# Livebearer News

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### **Data Protection Act**

In order to comply with the requirements of the Data Protection Act, we need to inform members that their name, address, email address and telephone number are being maintained on a database, the purpose of which is for the distribution of the Association's magazine and to inform members of forthcoming events. This information will not be provided to any other organisation for any purpose whatsoever without prior consultation. The association agrees to remove any details at a member's request.

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### **Editorial**

Perhaps you have heard of the old Chinese curse "May you live in interesting times"? Well we certainly live in interesting times at the moment. And our autumn convention seems to be cursed. The original idea was to hold the meeting in September. Steve, Bill, Paddy, Clive, Nigel and others put a lot of thought into how the meeting and auction could go ahead whilst minimising the risk to anyone attending. Then it was postponed to November, in Basingstoke, and a lot more thought was given to safety matters. Now the coronavirus situation seems to be getting worse again and everything is on hold. A final decision whether or not to go ahead and hold the convention will be taken during October. I will email out the decision and all details about when where and how when I have the information. I, for one, am still hoping that the convention will go ahead.

**OK Scrap the above!** The committee had a meeting on "Zoom" yesterday evening and it took about two seconds to agree that this autumn's meeting is cancelled. However, we hope to put on two events next year, in April and September – details to follow.

So what did you get up to during the lock-down? I put a lot of time into my fish-room, though you probably wouldn't know it to look at it. Alan Rothwell did a near-complete re-build of his fish-room and has sent me an article about it. Many thanks Alan. A new contributor is Heather Walford, with her article about finding the right aquarium shop for you. Welcome to the BLA Heather, and many thanks for sending me your article. The main bulk of this newsletter is taken up with an article by Markéta Rejlková, describing her experiences in Mexico. I met Markéta at the Goodeid Working Group convention at Chester Zoo last autumn, and she promised me an article about her experiences in Mexico then. She has been as good as her word, for which I am very grateful. She also makes me want to go back to Mexico, though I don't suppose that will happen within the next year or two.

Also, I must thank J. Sara Fulton for continuing to send me her excellent photos of her fish and John Lyons for sending me some of his native fish photos.

And now I don't have any articles in reserve. So come on! Send me your thoughts or experiences, about the fish you keep or your fish-house or what you did to improve your fish-keeping during lock-down. Anything and everything is welcome. The alternative is that I copy old articles from old copies of "Viviparous". I know which I would prefer to see.

Finally:- I have changed the format of the newsletter. The old style had been due to the need to print off copies for a few members but no-one has a printed off copy any more and this format takes less work to edit. What do you think?

Keep safe and well,

Greg

# **Livebearers of Tamaulipas**

Markéta Rejlková



Xiphophorus xiphidium, aquarium specimens.

Tamaulipas is one of Mexican federal states, stretching from the border with USA (Texas) along the Gulf of Mexico down to Tampico. It is not visited very often by tourists, and for a good reason – being mostly agricultural and industrial, it does not offer much to see, but it is ranked by many Ministries of Foreign Affairs as highly dangerous territory and citizens of European countries and the USA are strongly discouraged from traveling there. Two drug cartels rival in Tamaulipas and it leads to assaults, kidnapping and murders. Not directed towards tourists, but who wants to be on a bad place in a bad moment?

Anyway, if you want to visit some interesting biotopes and see certain fish species in nature, you have to go to Tamaulipas. Fish fauna here is not especially rich, but it is dominated by livebearers. This was a good reason for us to make two short trips to Tamaulipas in 2010 and 2018. In this article, I want to show you few remarkable places and its inhabitants.

Three genera of livebearing fishes dominate here: *Xiphophorus*, *Gambusia* and *Poecilia*. Let's start with the first one, my personal favourite. Tamaulipas is not the hotspot for these fishes, but it is home of *Xiphophorus xiphidium*. Although visiting some places where *X. xiphidium* should live, we were not lucky enough to find it.

The Río Purificación in Barretal is a huge river with almost clear water and rocky bottom; it was strangely without small fishes, we saw only tilapias, native cichlids (*Herichthys pantostictus*) and very few gambusias hiding in the shallows.



Above and below :- Río Purificación in Barretal. It was strange and sad to find only a

very few fish here.





Herichthys pantostictus, the most common cichlid in southern Tamaulipas.

The Río Guayalejo gave us the same impression and in addition we spotted some juvenile bass (*Micropterus salmoides*) and again tilapias. Unfortunately, tilapia is spreading through the numerous channels which interconnect main rivers in the coastal floodplain. In Río Sabinas, another known locality of *X. xiphidium*, we found platyfish – but not the right one. Those fish were apparently sick, in very bad condition, and they were not *X. xiphidium*. I believe they were hybrids. This was in 2010; eight years later, we did not find any platyfish there. But we found very similar fish in a small stream further towards north, this time in a good shape. Although it has the tail patterns typical for some *X. xiphidium* strains, it does not have the thin caudal peduncle and other body proportions typical for this species. It does not look like *X. variatus* neither, but it is much closer to this species than to *X. xiphidium*. *X. xiphidium* is probably still present in distant locations up in the mountains, but the state of rivers in the floodplain is deteriorating (mainly due to water usage and tilapias) and I am afraid that this species is not as widespread as it is believed.



Above and below: - Xiphophorus sp., wild caught females. This platyfish might be X. variatus or some hybrid.



When speaking of *X. variatus*, this species is now spreading throughout Mexico, but originally it had one special location in Tamaulipas. It is Jaumave, isolated valley in Sierra Madre Oriental. The Jaumave population of *X. variatus* is kind of a mystery, because it lives quite far away from its relatives.

But we didn't travel to Jaumave. Instead, we went through the Sierra Madre mountains in the southern part of Tamaulipas to continue to the land of northern swordtails – states San Luis Potosí and Hidalgo. Here in Tamaulipas, only one species is present – *X. nezahualcoyotl*. We didn't find any in Ocampo (where exotic *Pseudoxiphophorus bimaculatus* was present among other fishes), but not far away from here I snorkeled in a small stream in the village called Ricardo Flores Magón. It was not the most romantic place and water temperature was only 16 °C, but it was a great opportunity to observe numerous *X. nezahualcoyotl* looking for some food among fallen leaves on muddy bottom. The stream was full of healthy fish with tetras, mollies and again *P. bimaculatus*.



Ricardo Flores Magón, small stream with *Xiphophorus nezahualcoyotl, Poecilia mexicana, Astyanax mexicanus* and *Pseudoxiphophorus bimaculatus.* 



Xiphophorus nezahualcoyotl, wild caught male.



Pseudoxiphophorus bimaculatus. Not original in these parts of Mexico, but this species is now almost everuwhere. It does not grow to big size in cold mountain streams (here in 16 °C together with Xiphophorus nezahualcoyotl).

The second group of livebearers that you cannot miss are the gambusias. It was almost mandatory for us to visit the backwater section of Río Guayalejo in El Limón, the type locality of *Gambusia quandruncus*. On the same place, among dense

vegetation, another three species live: *G. aurata*, *G. vittata* and *G. regani* (*G. panuco*? – I will use the first name as *panuco* is considered to be a junior synonym for the same species, though according to some sources, these fishes might be different). I have to admit honestly that this place was amazing from above and we did see some gambusias near the shore – but there were so many mosquitos that we literally ran away.



Above and below: Gambusia aurata. Males have orange fins and often orange body. Females coloration is greyish with black dots in several rows, but quite often gets also orange. This species has blue eyes under the right conditions.





Above and below :- El Limón, habitat of four different gambusias. We spotted some of them between dense plant growth near the shore.



**G.** *vittata* and **G.** *regani* are quite common in Tamaulipas, especially in flowing water. *G. vittata* is successfully kept in Europe and it is very nice and active fish, preferring areas with at least moderate current. *G. regani* looks similar but more delicate and we found it usually in high numbers along shores.

I have already mentioned Río Sabinas, place where we looked for platyfish in 2010 and again in 2018. On both of these occasions, we found there very conspicuous species, *G. aurata*. Its name means "golden", but it is rather orange. Males could be brightly orange and also females are colourfull. It is very nice small gambusia, reaching a size of 2 cm (males) to 3 cm (females). I don't know if it is kept in Europe now, few years ago they were present and I was one of the people who tried their luck, but failed. We managed to get the second generation, but they never bred again. I am not sure of the root cause, maybe we were not able to give this fish the right food? It was still nicely colored and looked healthy, but females were not getting pregnant.



Gambusias hiding in Río Purificación.



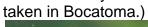
Gambusia regani.



Río Sabinas where we found beautiful *Gambusia aurata*.



Above and the following two photos: - *Gambusia vittata*. It is quite common in clear rivers and very numerous in densely vegetated areas. (Underwater pictures were

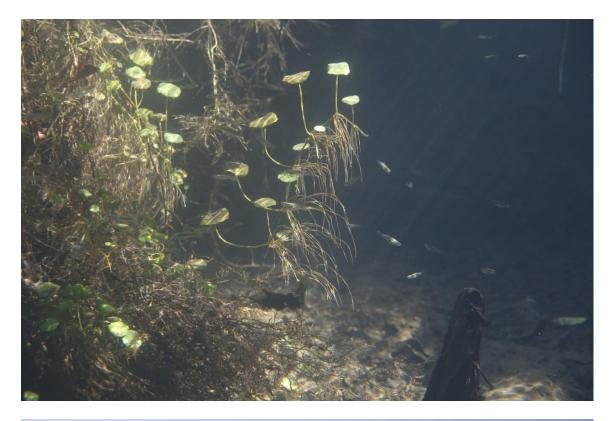






Above and below :- Bocatoma. Popular touristic destination with crystal clear water. I had to snorkel inside the dense plant growth near shores to find numerous gambusias hiding there. Tetras were in the open water together with few big tilapias.







There are many irrigation channels in the lowland part of Tamaulipas. This region is highly agricultural and water is a precious commodity. The mountain range in the background is Sierra Madre Oriental.

The last major group of livebearers which will be presented in this article is the one you will meet probably everywhere – mollies. Usually it would be *Poecilia mexicana*. This highly variable species is widespread and very common. We always admired their variety, nice colors and strong bodies. Tamaulipas is also home to *Poecilia formosa*, the famous Amazon Molly without males. Its reproduction mode called gynogenesis is very special; female needs sperm to activate the development of eggs, so it mates with males of related species (*P. mexicana*, *P. latipunctata*, *P. latipinna*). We did not see this fish, but we were not looking for it.



Poecilia latipunctata, wild caught female.



Above and the following two photos:- Poecilia mexicana and its variability.





Sara's photo

Xenotoca doadrioi Photo : J. Sara Fulton

# Finding the right shop by Heather Walford

Finding the right shop is so important when it comes to fishkeeping. Trips back and forth to your local fish shop can be a regular occurrence especially when first setting up. Obviously, cleanliness and presentation is usually one of the first things we look for when entering a shop but finding a good retailer can make all the difference between really enjoying the hobby to hating it and giving it up completely. Like most things, there is good and bad in everything. In this article, we will focus on the things that make a good store and what to look out for so you can choose the right one for you.

One of the most important things to look out for is livestock. A place that stocks a wide range of livestock is a bonus (as it means a lot more choice) but the overall health of a shops livestock is one of the most important indicators of whether it is a good store or not. It is your job to take a look around at the overall health of the fish and make an overall assessment. Remember that fish should be healthy, active, alert and not showing any obvious signs of illness or parasites. If a large majority of fish are looking thin, lethargic and sick, then you would be better going elsewhere. A good store will take any ill fish off sale and place them into quarantine. Nobody wants to buy a fish from a tank where other fish look sickly.

Another way to find the right shop is to work out how knowledgeable they are. Knowledge is definitely needed when working in aquatic retail. Some businesses will have a very wide range of knowledge and skills whereas some not so much. Ask a few trick questions if need be and see how they answer! From my experience working in aquatic retail, never judge a book by its cover as a lot of younger people working in aquatic retail are just as knowledgeable as some of the older ones if they were given the chance to prove themselves. A reputable aquatic shop will be more than happy to spend time with customers by answering questions, giving help and offering advice. Do bear in mind that some days will be much more busier than others but they should never make you feel like a burden as it's likely you won't want to come back and spend your money!

All aquatic stores should be able to provide correct details and maximum sizes for each fish and warn you if a fish you intend to purchase will grow large. Any store that wants to sell you a common pleco or common goldfish for a 2ft aquarium without warning you of it's maximum size is definitely one to avoid! You will also want to avoid any aquatic stores that sell dyed and tattooed fish. These fish have not given their permission to painfully modify their body. It is legal to do this in Asia but illegal in this country. Sadly, it still isn't illegal to import them hence why they still appear in the aquarium trade. If nobody was buying them, shops wouldn't be selling them. There are a few campaigns that are currently trying to raise awareness and get this practice stopped.

Another one to remember is to never judge a shop by its size. It is often the smaller ones which are the best! I have found many hidden gems on my shop tours and none of them looked what they first appeared to be. I was blown away! Sometimes bigger is not always better. Most stores will usually offer a generic range of dry goods and essential items so you can't go wrong. Some stores will even offer water testing, RO and salt water. Other stores won't be able to offer this service. One thing that I have learnt over the years, is to judge by quality and never quantity.

Lastly, you can always tell a lot about a company by their mission statement and their passion for what they do. There is nothing better than talking to someone who is full of passion for what they do. You can count on the fact that they will want to see you and your fishkeeping endeavours succeed. Sometimes, you can be spoilt for choice when it comes to aquatic stores. I always prefer the ones that are willing to go the extra mile. After all, who doesn't?

## Article by Heather Walford

# Thoughts on my fish-room by Alan Rothwell

About 18 months ago I decided to move tanks into my living room because my fishhouse was costing me too much to run. It started with one stand from floor to ceiling and ended with four which amounted to thirty-four tanks. This part I have written about before. Anyway, I had a visit from a council house inspector who was not happy with all the tanks being in my living room. So I thought "what can I do now?" When I brought the tanks into the house my multigym was moved into the old fishhouse. While I was doing my bit of keeping fit I noticed draughts blowing in from numerous places which should not have happened with all the insulation that I had put in. Now the shed was twelve years old, so I pulled all the insulation out and discovered that just about all the 2" x 2" timber that sat on the concrete floor had rotted away leaving numerous gaps for the wind to blow in. I then mixed a load of concrete and went and cemented all round inside the shed and out. This still left me the problem of what to do with my thirty-four tanks – do I cut down to four or five tanks in the house and pack in being a serious fish-keeper or what? Fish-keeping has been my hobby for 58 years now, so what do I do? About this time my winter fuel payment came through and I decided to spend the lot on doing up my shed. I bought three second-hand double-glazed window frames from a demolition place and a load more polystyrene. I now have 5 inches of polystyrene insulation on the sides of my shed and 6 inches on the ceiling. I used 12 tubes of sealant in sealing all the gaps in the joins and staggered the joints so that they were not in the same place. I then did my measuring-up and then built new stands and all the thirty-four tanks went back in the shed leaving plenty of room for more tanks. Whilst I was thinking of buying some second-hand tanks I had a phone call fro an old friend who I had not heard from in about twenty years because he had packed in his fish house and since he lives about twenty miles away we had lost touch. He wanted to know if I was interested in his old tanks which had been stacked up in his old coal-house unused for many years. The timing could not have been better.

Another friend ran me up there as I have no transport of my own. There were sixteen assorted tanks from 18" to 24" to 30" and also 36" x 15" x 12". I asked what he wanted for them and he said "nothing" as I had helped him in the past. A welcome bonus.

I am now back up to fifty tanks and so far the extra insulation seems to be working. For the first time in fifty-eight years of fish-keeping I have empty tanks to play with because of this lock-down that we have. I can't see this lasting long when we get back to normal. [If that ever happens!]

## Observations on Xiphophorus Montezuma by Alan Rothwell

I first came across these fish on a visit to Pat and Derek Lambert, life-long friends. This was more than twenty years ago when they had a double garage with 160 tanks in there. Derek had the *X. Montezuma* in a 4 foot [1220mm] tank. There were at least forty or fifty fish in there with young. He had collected these himself from Tamasopa, Mexico. At that time I was more thanninety per cent into goodeids with only three species of swordtails so I did not bring any home with me. I first bought some for myself at an auction we held in Yorkshire about five years ago [maybe more]. I was determined to buy at least one pair. There were two adult pairs for sale so I did not bid for any other lots. They ended up being the dearest fish in the auction at £38 and £43.

Over the years I have kept this species from three locations: Tamasopa, El Quince and Vera Cruz. The ones from Tamasopo and El Quince look much the same to me but I have been told that the locations are only a few miles apart on the same river. I have also been told that wild populations can vary from silvery fish with very little black markings to a lot of black markings on them.

If you want to do well with these fish, they like a large tank with a good flow of water. Mine are in a four foot tank. If you have a well planted tank with plenty of hiding places enough of the fry will survive. It is also one of those fish that once you think they are doing well and take your eye off the ball they seem to start dying off on you. I also think that if you have them for a while it is a good idea to put some new blood in with them, providing of course that they are from the same location.

Good fish-keeping. Alan Rothwell



Xiphophorus montezuma El Quince: Photo : Alan Rothwell



Xiphophorus Montezuma Vera Cruz; Photo: Alan Rothwell 23

# Does your tap-water suit your fish?

I was lucky enough to be able to attend the Goodeid Working Group convention that took place last November at Chester Zoo. As I have reported before in a previous newsletter, the zoo staff looked after us very well and included was a tour behind the scenes of the zoo's aquarium. Amongst the livebearers they kept in tanks behind the scenes were a number of goodeids, including *Allotoca zacapuensis* and *Characodon lateralis*. They were in beautiful condition and obviously breeding freely. I currently keep *C. audax*, which are not doing well, and in the past I kept *A. zacapuensis* through three generations before they just stopped breeding for me and I lost the species after a while. I recently emailed the aquarium staff at the zoo asking what they added to their water that helped their *goodeids* to stay in such good condition. Becky Goodwin has emailed me back with the information and I have included most of the email below:-

The mix we use is aiming to be a replica of Pazcuaro water. The fish we were having most issues with were from Zacapu and Patzcuaro. Though not perfect the logic is that even if the mix is not from the right lake, it is probably much better than water from Chester!

All compounds used are purposely easy to get hold of, safe and relatively cheap.

I'm not sure how much of the set up you got chance to see when you visited, as it did end up a little busy everywhere! But we have two 200l vats for mixing. They have pumps continuously mixing. There are 50l increment marks and we aim to use 150l at a time to water change, it just makes it easier to not have to worry about the volume at the bottom with the pump when it comes to dosing.

Below is the list of what we are currently using. We have purposely kept them as separate mixes for now as there are still small changes being made. But putting the same quantities into just two mixes is what is planned for ease going forward. So have (Na<sub>2</sub>CO<sub>3</sub>, KHCO<sub>3</sub>, and NaHCO<sub>3</sub>) in one and (MgSO<sub>4</sub>, CaCl<sub>2</sub> and MgCl<sub>2</sub>) in the other.

All of the volumes are what are added to our 150L mixing vats

$Na_2CO_3 - 215g/I$	100ml

$$KHCO_3 - 112.3g/l$$
 100ml

MgCl <sub>2</sub> – 44.76g/l	250ml
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$$NaHCO_3 - 68.34g/l$$
 500ml

These are obviously made to be suitable for ease of use with our facilities, but they can be changed to suit different individual's needs. I'm sure you will be able to do any calculations needed fine if you used to teach it! But, especially if you pass it on, I'm very happy to give a hand to give weights for mixes that might suit other situations better.

These values are a little lower on carbonates and bicarbonates than the actual lake, this is because it gets difficult to dissolve and at the time we had only one mixing area. If we make any further changes I can send them over if you are interested, but we have been using this for a while.

The final water has a conductivity of around  $700\mu S/cm$  and a pH around 9. I am aware that this might be harder for some people to test for. The pH can seem a little alarming, but it is actually a little lower than would be ideal.

Mixing it separately and with RO are preferable. But again, I know it may not be easy in all situations to have this. Personally I think it is worth trying to work around the limitations and dose into the tank and use tapwater/ HMA if necessary, I think there is enough potential for benefits. But obviously would need taking with a bit more caution as we'd have a lot less idea exactly what is in that specific water.

I'm very happy for you to share the information. Again, the more people seeing if they see any positive results the better. It's worth pointing out again that this is working well for us, but has only been used here for now.

Please feel free to contact with any further questions, I will do my best to reply quicker as I imagine there will be less information needed. I appreciate your interest in it.

# So what does this mean to us as hobbyist aquarists?

Well, Chester Zoo make up their solutions in 150 litre mixing vats. My plastic water butt has a volume of about 150 litres. If I make up a stock solution in that I will need :-

Formula of compound	Name of compound	Weight needed for 150 litres of solution
Na <sub>2</sub> CO <sub>3</sub>	Anhydrous sodium carbonate [Caution, Irritant]	21.5 grams
MgSO <sub>4</sub> .7H <sub>2</sub> O	Hydrated Magnesium sulphate = Epsom salts	0.11grams
KHCO <sub>3</sub>	Potassium hydrogencarbonate = Potassium bicarbonate	11.23 grams
CaCl <sub>2</sub>	Anhydrous Calcium chloride	4.42 grams
MgCl <sub>2</sub>	Anhydrous Magnesium chloride	11.19 grams
NaHCO <sub>3</sub>	Sodium hydrogencarbonate = Bicarbonate of soda	34.17 grams

This is starting to look expensive! None of the chemicals above is expensive, but a balance to weigh them out accurately would be over £50. And the solution would need to be made up in RO water, or maybe rain water. Hmmmm!

If anyone has a go at using this information, will they please contact me.

I am very grateful to Becky for sending me this information and thought that I should share it with the BLA membership who might be keeping *goodeids*. My own tap water is about 9 or 10 °DH and has a pH of about 6.7 . I intend trying to adjust my tap water to something closer to that used by Chester Zoo. I will make the changes gradually and let you know how I get on.

# **Photos from John Lyons**

OK so these fish are not livebearers, but they were send me by livebearer expert

John Lyons, and I liked them so I decided to share them with you!



Rainbow darter, Photo John Lyons



lowa darter: photo is from the Illinois Department of Natural Resources

## Diary dates

The BLA committee are hoping to organise two events next year, the coronavirus situation permitting.

- 1. A 1-day meeting, show and auction in mid-April, possibly in Leicester.
- 2. A two-day [probably] event on the 18<sup>th</sup> and 19<sup>th</sup> September, possibly in Derby.

I will, of course, email out details closer to the time. Let's just hope that the virus situation allows us to go ahead by then.

# Market place

We were due to hold an auction at the event that we have had to cancel. Plenty of people were hoping to sell fish that they had bred and also they were hoping to be able to buy new species. Since that cannot now happen, why not let me know what fish you have that you want to sell or that you are looking for? I will include a section in the next newsletter with your wanteds or the ones you want to sell.

I have a number of *Ataeniobius toweri*, Media Luna. If you would like some of these, get in touch at :-

gjrsrr12@gmail.com

# **Species control**

There have been a few occasions recently when people have got in touch with me in the hope that I could tell them of someone keeping particular species of fish. Our Species Control Officer is Steve Oliver. Please will you send him a list of the livebearer species that you currently keep. Steve's email address is:-

## steven.oliver63@yahoo.co.uk

Steve has a spreadsheet showing who keeps which fish, but it is incomplete and not up to date, so please, please send him your list so that we can have a more complete record of what BLA members have right now. Thanks.