

THE RAINBOW TIMES

Volume 10/Number 1

The Rainbowfish Study Group, Inc.

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Reprinting is available for not-for-profit organizations only. When reprinting articles please mail 2 copies to the Editor. Please include the address of the Editor in any reprints. This will insure that further reprinting will also be forwarded to us. Thanks.

Send address changes to me!

Each of you should receive a membership list of names, addresses & telephone numbers as a loose insert with this issue. Contact me if this is missing. I would like to provide an e-mail directory with the next issue. For those with an internet address that would like to be included, please contact me at DLHOSMER@aol.com. Only those responding will be included.

Also find enclosed a Species Check-off Sheet as a loose insert. This should be used by individuals who would like to become part of the greater effort of rainbowfish species maintenance here in North America. Those who have submitted a form in the past should consider an update - perhaps annually or as your collection changes.

I am searching for a volunteer to submit a column for each *Rainbow Times* issue regarding topics of interest to the RSG on the internet.

This issue's cover demonstrates the artistic talent available to ANGFA. Ron Bowman sent prints and negatives to me of this beautiful work earlier this year for our use. Thank you, Ron. We have had numerous new RSG members mention their artistic talents on the membership application. Seeing is believing.

Since *M. praecox* hit the shores approximately two years ago, articles about this beautiful species have been circulating. We are not often capable of comparing and contrasting experiences regarding a specific species without digging throughout our personal libraries. Three articles detailing individual experiences are within this issue.

(continued next page)

Please note your expiration code on your address label!

Expiration Code 0904 is **overdue** and will be removed from our mailing list.

Expiration Code 1001 is due **now**.

Please mail your membership dues immediately to ensure uninterrupted receipt of the *Rainbow Times*.

One of the *M. praecox* articles was authored by a British hobbyist, Len Eldridge. Mr. Eldridge also happens to be the editor and membership secretary of the British Rainbowfish and Goby Society. For those who might be interested in becoming members of B.R.A.G.S. and expanding your rainbowfish horizons, please inquire at:

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In each of the past three issues of the *Rainbow Times* I have encouraged readers to respond to articles. The last issue did not digest well for many of you. At least I know you read this publication.

I am specifically referring to Mr. McCabe's article, "Awesome Fish and A Wonderful Creator". I was surprised by the responses to those few paragraphs. They were unanimously negative - very negative. The responses arrived by telephone, answering machine, e-mail and many by third parties.

By coincidence, one of the responses arrived while the local tropical fish club's Board Of Directors meeting was occurring at my home. BOD members asked "What was that all about?" in reference to my holding the telephone away (way away) from my ear. They could hear much of the !*+!*#+! I was in the next room at the time!

Fact versus opinion, religious tolerance, freedom of speech, separation of church . . . , etc. are all topics for this argument. Larger publications have found themselves embroiled in similar controversies. For example, *Science News* published "When Science and Beliefs Collide" this past summer (SN: 6/8/96, p. 360). It was an emotionally charged issue as evidenced by the volume of letters they later received (SN: 7/20/96, p. 35).

At the time of assembling this issue, only two members put their opinions in writing. These you will find appended to my column. What I found most significant was Mr. Henglein's statement, ". . . criticism of the content of *RT* carries with it a responsibility to contribute something one feels is better."

I do NOT regret including Mr. McCabe's article in the *Rainbow Times*. I believe that most of what has been submitted in the past has been a combination of observations and opinions. Articles are submitted voluntarily and authors are not compensated. Who decides which opinions are worthy of publication?

I keep reminding myself, this is not a free publication. So

In the spirit of democracy, this membership ultimately decides what type of articles it wishes to read. The volume of negative responses (and lack of supportive responses) dictates that future submissions of material incorporating theological convictions does not have a place in our hobbyist publication.

I would prefer that the RSG membership use their energy in a constructive manner. Does anyone care enough to respond? We'll see.

Over the years, there have been many references to rainbowfish hybrids appearing in retail establishments. Many authors have expressed dismay and outrage. I have personally witnessed hybrids for sale and was less than pleased.

Hybridization and/or genetic altering is common in the tropical fish industry. Look in any fish store. From guppies and goldfish to angelfish and discus. In hindsight, I doubt many hobbyists have reservations about tampering with the originals. Should Australian and New Guinea fishes be exempt?

And finally, it has been nearly five months since the last issue was assembled. Without the three reprints in this issue, it would have been much longer before you received this issue. I refuse to write an entire issue or solicit articles beyond my efforts here. If you would like to receive your *Rainbow Times* more frequently . . . submit!

LETTERS . . .

Dear Kevin,

I have been enjoying The Rainbow Times, and I appreciate the time and effort that you and Gary have been putting into it. (**Ed. note #1**) Volume 9/Number 4 was an excellent issue, and I was cruising along until I came to Mike McCabe's article. Is the RSG now going to get into the battle between the Evolutionists and the Creationists? I think that I am probably most upset because I have a different take on things than Mr. McCabe. Namely, that evolution is a FACT, (**Ed. note #2**) and the rainbowfishes are excellent examples of evolution at work. The speciation in different evolutionary niches could not be clearer, unless perhaps if you look at the African rift lakes. Now this does not necessarily mean that God, or whatever you call the higher being, was not/is not involved. Perhaps we are still in the first days of Creation. Why does it have to be that after God rested everything stopped as it was. (**Ed. note #3**) I know I'm rambling, and normally I am a bit more coherent than this, but this article really

has set me off. I primarily raise angels and discuss, and if you ever need to be convinced that there is something out there much bigger and much smarter than us poor mortals, just watch a pair of discus cruising around a tank with their babies on their sides, or a pair of angels bedding down their flock for the night. Whatever one's beliefs or hopes concerning a deity, let's keep this out of RSG publications. If I want to further my religious education I know where to look, and I most certainly do not expect to find it while reading about tropical fish.

David Lass (7/22/96)

Ed. notes: #1 Others are also involved in the publication of the *Rainbow Times*. Check out the inside of the front cover. #2 A suggested reference related to "evolution is a fact": The Beak of the Finch, by Jonathon Weiner, Vintage Books publishers, 1995. Within exists an entertaining and informative account of Endler's experiment that explained why some wild guppy populations have more and brighter spots than others. #3 May I suggest Ishmael, by Daniel Quinn, Bantam Turner publishers, 1992. This is a fictional account of how the world came to be as it is - as taught to a man by a gorilla.

Dear Kevin,

I am an RSG member who recently received the RT issue containing Michael McCabe's creationist propaganda. I appreciate your efforts to be a fair-minded Editor, open to a range of opinions, but I don't think it is unreasonable to restrict the content of RT to OBSERVATIONS of our fishes (and theoretical extrapolations based on such observational data).

Thanks for an otherwise excellent issue (especially your article on *Ps. gertrudae*, one of my favorite rainbowfish). I realize that criticism of the content of RT carries with it a responsibility to contribute something one feels is better. I am temporarily "bow-less", but when this unfortunate situation is remedied I will try to submit an article to do my part.

Sincerely,

Hal Henglein (8/5/96)

Show Sanctioning

Many of our members are also connected with local aquarium Societies. If you are a member of a local Aquarium Society that has an annual show why not suggest to your members that they apply for RSG sanctioning. The rules are fairly easy. Call or e-mail Cary Hostrawser (see inside page for address) for further information.

Articles with Religious Overtones

Due to the many protests that were launched via e-mail, phone and by letters we will not be printing any more articles that would possibly offend our members concerning religion. It was not our intent to offend or divide our members with these sorts of issues. The purpose of our organization is to produce information concerning rainbowfishes and native fishes of Australia and New Guinea. At the same time however I will thank Mike for taking the time to write an article for our newsletter. The main reason that our magazine is so late is because we have a lack of articles. If you have something that you could write for us please send it in.

Rainbowfish Convention San Francisco October 19-21st 1997

It's never too early to start planning for next year's show and with the probable lineup it promises to be the best that has ever been in the United States. Although all of the particulars still need to be worked out it seems that the way has been paved to celebrate our 10 year anniversary with the San Francisco Aquarium Society, who will be celebrating their 75th year. If you've never been to this city you should take this opportunity to enjoy it. Verbal commitments have been obtained from Dr. Jerry Allen, Neil Armstrong, one of the best rainbowfish photographers around, and Gilbert Maebe. Gilbert is a long-time member of the European rainbowfish organization, the IRG. Although a lot of the details still need to be worked out (including a possible date change) stayed tuned. If you would like to volunteer to help with this show please contact me as soon as possible. If you feel that you would like to attend please drop me a note, e-mail or voice mail letting me know as soon as possible. It would really give us a lift if we knew how many hotel rooms we can tell our SF hosts that we would be filling so that they can negotiate the best rates. If you will be staying at the hotel please let me know that too. An auction is planned for Sunday. Plan on bringing some fish to the convention. Auctions in SF are always a big hit and rainbows usually demand a good price.

Volunteer for Corresponding Secretary

We need a member who would be willing to help with the letters coming in with memberships asking for other information or volunteering their special talents to help make the newsletter or group produce a better product. A computer would probably be necessary for this position and e-mail would be helpful but not necessary. Please contact me for further information about this position.

ANGFA Newsletters and Bulletins

I've had quite a few phone calls about this concerning some letters that have been sent out to many of our members. Through the national ANGFA (Australian New Guinea Fishes Association) organization the RSG will also offer an ANGFA bulletin & journal. These items are separate and an additional cost from the normal RSG membership. Dues for this will be based on 4 bulletins per year (at the present they are in the process of producing 6 per year) and 3 issues of "Fishes of Sahul" a journal quality publication. The cost will be \$US 26. If you wish to subscribe please send a check, payable to the RSG to my address. If you are renewing your RSG dues you can send that to me at the same time.

Vern Parish Fund

This deals with the American Livebearer Association (ALA) but Vern was a very special individual and I feel that we should pass this information on to others so that they can pass the word to their local clubs. Vern passed away in March of 1996 leaving a large void in the aquarium community that will take a long time to replace. There are special people in this hobby of ours and it was easy to see that talent when talking with Vern. In recognizing Vern's contributions to the hobby and especially livebearers the ALA has set up an endowment fund to support education in the field of livebearing fish. For further information you may contact Pat Hartman 12852 S. 18th Street Vicksburg, MI 49097 (616) 649-2949 or Jim Langhammer 2101 N. Vermont Royal Oak, MI 48073.

OFF THE NET . . .

Dear All,

We are happy to announce the birth of the Rainbowfish Mailing List. You are welcome to pass this message to other concerned serious rainbowfish fans, but we are not going to advertise in any newsgroups or other lists at this stage as we want to keep the discussion at a reasonably serious level for the time being.

To subscribe, send mail to: Majordomo@auug.org.au
(Please note the capital 'M')

with: subscribe rainbowfish <your email address>

e.g. subscribe rainbowfish bill@whitehouse.gov

The list address is: rainbowfish@pcug.org.au

Please note that it is '@pcug' not '@auug' like the Majordomo address.

Regards,

List Owners Alan Ford and Andrew Boyd

John D. Elwood (219) 726-4438
416 W. Water
Portland, IN 47371

Wanted

P. connieae
P. furcatus
P. gertrudae
P. mellis
P. paskai
P. signifer

Melanotaenia Praecox
The Dwarf or Neon Rainbow
by Len Eldridge

It was at the European Aquatic fair in 1994 that I first remember seeing a photo of *Melanotaenia praecox*. I was talking to a fellow BRAGS member at the time and we both agreed that this was a fish we would both like to keep and try to breed.

Over the past eighteen months there has been a few sightings of this fish in many parts of the country, but mostly in the midlands and the north. The price being asked for these fish would put most people off buying them. I have heard reports of aquarists being asked anything between £30.00 and £50.00 per pair. I have seen myself, in the last few weeks, a shop that was asking £50.00 for an adult pair.

At the end of last year an importing friend of mine told me that he had seen *Melanotaenia praecox* at a very good price, so I asked him if he would bring some into the country next time he was at the wholesaler.

It was a cold Thursday evening in January when I received a phone call to inform me that 130 young *Melanotaenia praecox* were swimming around in my friend's tank. I arranged to go and see the fish the following Monday evening, giving them time to settle down and to make sure there were no problems with the fish. I then made a phone call to Ian Pitts, the BRAGS member I had been talking to about the fish in 1994, and told him where the fish were and the cost of them. He also made arrangements to see the fish on the Monday evening.

On the Monday I arrived to see the fish as arranged, only to be told that Ian had already been and had taken 10 fish away with him. I was still met with the sight of 120 *Melanotaenia praecox*, all about 1" long flashing their lovely neon blue sides as they moved up and down a 36" long tank. I bought 5 fish for myself and another 20 for a local shopkeeper, also a member of BRAGS. At the same time, I also bought 2 pairs of *Melanotaenia splendida australis* and a pair of *Melanotaenia splendida inornata*, but these are another story.

I took the *M. praecox* home and slowly mixed the water they were transported in with the water I had in the tank set up for them at home. This was a 12" x 10" x 10" tank filled with London tap water which is hard with a pH of around 7.5. In the tank I had placed two floating spawning mops, one light coloured and one dark coloured, a bottom mop and a piece of Java moss. After 30 minutes of mixing water, the fish were released into the tank. I then turned out the main light in the fish room and left them to settle down.

The next morning I looked into the tank to see how the fish were doing. I could only see four fish, one was missing. I have never found out what happened to this fish. Maybe there were only four fish in one of the bags instead of five or maybe one had jumped from the tank overnight.

The fish looked happy enough and when I offered them a feeding of grindle worm it was taken very quickly. I have fed them on grindle worm, frozen bloodworm, frozen mosquito larvae and flake food, all of which they take eagerly.

Doing everything the wrong way round, I then read a report on the species in the Rainbowfish Study Group magazine, only to find out that the fish prefer softer water than I had given them. So I threw a handful of boiled peat into the tank, as the tank to this point had a clear bottom to it. Adding the peat showed up the colour of the fish to its best. For anyone who has not seen a picture of the fish I will try and explain its colour. If you have seen a photo of the fish, the colour of the real thing is a lot better than any photo can show.

MALE: The colouration on this fish really has to be seen to be believed. He is a very bright neon blue with blood red fins. The body shape is the general shape for the larger *Melanotaenia* species, but in a smaller version.

FEMALE: The same as the male but not quite as bright. The fins are also a lot paler in colour and have a thin white line on the edge of the anal fin. The female also tends to have a deeper, fuller body than the male.

SIZE: Both the male and female reach a size of about two inches.

As my fish settled down it turned out that I had two pairs and after only three days I found eggs in the bottom spawning mop. This was removed along with some of the water from the tank and placed in a small container with about three pints of water. I also added an airstone set to just move the water through the mop. After about ten days fry started to appear in the container, the following day more appeared, after three days there was about twelve fry swimming around the container. These were fed on A.P.R. (Artificial Plankton Rotifer)

Two days after the fry appeared in the container, fry also appeared in the breeding tank alongside the parent fish. I quickly dipped a cup into the tank and removed six or seven fry. The rest hid in the floating mops so I had to leave them to take their chances with the adults. The following morning I was very surprised to see that there were still fry swimming around in the parents' tank

and as they were still there that evening, I thought I would leave them in the tank to see if the adult fish would leave them alone or not.

After five weeks the largest fry, in with the adult fish, had reached a size of over 1/4" and the adults were still taking no notice of them. The largest fry of the ones that were removed from the spawning tank were just under 1/4" long, but these were kept at a slightly lower temperature.

At eight weeks the largest fry were almost 3/4" long and just starting to show their adult colours. The fins on the males were beginning to show a slight red colour and the body was starting to reflect a blue shine as the fish turned into the light.

At 12 weeks they are now 1" long and the males are in full colour and looking for females to spawn with. They are still in with the parent fish but are now ready to be moved into their own tank(s).

I would class this fish as being very easy to keep and spawn, and in time the silly price that is still being asked for them in some shops is bound to fall to a level that reflects the ease of keeping and breeding this fish.

The temperature in the spawning tank is between 76 and 78F. An airline in the back corner gives the water a small amount of movement. The fish were given a 10% water change each week. This water should match the water in pH and hardness that is already in the spawning tank.

The fry were first fed on A.P.R. and then moved on to newly hatched brine shrimp, micro worms and frozen lobster eggs - all of which were taken, not only by the fry, but also by the adults. As the fry get bigger so should the size of the food, until at about the 3/4" stage they will be eating the same food as the parents.

As for the cost of my pair of fish, I did not mention it before, as anyone who paid £50.00 for a pair may well have torn this page up, as my fish cost me just £4.50 a pair.

Ed. note: This article was reprinted from B.R.A.G.S., Vol. 4, No. 2, May 1996.

Liquid Sapphires With Candy Apple Halos

by Doug Chamberlain

I first became aware of *Melanotaenia praecox* - the Neon Rainbowfish after attending a lecture given by Gary Lange at the 1994 NEC Weekend Workshop of that year. It was supposed to have blood red fins and the color of a Neon Tetra. This fish was being billed as maybe the most exciting fish discovery of the century. It was said that this find was going to finally put Rainbowfish on the proverbial map. Whether it can live up to its advanced hype remains to be seen. I left Gary's talk pretty excited about this animal.

At the time of the workshop, the fish was selling for five hundred dollars a pair; so while I was enthused about them, I was not quite that enthused. A year and a half went by, and *M. praecox* had been relegated to a small niche in my sub conscious. In November of 1995, the Rainbowfish Gods opened their arms and smiled down upon me. Kevin Hosmer had arranged for me to receive several specimens from Gary Lange. The best part of this deal was that the fish were free. There was only one small catch; I needed to put Gary up for a couple of nights while he photographed my tanks. This was a small price to pay, and I readily agreed to the arrangement.

While I eagerly awaited the shipment, I did a little research into the origins and history of this fish. *M. praecox* was first discovered in 1910 in the Mamberamo River system of New Guinea and described two years later by two ichthyologists, Weber and de Beaufort. The Mamberamo forms the largest river system of the second largest island in the world, and is situated in the Indonesian part of New Guinea. This River system which is over 2000 km in length is probably the least explored in the world. The first recorded visit to the Mamberamo by a white man was recorded in 1907. Because of its sheer inaccessibility and delicate political situation over the years, very few people have visited it since. Live specimens of *M. praecox* were finally brought out of New Guinea for the first time by Heiko Bleher in 1992. This was no easy task for Heiko and required many bribes, abundant danger, a two month stay in a hospital, and most of all a large dose of luck. If you are interested, Heiko's perilous adventures in pursuit of this fish can be found in the periodical "Aqua Geographia" Vol. 7.

My fish finally arrived and I put them in a newly set up heavily planted 10 gallon tank with two small Bristlenosed Catfish. The largest of them was just over one inch in length and was just beginning to show a small amount of red color in the fins. Two months later in December I added an acrylic yarn mop hoping that they would lay eggs. Every day for three weeks I meticulously checked the mop for eggs before found the first one. I had set up a 10 gal. tank underneath the parent tank in anticipation of possibly raising some fry. The

problem I was having though was the fish were not laying enough eggs in the mops for me to collect the mops and transfer them to the raising tank. I have not had a great deal of luck in the past picking the eggs off the mops and raising them in small containers.

One day while checking for eggs, I noticed that there were several fry swimming around in the Water Sprite and Riccia that covered the top of the tank. I was excited, because this was the first time that I ever had babies swimming around with the adults without having had the parents eat them. Not wanting to tempt fate, I used a turkey baster to remove the fry and raised them on vinegar eels and A.P.R. I should note as the fish have matured, they have become prodigious egg layers, and every few days the mops are egg laden.

A few notes on the trials and tribulations of raising the fry are now in order. I've spawned and raised probably eight or nine species of Rainbowfish; I know that this is not a large amount, but it allows a comparison to be made. While the adults lay large numbers of eggs, I find that the fry are fairly difficult to raise in comparison to other species that I've spawned. On three separate occasions, I have started with fifty or sixty fry and have only been able to raise approximately one-third of them. This is a much lower rate than I'm accustomed to. The biggest problem I find is many of the newly hatched fry don't want to eat the A.P.R. and the vinegar eels don't really excite them too much either. I suspect that if there was a good source of green water and / or Paramecium the success rate might be much higher.

Another possible problem that I may be having is the size tank in which I'm raising the fry. I once used ten gallon tanks to hatch and raise the fry in, and I have now switched to five's to save space. I am finding with the smaller tanks water quality can very quickly become a problem. Two days ago I looked at my *Praecox* raising tank, only to discover several of the fish were doing the upside down dance of death. This is a tank that I kept three small *Ancistrus* Catfish in to eat uneaten food. I felt sorry for them and added a slice of zucchini for them to eat; this was a mistake. When I looked at them a few hours later, I noticed the problem. Although this tank had a well seasoned sponge filter, all it took was one slice of squash to foul the tank, because of the small volume of water. A quick sixty percent water change managed to save the fish, but in a couple more hours they all would have been dead. The moral of this story is: Don't use too small of a nursery tank, unless you are prepared to do water changes two or three times per week.

I want to talk about how I feel these fish should be displayed to get the greatest possible enjoyment out of them. The first few months that I had these fish their color was a great disappointment to me. In the ten gallon tank they were in, I used a Vitalight and had good plant growth in the tank, but the fish looked terrible. I was so displeased with their coloration that I did some

rearranging and gave them there own planted 30 gallon tank. This tank was lit with a single Phillips Ultralume tube. While the results were better, they were still not quite up to expectations. I suspect if I change the tube in the tank to a Triton I might get better color out of the fish, as I've had good results bringing out blues and reds in the past with this bulb.

Sunlight I believe is the key to really appreciating the Neon Rainbow. One afternoon I looked at the tank and noticed that sun light was streaming into the side of the tank. When the fish were in this light, they were simply breath taking. The iridescent blues and reds were like nothing I've ever seen before. The title of this article only begins to hint at their beauty. Seeing something that beautiful makes all the hard work that goes into fishkeeping somehow worth it.

In closing, I would like to say that these experiences with That Neon Rainbow are my own and yours could be totally different. Mark Twain once said,

"We have not the reverent feeling for the rainbow that a savage has, because we know how it is made. We have lost as much as we have gained by prying into the matter."

When it comes to the Neon Rainbow, let us not worry that much about how and why; let us just enjoy it for what it is - mellifluous magic in blue.

Jim Forshey (916) 622-7547
The Aquatic Book Shop
3050 Countryside Drive
Placerville, CA 95667

For Sale:

Rainbowfish: In Nature and in the Aquarium by Gerald Allen Covers 70 species	\$18.88
Australian Native Fish for Aquariums, by Legget and Merrick	\$22.50
Freshwater Fishes of Northern Territory, by Larson and Martin	\$19.95
The Fascination of Breeding Aquarium Fish, by Axelrod and Sweeney	\$59.76
Artificial Plankton and Rotifer, 300 grams	\$19.95

Postage: USA=\$2.95, Canada =\$7.50, all others \$15.00
(CA residents add 7.25% sales tax) MC/VISA/MO/CHECK all okay
(MC/VISA/MO/CHECK all okay)

The Neon Rainbow

by Donald Daugs

It was about two years ago that I put a wanted ad in NAFBG for *Melanotaenia praecox*. Finally last summer, I got a line on some of these beautiful fish and purchased three pair. They were hardly an inch long, but clearly sexable. If my wife knew what I paid for them, I'd be in big trouble.

They began producing eggs at one inch. Eggs are small and babies are very small for rainbows. My initial impression was that they produced very few eggs and the babies were hard to keep alive. Both impressions were wrong. Numbers of eggs from mature females are impressive. I am currently getting one hundred eggs per mop from six females every three days. I think the commercial breeders that have held back females are in trouble.

After experimenting with various foods for the first few weeks, I have settled on egg yolk. Hard boil the eggs and put the yolk in a blender with a pint of water and you have food for a week if you keep it refrigerated. I feed about a 1/4 cup of stirred egg twice a day. I also breed bristlenose cats. I place 10-15 baby bristlenose in each tank as the *praecox* begin to hatch. The cats help eat uneaten food. At about two weeks the fry will take brine shrimp, but I continue with the egg.

Adult *praecox* tend to be shy. I keep the breeders in a bare tank. If there are a dozen or more fish in the tank, the display well. A planted five gallon tank shows off 6-10 fish very well. However, my favorite tank is a 55 gallon with about 100 *praecox*.

The water supply here is hard and alkaline. They have spawned in water from 72°F to 80°F. Adults do well on flake food. I also feed live brine shrimp twice a day. It is easy to do this when you can collect 200 lbs. of brine shrimp eggs for a \$10 permit.

In my opinion, the neon rainbow is the most exciting new fish to come along since the cardinal tetra. The difference is that anyone can breed the neon rainbow!

Ed. note: This article was reprinted from Guild Exchange, North American Fish Breeders Guild, February 1996.

If You're Not Sure, DON'T BREED!!!

by Cary Hostrawser

It's time that aquarists began taking responsibility for what they breed. Many good fish are being destroyed due to the bad breeding habits of even our most advanced breeders. What I'm mainly talking about is out-crossing. There is more to breeding fish than just spawning and raising fry. Maintaining species integrity and viability must take an increasing role of importance when we decide to breed our fish.

So you say you've never crossed species, therefore you're not guilty on that account. It may be true you never knowingly crossed species, but it is also very likely you did cross species without even being aware of it. How many people have lost a male or female of a species and obtained another fish so you could still have a pair? Did you then breed these fish? Before you bred them did you know if they came from the same population group? Unless you were sure, you may very well have crossed species, subspecies or color forms. This destroys the genetic integrity the fish we keep and pass on to the next generation of aquarists.

Oh, so you claim to know fish too well to have never accidentally crossed different fish. Besides, if they're the same species, what's the big deal? Since I'm primarily a rainbow keeper. I'll use a rainbow example to explain this problem.

Rainbows are very confused taxonomically. If you were to look at the difficulty in identifying these fish to genus, species, subspecies and color form, it might make the problem clearer. I'll choose *Melanotaenia eachamensis* since no other bow has had its taxonomy studied as extensively. This is because *Melanotaenia eachamensis* went extinct in the wild. Many felt it should have been described as a *M. splendida* color form or subspecies and identified as such. Then physical variation does not greatly differ from many other *M. splendida* and its subspecies. After all the work was done it ended up being its own species and endemic only to Lake Eacham.

Do to the introduction of non-native fish into Lake Eacham its numbers began to drop. The area encompassing Lake Eacham was in a nature preserve and nobody could remove this fish from its native waters. Some Australian native fish keepers took some fishes out of the lake and established a captive breeding program. This was an illegal act at the time. These are now the parents to the only *M. eachamensis* Lake Eacham fish left in the world today. They no longer exist in the wild. On subsequent surveys of the area, fish were found in nearby waterways which appeared morphologically similar to the Lake Eacham rainbow. Some claimed they were just another *splendida* others thought they

were true variants of the *M. eachamensis*. To figure out what they were genetic testing was under taken of the fishes. By using the captive population they were able to determine that they did have the genetic fingerprint of *M. eachamensis*. They don't look exactly like the Lake Eacham rainbow but they are presently considered the same species. But there are also *M. splendida* on this tableland that look identical to these fish. You cannot tell the difference when you look at these fish. You can only tell with genetic testing. On top of this, some areas of this tableland have fish that are a cross between the two species. Again, only genetic testing can distinguish them apart. Mixing any of these four populations of fish would destroy what nature is making. These different populations of fish are evolution at work. Whenever we get a new rainbow (or any other fish) we're getting a slice in time from a specific location.

Now, if aquarists go out and get any other *eachamensis* what have we done? We may have the same species, but then again maybe not. What is the same species today, may be a new species or subspecies tomorrow and visa versa. Remember that *eachamensis* was once considered a *splendida* by many. And many scientists do not agree fully with the findings of the latest study. This probably means a new study will someday be undertaken. And when that's published we may have a new species or subspecies again. If aquarists had been breeding these fish with no thought to the population group they came from, what will the species be of the fish we have in our tanks? They will be crosses. They will not resemble any of the fish from the wild.

Many of the fish that have been in the hobby for years, are now recognized to have once been multiple species. Nothing can be done for these fish today. We need to recognize them as the manmade variants they are and keep them separate. Most are not as attractive as the original imports. Others have been bred to bring out specific characteristics that would destroy their survival chances in the wild. However the new fish coming in from the wild can be kept separate, recognized as the unique fish they are. This means species, subspecies, color form and collection location.

This is not just a problem with rainbowfish. The South American cichlids are going through and unbelievable amount of classifying. Many fish that were considered one species are now multiple. The *loricaradids* have barely been described and new ones are brought out faster than they can give them L numbers. Look at the killie keepers. Here is at least one group of fish keepers that have recognized this flux. They keep track of not only the genus and species but each collection. This is a numbering system that recognizes each time the fish are removed from the wild environment. If these fish are split or grouped in the future, we will still know what we have. With most other species we will not.

This does not mean I'm advocating inbreeding. That's another topic all together, with its own dangers and harm to the fish. But if we continue only to care about what species a fish is, more and more will fall into the category of manmade fish. As man encroaches on and damages more waterways, fewer wild caught species will come into our hobby. And all we'll be left with is poor comparisons of our former wild finny friends. The latest United Nations study on endangered species has just determined that 34 percent of the known species of fish are now threatened with extinction. How many aren't even known yet? Were do we get new fish when these are gone?

Kevin Hosmer	DLHOSMER@aol.com
RR 3 Box 4353	
Milton, VT 05468	(802) 524-7309

Available

<i>P. gertrudae</i> , Giddy River	available in quantity
<i>G. incisus</i>	juveniles only
<i>G. wanamensis</i>	eggs only

Cary Hostrawser	caryho@ix.netcom.com
12920 Zachary Cr N	
Dayton, MN 55327	(612) 422-9446

Available

<i>I. weneri</i>	\$15/mop
<i>M. affinis</i> , Emas Lake	\$15/mop
<i>M. arfakensis</i>	\$15/mop
<i>M. lacustris</i>	\$15/mop
<i>M. misoolensis</i> , Batanta	\$20/mop
<i>M. papuae</i>	\$15/mop
<i>M. praecox</i>	\$15/mop
<i>M. splendida rubrostriatai</i>	\$15/mop
<i>P. furcatus</i>	\$15/dozen eggs
<i>P. gertrudae</i> , Giddy River	\$15/dozen eggs
<i>P. gertrudae</i> , Goanna Lagoon	\$15/dozen eggs

These and others are available depending on the amorous intents of the fish. Please call before ordering to see what's happening. May also have some peacock gudgeons available shortly.

Glossolepis Incisus “Salmon-Red Rainbow Fish”

by Jacklyn McNaughton

This species habitat is from Northern New Guinea, in Lake Sentani and surrounding area. They are a peaceful, timid and active schooling fish.

The male has a higher back and fins and a pink to red body. The female has a more elongated, yellow-olive body with golden yellow scales and transparent yellow fins. The coloration of the male depends on their mood. Subordinate males do not display bright colours. These rainbow fish are sometimes called “children of the morning sun” because the male generally performs his courship display in the mornings. Their colours are much more brilliant in the afternoon.

I found them very easy to spawn. They prefer hard water 18-25 of GH, pH 7.0 and a temperature of 72-79°F. The tank I set up was bare with loosely planted cushions of Java Moss for a bottom medium. A wool mop can also be included. This is good spawning substrate. These fish are continuous spawners. Eggs are deposited on the Java Moss or wool mop. Once or twice a week I took out the Java Moss and squeezed it out. Any eggs I found were picked out and placed on a small piece of Java Moss and placed into a rearing tank. References suggested using the same water as the maintenance tank, but I used clean hard water, a sponge filter and an air stone. The eggs are sticky and clear as glass. They hatch after one week or more. The fry will swim below the water surface and immediately start taking food. I fed dry fry food and later live brine shrimp. They also like a mixture of green vegetables. The fry grow slowly, are very active and enormous eaters. The males will begin to change to brighter colours after reaching a length of two inches.

I spawned them twice, then returned them to my 40 gallon rainbow tank. Then I got greedy and decided to spawn them one more time. But after transferring them back into a breeding tank, the female was very unhappy and upset. A few days later she died. No more eggs were found. I would like to find another mature female, but right now I have my fry over two months old. I enjoyed spawning these fish and appreciate the knowledge and experience I have again gained in this fabulous hobby of spawning tropical fish.

Ed. note: This article was reprinted from the Regina Aquarium Society newsletter - Sept/Oct 1994.

Meet the RSG

by Peter Unmack

Cary Hostrawser

Cary Hostrawser is considered somewhat of an "old timer" in his local club, the Minnesota Aquarium Society having been a member for 10 years. During his fishkeeping years he has managed to spawn over 100 fish species. Presently, Cary maintains around 47 tanks. He keeps a variety of fish including some natives, tetras, cyprinids, catfish and a couple of livebearers. Of course, Oz/NG fish dominate his collection with around 20 species including rainbows, blue eyes, desert gobies, and two gudgeon species. Probably his best talent in my opinion is his green thumb. Cary is one of the few American fishkeepers I have met who really knows how to grow fantastic plants. His tanks are a delight to watch! Cary's water supply makes his life interesting: a pH of 9.5, 18° general hardness and 15° carbonate hardness! This necessitates the use of an RO unit in order to obtain suitable aquarium water. Onto the man himself.

What started your interest in fishkeeping? When I was 11 years old (26 years ago), I had 47 little bullhead catfish in the bath tub that were destined to be food for Great Horned Owls. The owls didn't like them so I ended up keeping a few of them in an old 10 gallon tank that had previously been inhabited by gerbils. Soon after I obtained a 5 and a half gallon tank and kept moon platies. Another kid in the neighborhood had over 8 aquariums, so I hung out with him looking at shops, etc. I joined the local aquarium society at 13 or 14 years of age and things really took off. Since my beginnings I've always kept fish, up to 56 tanks just before I finished high school. My lowest number was 2.

How did you get into rainbows? I've always had an interest in Australia and New Guinea fishes, it's just that they were never available. Around 3 years ago while looking for some dither fish to go with my African cichlids I found some "Australian rainbows". Another club member had *Glossolepis incisus* so I stuck some of them in too. Through further searching I found another couple of species. Then tragedy struck, Gary Lange came to speak at my club and I bought some eggs and made acquaintances with him. I started spawning and raising my *G. incisus*. Work sent me to St Louis so I called in on Gary. I left with a bunch of eggs and I've been a strong addict ever since. The Africans are all gone now!

Favorite rainbowfish? Whichever one is in front of my eyes at the time! But, I guess if I had to narrow it down I would say *Melanotaenia trifasciata* Goyder River, *Iriatherina wernerii*, *Pseudomugil furcatus*, and *M. lacustris*.

What was your greatest misconception regarding rainbowfish? That I actually thought I knew something about rainbows when I began! Also, I

always figured that the Aussies knew more about bows than we did. That is to say that they don't know the answers to many of the questions pertaining to some of the difficulties of rainbowfish care just like we still don't.

Biggest mistake with rainbows? Stopping by Gary Lange's house on my business trip! Seriously though, I think that people shouldn't take one person's advice as gospel, try getting everyone's advice until you find what works for you.

Greatest frustration with rainbows? That there are some species that I can't get the fry to survive and I can't figure out why. I keep trying *Chilatherina sentainiensis*, however the fry never make it for long until I increased the water hardness.

How did you get involved with the RSG? I had planned to join after Gary's talk in Minnesota, however, I didn't get around to it until I visited St Louis. I also joined ANGFA around the same time to increase the influx of bows into my brain. One of these days I guess I'll join the IRG too. The highlight of RSG membership for me is the conferences. It allows you to set up networks with people which allows a far greater exchange of ideas and fish. You also tend to make many good friends that way too. I took on show sanctioning and the breeding maintenance program in 1995. I was asked for suggestions on how to get / improve both programs. Getting involved in the RSG furthers the avenues to meet people and I get to hear more as to what is going on around the country. Also, I am presently working on a breeders achievement award for the RSG. It will be set up quite differently to most other club's BAPs.

The “other half”--Kim

Kim, what are the worst aspects of Cary's fishkeeping? We have a whole portion of the house devoted to water. I'm paranoid that we will be flooded one day!

What are the good aspects? The aquariums are attractive and artistic making them an attractive addition to the household environment. Also, there is the fact that he hasn't yet tried to invade the living room!

RSG STORE

- 1996 Rainbowfish Calendar

This is a small, free standing calendar by Dr. Allen. Calendar size is 7"x 5 " with the picture just a tad smaller than 3"x 5". What fish are included? *C. bleheri*, *C. fasciata* (the hypnotic one - not the one in the hobby), *G. incisus*, *M. herbertaxelrodi*, *M. species* (Kantobo, PNG), *M. species* (Lake Kamaka, Irian Jaya), *M. boesemani*, *M. eachamensis* (Dirrin Creek), *M. lacustris*, *M. trifasciata* (Coen River), *M. vanheurni*, & *M. irianjaya*. The price of this calendar is only \$4 US plus shipping.

Shipping for calendars:

U.S.:	1 @ \$1.25	2 @ \$2.00	3-8 @ \$3.00	9-12 @ \$4.00	
Canada:	1 @ \$1.70	2 @ \$2.10	3 @ \$2.60	4 @ \$3.00	5 @ \$3.50
Airmail:	1 @ \$3.40				

- Poster: Blue-eyes and Australian Rainbowfishes

Unsigned copies are \$12 and signed copies are \$15.

Shipping & Mailing Tube for posters:

U.S.:	1 @ \$2.70	2 @ \$2.95	3 @ \$3.20	4 @ \$3.65	5-18 @ \$4.00
Canada:	1 @ \$2.65	2 @ \$2.80	3 @ \$3.20	4 @ \$3.40	5-7 @ \$4.30
	(surface mail)				8-12 @ \$5.10

- T-shirts

This is a Karen Randall design depicting *P. furcata* and *M. praecox* (the neon rainbow). "Rainbowfish Study Group" proudly arches in rainbow colors over the top of artwork while "Living Color" balances below. A quality shirt was used in the process - Fruit of the Loom "Best", a 50/50 cotton/polyester blend. There really isn't any shrinkage. As with all shirts with a silkscreen design it should be washed in cold water and drip-dried.

L & XL: \$12. XXL: \$13.

Shipping & Mailer for T-shirts:

U.S.:	1 @ \$3.00	2-3 @ \$3.60	4-5 @ \$4.60
Canada:	1 @ \$3.00	2 @ \$3.30	3 @ \$4.50

Combination: 1 Poster, 1 Calendar & 1 T-shirt

You won't have to pay for a mailing tube or a padded mailer.

Shipping & Mailer for Combinations:

U.S.:	1 @ \$3.00	2 @ \$4.00	3 @ \$5.00
Canada:	1 @ \$4.07	2 @ \$5.67	

- Best of RSG

This is a compilation of the best articles originally published in the Rainbow Times - encompassing (approximately) the first 7 years of publication.

RSG book with shipping

U.S.	book rate	\$13.50
Canada	surface	\$14.00
	air	\$15.00
Overseas	surface	\$15.00
	air	\$18.00

Send requests for items to:

Gary Lange
2590 Cheshire
Florissant, MO 63033

Payable in U.S. funds only, checks payable to the Rainbowfish Study Group.

If you would like to order larger quantities of any item(s), we'll check UPS rates. If you have any questions you can call me, Gary Lange, in the evenings (6-10 CST & most weekends until 10 pm CST) at (314) 837-6181 or email at GWLANG@CCMAIL.MONSANTO.COM

FISH AND EGG LISTINGS

Send fish and egg listings to: Kevin Hosmer
RR3 Box 4353
Milton, VT 05468

Space permitting, your listing will run for two issues unless you specify otherwise. The standard for listing a mop is at least 24 eggs in the mop. Most rainbowfish usually produce more than that. If not, price should be specified per dozen eggs.