

## Livebearer News

Official Members Magazine of the  
BRITISH LIVEBEARER ASSOCIATION



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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.

### Committee

**Chairman:** Paddy Davies

**Treasurer:** Don Kenwood;

**Editor:** Greg Roebuck,

**Events organiser:** Nigel Hunter

**Webmaster:** Alan Dunne

**Committee members:** Clive Walker; Carl Stewart,

## MY MISTAKE

Issue 48 of “*Livebearer News*” contained a report on the 7<sup>th</sup> Annual meeting of the Goodeid Working Group. This report, and all of the photographs that it contained, were by our new Chairman, Paddy Davies – and I didn’t credit him at all. My mistake. Apologies Paddy!

## EDITORIAL

This issue contains two articles by Alan Rothwell, which were sent to me on paper for me to type up. Thanks Alan. All articles gratefully received, by email or snail mail, at the address on Page 2.

An appeal: - The members of the BLA (and non-members who keep livebearers) have a very important role to play in the conservation of many species. PLEASE will you send details of the livebearers that you keep to Steven Oliver, our Species Control Officer, so that the BLA can keep records of which species are being kept and bred in Britain and we can try to co-ordinate our conservation efforts.

Subscriptions: - Subscriptions for 2017 were due in January, so if you have not already done so, please pay via Paypal and the new BLA website or send a cheque for £6 to Don, our treasurer.

Events: - The BLA is organising more events this year than previously. I will list these in a separate section, but it would be great if as many members as possible could come along and join us for these events. It would also be great to be able to put faces to names that I have only been in contact with via email. Hope to see you there!



Photo: Alan Rothwell

## Observations on breeding *Xiphophorus helleri* “Yucatan” by Alan Rothwell

I first acquired these fish at the last auction that the BLA held in Yorkshire, a couple of years ago Mr Ian Sinclair had brought some down from Scotland. At the end of the auction there were two bags of four young unsold. Rather than take them back he very kindly gave them to me – Thanks Ian!

At that time, I have to admit that I had not a clue what they looked like as adults as I had never seen a photo, or any adults live. Anyway, they are a very attractive swordtail, as you can see from the photo above, and they do not seem to grow as large as other strains of *helleri* that I keep.

On my return home they were put in an 18" x 12" x 12" tank to grow on. They are now in a 24" x 18" x 12" tank and I have

been successful [in breeding] these fish and have passed a few on. My water is hard and alkaline with a pH which varies from 7.0 to 7.4 depending on how much rain we have had. My fish house is set at 20°C or 68°F but gets warmer in the summer.

### **Reminiscing on a lifetime of fishkeeping**

By Alan Rothwell

Growing up, we had a two-foot tank in the house with a couple of crucian carp in it. When I was seventeen, a man I worked with asked me if I would like a tropical fish tank. It turned out that his wife wanted the room decorating and the tank had to go. So I became the owner of a two foot angle iron tank on an angle iron stand. In those days the glass was held in with putty – many years before all-glass tanks. I later acquired a three-foot tank with a slate bottom. So, there I was with my tank and of course my mollies and platties had young so

another tank went on the stand. Later on we had central heating put in so the coalhouse became my first fish-house. I bought a second-hand four foot tank and stand and the two two-foots went underneath in the coal house.

I bought a pair of blue acaras "*Aequidens pulcher*" which went in the four foot tank and promptly spawned for me, which began a twenty-year fascination with South American cichlids. I also joined the original catfish group when Terry and Doris Cruicshank were taking the stand round the Midlands. I went to the first open show in South London and so catfish and cichlids were what I kept.

At the time of the coalhouse-come-fishhouse, which would be

in my early twenties, my main love was fishing. So I had a shed to store my tackle but I became more interested in my fish – so a tank appeared in the shed and then another. I then built myself a six-foot stand with three rows in it, made out of angle iron, and every time I bought another tank I extended the electric cable with the plastic connectors which you buy. At this time, the fish club I was a member of had two electricians in it and they wanted to see my fish but they refused to go in until I went in and touched everything. I don't know why but maybe it is because I mentioned that after a period of heavy rain the lock on the outside of my shed was live! They said it was way and far out the worst example of bad wiring they had ever seen. Luckily, they fixed that for me. Over the years, I became a judge and a lecturer and later I was judging at an open show and some unusual livebearers were on show. At this time the only AOV livebearers available were humpback limias and blue limias. None of the judges at the show knew what they were. After the show I approached the owner of the fish to get further information and was invited back to see his fish house where I bought my first aov livebearers. I was also told about SLAG, the Southern Livebearers Aquatic Group, which I immediately joined. They had a Yorkshire group which held quarterly meeting which I went to. At one of these meetings I met Pat and Derek Lambert. Derek was giving a talk. The two of them invited me to visit if I was in London. I used to go to London for the catfish shows so the next time I went to see them and this began a lifetime friendship. When they started "Viviparous" I was a founder member and have now kept livebearers for more than thirty years.

Good fishkeeping, Alan Rothwell

## Lago de Opopeo Michoacan, Mexico

By Paddy Davies – Text and Photo's (Unless otherwise credited)

I was very privileged to visit Lago de Opopeo in November 2014 with members of the Goodeid Working Group.

I was interested to visit as this habitat is home to *Allotoca meeki* and I had previously had a population of *Goodea attripinnis* from this location.

The first three photos are of the spring itself:



Lago de Opopeo is a very important habitat to protect as it is one of the last refuges of the critically endangered *Allotoca*



*meekei*. It is a small spring that drains into a deep mountain lake, Lago de Zirahuén. *A.meekei* used to live in the lake itself but is now considered extinct here, only living in some of the tributaries draining into it



Area for Locals to do their washing  
Photo Credit E.Radax



Stream running from main spring  
Photo Credit E.Radax



Habitat of *A.meekei* Photo Credit  
E.Radax



Habitat of *A.meeki*  
Photo Credit E.Radax

## Threats to Lago de Opopeo:

Large Mouth bass from North America have been introduced into Opopeo as food fish, these have most likely wiped out goodeids from the actual spring, as well as *A.meeki* the spring was home to a population of *Goodea attripinnis* which cannot be found any more here – luckily this species is one of the few goodeids that is not considered to be threatened.

There are other threats as well as the locals use the spring to wash their cloths and cars, this has occurred for many years of course, but it only takes one serious pollution event to poison the water that flows into the streams where the

goodeids live.

Currently the *Allotoca* is still hanging on here and there are some captive stocks in Europe and the US, however this is a species that needs as much help as it can get.



*Allotoca meeki*

## “*Xenotoca eiseni*” - three species, not one

Many years ago I bought a pair of “Red-tailed livebearers” – “*Xenotoca eiseni*” at an auction. They were good-looking fish. The male was largely blue above, silver-white on the belly and with bright orange at the base of the caudal fin. They battered each other and any other fish that I put in with them. Any fry that were dropped were killed and I lost them before long without obtaining any fry. When I complained about them to a more experienced fish-keeper he told me that I should have bought the “golden saddle” variety as they behaved very differently. So when I got the chance I did – and they did behave very differently. Active but not aggressive, they did not attack their young and I ended up with so many that I could not give them away. At BLA meetings there were discussions about whether the different forms should be classed as different species – and now we have an answer from an expert.

Paddy and Don forwarded to me a research paper :- “Two new species of the genus *Xenotoca* **Hubbs and Turner**, 1939 (Teleostei, Goodeidae) from central-western Mexico”, by **Omar Dominguez-Dominguez, Dulce Maria Bernal-Zuñiga** and **Kyle R. Piller**, published in “**Zootaxa 4189**”.

The article begins with a few lines about Goodeids in Mexico, then explains that *Xenotoca eiseni* had been considered to be a widespread species along the Central Pacific drainages of Mexico, inhabiting six independent drainages.

The sub-family Goodeinae first evolved about 16 million years ago, and in the intervening time there have been many and

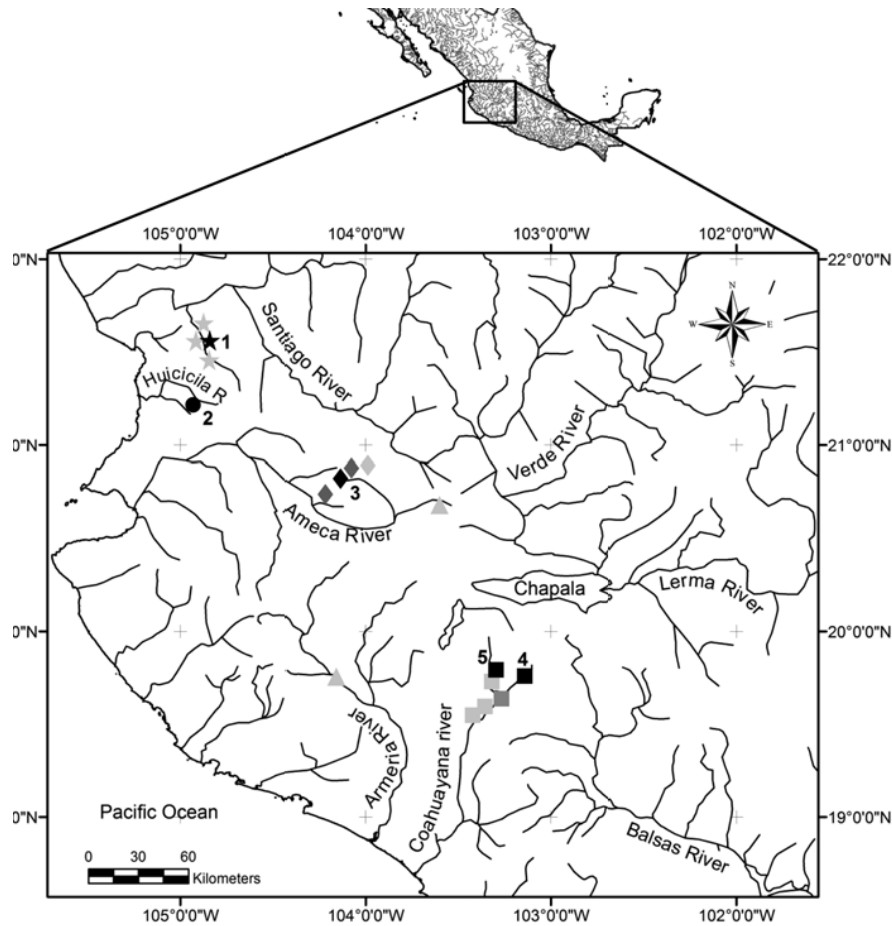
complex changes in the geology and climate in Mexico, which have resulted in the Goodeids evolving rapidly into many different forms with most species found only in a soecific drainage basin and several found only in a single water body. Recent molecular (i.e. DNA) studies have shown a high degree of genetic diversity between different populations of what had been considered to be a single species.

The genus *Xenotoca* was first identified by **Hubbs and Turner** (1939). *Xenotoca eiseni* was thought to be just a variety of *X. variata*, [N.B. I have kept both species and they look completely different to me] but DNA studies carried out in 2004 and 2010 showed that *Xenotoca variata* should be considered the only species of *Xenotoca* and a new genus is needed for *X. eiseni* and *X. melanosoma*. Recent studies found enough genetic differences between populations of *X. eiseni* to suggest that there are actually several different species.

*Xenotoca eiseni* is found in central Mexico in the upper part of the Coahuylana, Armeria, Huicicilia and Ameca river drainages, and in the Magdalena and Etzatlan endorheic basins [i.e. they have no outlet to the sea or other rivers] and in springs and small streams of the Santiago drainage, in the vicinity of Tepic City. The species is listed as endangered. It has disappeared from many of its former habitats and the entire populations of the Ameca and Armeria drainages have been extirpated by habitat degradation and the introduction of non-native species.

[See map on page 15]





**Dominguez-Dominguez** and his team looked at the morphometrics (i.e. size and shapes) and meristics (e.g.

details in the numbers of fin-rays and scales) to analyse the variations in the populations of *Xenotoca eiseni*. They used 15 males and 15 females of each population, measured the details from photographs and then analysed the results statistically.

I don't pretend to understand the statistical methods used but the results show that "*Xenotoca eiseni*" actually consists of three different species.





FIGURE 5. a) *Xenotoca doadrio*, Holotype male CPUM-9589 and female from San Sebastian b) *Xenotoca lyonsi*, Holotype male CPUM-9590 and female from Tamazula c) *Xenotoca eiseni*, male and female from Compostela population picture by Wolfgang Gessl [www.pisces.at](http://www.pisces.at)

N.B. The map on page 15 and the photos on page 16 are taken from the original paper issued in *Zootaxa*.

(a) *Xenotoca doadrio* is endemic to the endorheic region of Etzatlan, in the state of Jalisco. It has not been found in several of its original locations in the San Marcos area since 2006 and in an extensive survey in 2015 some of those were found to be totally dry or full of *Pseudoxiphophorus bimaculatus* when water was present. Conservation status :- It is recommended that *X. doadrio* be considered a species in danger of extinction. It is found only in small numbers in the three localities where it still occurs and all three of these are subjected to heavy water extraction for agriculture.

(b) *Xenotoca lyonsi*, **Dominguez-Dominguez, Bernal-Zuñiga, and Piller**

This species is endemic to the Coahuayana River drainage, being found in the middle and upper part of the drainage, in the Tuxpan and Tamazula rivers at altitudes above 1000 meters above sea level, in the state of Jalisco. *Xenotoca lyonsi* can no longer be found in most of its original locations. All of the areas where the species originally occurred are heavily affected by human activity. Sugar cane plantations take out large amounts of water and discharge polluted water. Also, untreated waste water from urban areas is a major problem.

Conservation status :- This species should be considered as in danger of extinction. It is found in low numbers in the few localities where it is still known to exist.

(c) *Xenotoca eiseni* :- The true *X. eiseni* is endemic to the lower part of the Santiago river and upper Huicicilia river. These two rivers are again highly impacted by agricultural activities and the expansion of urban areas and *X. eiseni* has disappeared from at least 40% of the areas where it had been known to exist. The "Type Locality" of the species [i.e. the site from which the first scientifically described specimens were obtained] was a spring called "El Sacristan". This is now covered by an apartment complex in the city of Tepic. As a result, *Xenotoca eiseni* should be considered to be critically endangered.

**Which genus?** According to the Goodeid Working Group website, *Xenotoca doadrio*, *X. lyonsi*, *X. eiseni* and *X. melanosoma* are all sufficiently different from the first described *Xenotoca*, *X. variata*, that a new genus name is needed. In addition, "*X. melanosoma*" is not just one species : a close relative "*X. cf melanosoma*" needs to be described. Also; *Xenotoca variata* is actually a species complex with at least one species undescribed.

**What does all this mean to us as fish-keepers?** The next section is just my opinion. I believe that fish-keepers have an important role to play in the conservation of these species. If we have a species in our tanks we should breed it and distribute fry as often as possible. Many fish-keepers show more skill and commitment in this respect than the big zoological institutions.

We should ensure that collection site data is passed on with fry or label fish as “aquarium strain”. Even if we do not know the collection site, we should continue to breed them and not allow the strain that we have to be “contaminated” by other strains. In future it might be possible to use DNA analysis to determine the species’ identity and re-release into the wild if Mexico’s many environmental problems are resolved. There is a discussion about the possible role of “Species Champions” to be had here.

**Thanks** to Omar Dominguez-Dominguez, Dulce Maria Bernal-Zuñiga and Kyle R. Piller for allowing me to use their paper as a basis for my article. Greg Roebuck

### Diary Dates

1. BLA Spring auction. **Saturday 15<sup>th</sup> April** at the Leicester Fish Show. The Fancy Guppy Association will also be attending. There will be lots of wild type and domesticated Livebearers available from many the top breeders in the UK. There will be a show run to FBAS rules, A Sales table with fish and shrimps/plants/equipment for sale....

hot food and drink will be available too through the day.

**Venue :-** The Whetstone Memorial Hall, High Street, Whetstone, Leicester, LE8 6LP

**Auction Start time** 12.30

2. The SLAG section of the BLA will be holding their show and auction in Basingstoke, probably on **9<sup>th</sup> July**, but I am waiting for final confirmation of details.

3. BLA Summer Auction on **Sunday 13<sup>th</sup> August** at **Tollgate Hotel and Leisure**, Ripon Rd, Blurton, **Stoke-on-Trent**, Staffs, ST3 3BS (01782 313302) Food and drink will be available on the day.

4. BLA Autumn Convention – see poster

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**BLA AUTUMN  
AUCTION  
& SHOW**

**7<sup>th</sup> & 8<sup>th</sup> October 2017**

**Holiday Inn Express, Rockingham Rd, Kettering**

*The Auction will be held on Sunday, further details on timings, hotel bookings, etc. will be released soon.*

*This get-together will be held in conjunction with FGUK show & Convention*

British Livebearer Association  
**B. L. A.**  
Est 2002

The poster features several illustrations of colorful fish, including a guppy, a platyfish, a swordtail, and a livebearer, set against a vibrant background of green and yellow.

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