to the request for information in the last edition.

The fish were discovered in an almost empty tank in a wholesalers, and taken as Guppy fry. This happened about last June - July in the London area.

The aquarist who found them, raised them, bred them and passed them on to 3 other people, including myself.

So far, they appear to be Quintana strizone, but, (knowing that there are more species than those that appear in Jacobs), I cannot be at all certain.

I would suggest that a code system similar to that used in the scientific world be used, until "unknown" livebearers can be accurately identified. For this species I suggest U.L.B.1 (Unknown Livebearer 1)

It seems fairly certain that these are in fact Q. strizone, but the code can be used until we are certain.

So far, identification is based on general appearance and fin count. I will let you know any further developments.

The fish are very docile and easy to reproduce, but the fry and sometimes the adults can be very touchy about water conditions. Fry are NOT very easy to raise.

Both sexes grow larger than F.B.L.S. standards for Q. strizone, but because of the way the sizes were derived, this is only to be expected.

The vertical bars only appear on rare occasions and the edging colours on the dorsal have yet to be seen. Fry are minute when born, easily the smallest livebearer fry that I have seen to date.

Editors note: I have at present a pair of U.L.B.1 and the female has very kindly presented me with 7 fry, which are indeed, very tiny when born. (5-6 mm) These were produced in a small community tank and had to be transferred to an empty breeding tank, pretty quickly to prevent them being disposed of by the other inmates in the tank, so there was no time to check water conditions etc. In the new tank. Fortunately the fry have been quite happy in the different water and have grown really quickly. The only concession given to them, because of their smallness, was one feeding per day of newly hatched brine shrimp. (Normally I do not but Brine Shrimp Eggs as it is impossible to purchase any that give more than a 10% hatch, in fact one dealer has stopped selling them, as he has had so many complaints about poor hatchings) Apart from this, the only other food given was very finely ground flake food, (a mixture of all the tins we keep collecting at fish shows, that is put into my kitchen grinder) and I'm pleased to say that at 6 weeks old, the males are as big as their father, (they started sexing out at 3 weeks) and the females are catching up with Mum fast. I also have noticed that the male doesn't display the barring all the time, it is most intense when he is pursuing the female, whilst she displays them mostly during the week before she produces the young and for a couple of days after this, no bars are visible at all. The parents are still in the 2 ft. community tank, which by the way is very heavily planted, and only once have I seen a slight hint of edging colours on the dorsal. All in all, they are a pleasant little fish, which remind me greatly, both in shape and general habits, of *Heterandria formosa*.

LETTERS AND QUERIES

I was interested to read Mr. Martin's article about *Poecilia vittata* with 'shinrotes'. I too had this trouble about 12 months ago. I had just built up my stock and had about 80 fish in 2 large tanks, both of which contained large amounts of Indian Fern (the only plant I keep). All the fish were healthy and showed no sign of disease. They began to die, every day on returning from work, 4 or 5 would be dead on the tank bottom, (both tanks) This went on for a week. I had filters of water from both tanks checked by an N.C.F. chemist. (pH 7.4 & 6.9) In the end, I was left with 1 female, from which all my present stock is derived. I too, am at a loss as to what caused the deaths, as my tanks contained Swords, Plantas, Guppies and Mallows, all of which took no harm.

John Waterson,
Bixbydon, Tyne & Wear.

Could you please tell me the F.B.L.S. sizes for *Gambusia pumilio* and *Xiphophorus milleri*? Also, is there an N.G.L.S. Isopod bridge, how much do they cost and how can I obtain one?

Anthony Smith,
Folkestone, Kent.

The F.B.A.S. sizes for Gam. panuco are - Males 1", Females 1½". and for Xiph. milleri - Males 1½", Females 1¾". We have just ordered a new supply of insect badges and we hope to have them within a month or so. Unfortunately, the cost of these badges has gone up, (however, I would like to point out that these will be the original, round badge, with the narrowest lip supply centre, not the smaller ones that we had last year) and will probably cost approx. 60 p. They can be obtained from our Treasurer, Mr. R. Kerr, 37, Mundella Terrace, Heaton, Newcastle upon Tyne. (Please enclose a stamped, addressed envelope)

EXCHANGE COLUMN.

First, a plea for help from one of our newer members in Scotland. He writes - "I am interested in breeding livebearers, but find that I cannot purchase any decent stock in my area, especially in the A.O.V. varieties, so I was wondering if any of the other members could help me with any of the listed species so that I can build up some stock and eventually participate in the exchange column."

Poecilia reticulata, (Dundasword & Pintail) *Poecilia ananias*, *P. sphenops*, *P. voltaria*, *P. eudofasciata*, *P. melanogaster*, *P. vittata*, *Gambusia affinis affinis*, *Gm. affinis holbrooki*, *Girardinus metallicus*, *Chr. falcatulus*, *Het. farmana*, *Phellicthys watesi*, *Phellicorax eudimaculatus reticulatus*, *Xiph. helleri*, *Xiph. arcuatus*, *Xiph. variatus*.

Mr. John R. Steven, (mem. no. 76)
95, Brechin Road,
ARRROATH,
Scotland.

Mrs. R. Giffon,
12, Birchfield Drive,
LONGRIDGE,
Preston,
Lancs. PR3 3HP

Offers - Sixes of *Het. bimaculata* fry. (at least 2 weeks old)
Sixes of *Poec. vittata* fry. (at least 4 weeks old)
Wants - Pairs or fry of *Poec. eudofasciata*, *P. nigrofasciata*,
P. ornata, *P. versicolour*, *Xiph. montezumae*,
X. pygmaeus, *X. siphidium*.

Mr. P. Walsh,
54, Grimshaw Street,
St. Harwood,
Nr. BLACKBURN,
Lancs.

Offers - *Xenotoca eisoni*, *Het. farmana*, *Poec. nigrofasciata*,
Braconyphaxis rhabdophora.
Wants - *Priapella intermedia*, *Aneca splendens*, *Limnurgus innotatus*,
Poec. versicolour, *Xiph. siphidium*.

Mr. D. Kenwood,
90, Siede Road,
PORTLANDHEAD,
Nr. Bristol

Offers - Most species available in this country.
Wants - *Girardinus falcatulus*, *Xenoporphus captivus*, *Quintana*
arizonae, *Limnurgus innotatus*.

Mrs. J. Benton,
"Halfbreak House",
146, Chillingham Road,
HEATON,
Newcastle upon Tyne, NE6 5BU.

Offers - small number of *Poec. versicolour*.
Wants - *Poec. nigrofasciata*, *Priapella intermedia*.

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