

Livebearer News

Official Members Magazine of the
BRITISH LIVEBEARER ASSOCIATION



Issue 59

September

2019

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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

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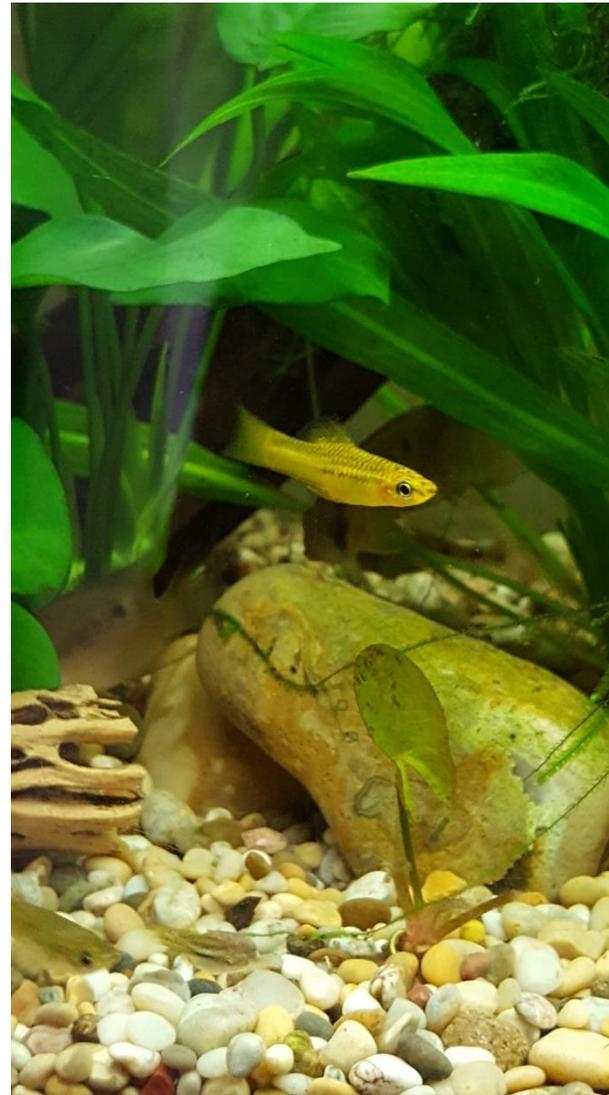
Editorial

The last BLA / Fancy Guppy UK event in the spring was a really friendly, relaxed and enjoyable event. Among the many topics that were discussed was the thorny question of how to euthanize a sick fish. I believe it is wrong to allow any animal to suffer needlessly, and a diseased fish can infect all the others in the tank, but how to put them out of their misery? There was a lively discussion back in March and now regular contributor to "Livebearer News", J. Sara Fulton has sent me her own thoughts and some information she found on the internet. My thanks to Sara for this and for the excellent photos of some of the fish in her tanks that she sent as well.

Thanks also to Steve Oliver for his articles about *Zoogoneticus tequila*. Thanks also to Steve Elliot; I have included another section of his article explaining how fancy guppies are judged. However, I don't have much left now for the next issue and so please send me anything you have about keeping or collecting livebearing fish.

Finally :- If you possibly can – Please print off the poster about the Autumn Convention on the last page and ask your local aquarium shop to display it. The more people that turn up the better.

Thanks,
Greg



Xiphophorus pygmaeus : photo by J. Sara Fulton



Xenophallus umbratilis; photos from J. Sara Fulton

Zoogoneticus tequila – The tequila

splitfin by Steve Oliver

This is the story of a fish known as the ‘tequila splitfin’ (*Zoogoneticus tequila*) who lived in the Río Teuchitlán in Jalisco, Mexico. The tequila splitfin is a member of the Goodeid family (known as splitfins due to the modified anal fins common to most males of the genus). The tequila splitfin was first discovered in 1955 by R.R. Miller, who unfortunately didn’t realise what he had found as the tequila splitfin lived alongside a similar looking species the Luz splitfin (*Zoogoneticus purhepechus*). The two types of fish being closely related can look very similar, so perhaps the mistake was understandable at the time. The identification problem was found out and the proper description was written in 1998. The common name of tequila splitfin was given in reference to the Tequila volcano which can be found north of Teuchitlán.

Things went badly wrong for the tequila splitfin with the introduction of invasive species such as tilapia and carp, these fish were intended to provide a food source for the local inhabitants but their introduction was their downfall of most of the native species. The tequila splitfin along with the other native fish were unable to compete with the newcomers and as a result the native populations went in to a sharp decline. The inevitable outcome was that early in the 1990’s the tequila splitfin was extinct in the wild.

Ivan Dibble, a member of the BLA, attended a symposium in Cuernavaca, a city in the state of Morelos, Mexico. Ivan was made aware of the problems the native fish faced, and how these problems were causing the disappearance of many species of fish from large areas of Mexico. Following the symposium Ivan was taken to an Aquatic Laboratory Facility in Morelia which was run by the University of Michoacán. The University offered to participate in a conservation project with the intent to preserve native Mexican fresh-water species.

Ivan returned to England, but not for long because two months later he returned to Mexico with two of the species of fish thought to be extinct in the wild, *Skiffia francesae* and *Zoogoneticus tequila* and these became the start of a breeding program with the aim to re-introduce fish back into the wild.

This project as with all conservation projects needed funding. The lab was unable to fund the project until Ivan contacted livebearer hobby groups throughout the world, asking for donations. The result was the beginning of the 'Hobbyist Aqua Lab Conservation Project' (Mexico) also more popularly known as 'Fish Ark Mexico'.



More information about Ivan's work for the conservation of *Z. tequila* and some of the other species from Rio Teuchitlán can be found at the following web address

<http://www.saudicaves.com/mx/ameca/index.htm>

Zoogoneticus tequila – The tequila splitfin

An ambitious project to re-introduce Tequila splitfins back into the wild was undertaken in 2015 by some key conservation groups. Below is a brief summary of the work carried out by the end of 2016, it includes the challenges they faced and the progress made.

The re-introduction of *Zoogoneticus tequila*

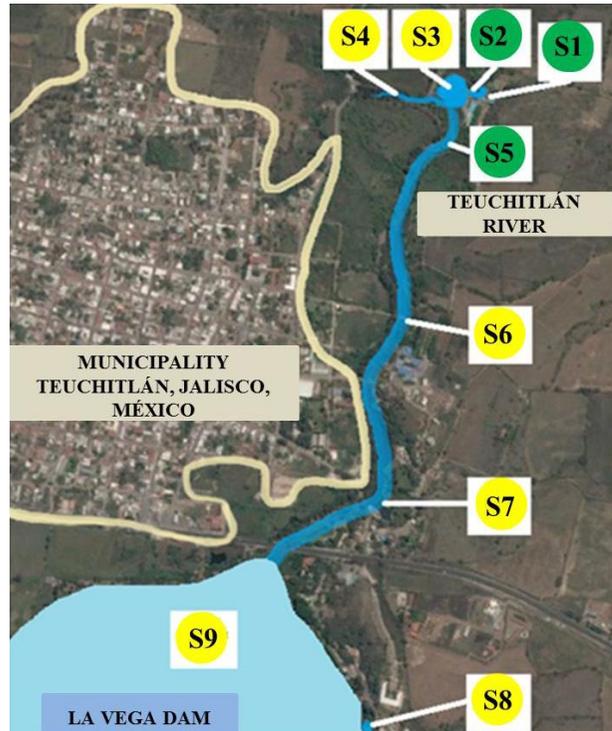
The re-introduction of the tequila splitfin was instigated by various organisations (including the Goodeid working group and Chester zoo) in partnership with the University of Morelia.

There are many obstacles to overcome when re-introducing a species, these include:-

- Is the water compatible/suitable for the species being re-introduced?
- Is the food they require in abundance and sustainable?
- Is there sufficient / correct type of plant life for them to live naturally?
- What are the dangers such as parasites, predators and changing water conditions?

- Are the local people willing to accept, learn and support the species being re-introduced?

When all of the above have answered then the best site for the re-introduction can be evaluated.



Nine sites on the Río Teuchitlán were selected and tested for water quality, suitability and pollution, of those nine sites three were found to be acceptable. These are the Springs La Alberca (S1) and Rincon (S2) the Section of the Rio Teuchitlán (S5) where the river itself begins.

● Acceptable water

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Is the water still compatible for the species being re-introduced?

Is the food they require in abundance and sustainable?

Planktonic microflora is the key to sustainable food in an aquatic ecosystem, planktonic microflora is essential for the optimal development of insect larvae, copepods, cladocerans as well as all the other primary consumers. Planktonic microflora is also as a food source for the endemic fish of the Río Teuchitlán.

The two springs La Alberca and Rincon were found to be low in planktonic microflora which means they would provide a low level of organisms. Whereas at the Canal Pumping site, the spring “Camarena” and De La Vega Dam were high in nutrients and organisms that they were susceptible to hypertrophy (Hypertrophy is where the water is so highly populated with nutrients and planktonic microflora that the water parameters for can oxygen, P.H. and pollutants can vary and even sedimentation can become a problem).

The Trough site and the Rio Teuchitlán itself had the best levels of planktonic microflora.

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Cladocerans

They are small aquatic animals that include daphnia and moina.



Is there sufficient / correct type of plant life for them to live naturally?



The two springs, La Alberca and Rincon were found to have no aquatic vegetation, the only source of shade and fish refuges were provided by the canopies and roots of the riparian trees on the banks.

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The other locations were found to have areas of floating plants (generally *Pista* sp.), and tall grass/rush type marsh plants 12

(generally Typha). Water hyacinths are found near the mouth of the river and on the reservoir.

What are the dangers such as parasites, predators and changing water conditions?

Parasites have been found in tequila splitfins living in semi-captive conditions, it has been found that the parasite density recorded from December through to May was zero, however in June that density rose to 20% and continued to increase up to 70% in July. It remained at this level until November where the density rate dropped to 40%. The parasites in the endemic fish populations showed parasitic infection all year round, the parasite density was recorded at 10% in January and remained at this level until March when the parasite density increased slightly and carried rising up to about 15% in June. The parasite density remained at this level until September when it increased again up to 25% in November. Following November the levels fell again through December until reaching its low point in January.

The relatively low levels of parasites indicate that the springs of the Rio Teuchitlán and associated bodies of water nearby are acceptable



Theatre presentation in Teuchitlán main square

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as a release area for the tequila splitfin (with regards to parasitic infection).

The parasitic populations increase when it is hot and humid and decrease when cooler and dry. It was recommended to reintroduce the tequila splitfin during the dry months of the year when the parasites populations are low to help avoid problems when starting the reintroductions.

Are the local people willing to learn about the species being re-introduced and support it/them?

The local people of all ages attended workshops on environmental education and awareness as well taking part in environmental activities. To help bring some ownership to the local people the Tequila splitfin became the symbol of the campaign. The campaign has programs to integrate the people in protecting the local aquifer and groundwater recharge areas, the awareness and growth of organic farming, along with the promotion of sewage treatment.

Mesocosm experiments

Mesocosms techniques for the introductions will take place at sites where it is believed that reintroduction of the tequila splitfin has the best chance. Mesocosms are relatively small netted-off areas of the Teuchitlán environment where natural circulation of water and movement of micro-organisms can take place but the density and composition of fish and larger animals can be restricted and manipulated for experimental purposes. During these experiments all aspects of the Tequila splitfins will be recorded along with all water conditions, parasitic population densities and reproduction success in this environment. The mesocosm experiments have been designed to avoid accidental releases of the tequila splitfins. The data obtained from these experiments will help us understand the

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potential success of the reintroduction of a native species into its original environment. It will also help us develop and implement long-term monitoring techniques for the local people.

References

Advances in the reintroduction of *Zoogoneticus tequila* in the springs of Teuchitlán, Jalisco, Mexico
By Universidad Michoacana team

This report is the basis for this article and all data and photographs are taken directly from it. The link to the full article can be found on the Goodeid working group website on the *Zoogoneticus tequila* page.

The Goodeid working group
<http://www.goodeidworkinggroup.com>

Euthanasia for your fish J Sara Fulton

This is a tricky subject to tackle, mainly in as much as we all have different opinions on whether or how we should do it at all.

I like to think that in my 40+ years of fishkeeping I know the signs of a fish on the road to non-recovery, and I certainly have no intention of allowing said victim to suffer a slow and possibly painful death, starving if it cannot eat (and fish can take quite a while to starve, imagine how you would feel), being picked on by tank mates because it is sluggish and cannot escape. Not to mention passing whatever pathogens etc...it may have on to your other fish (if you don't, like many of us, have room for a quarantine tank)

I am not however, saying that if an ailment is caught early enough that a fish cannot be saved, on the contrary, many diseases given the right treatment can be successful. It's those niggling things....and I think we've all been there, no real sign of anything to treat but the fish has stopped eating or it spits out food and appears to choke on it, its behaviour is odd and you're just at a loss for what to do.

In the past I've been a bit of a hypochondriac on behalf of my fish and I ended up trying all manner of treatments....none of which ultimately worked. Probably stressing the poor creatures out even more!

Well enough of that....I've discovered the clove oil method of putting my precious fish to sleep. It quite literally does just

that. Of course no-one really knows what's happening with the fish, but it appears to be a humane way of ending the suffering. There is no thrashing around in panic which you might expect by either bashing it on the head like anglers do, or cutting its head off! Yuck! And no thank you very much! I don't expect everyone to agree with this method, you may have your own system which works for you, this is my personal preference (of course I'd prefer not to do it at all!) I got the details of the clove oil method online for anyone who is interested, but I do hope it's not something you have to do too often.

Sara then sent me a link to an article describing how to euthanize a fish with clove oil :-

www.oscarfishlover.com/euthanise-your-oscar

Since I don't know the copyright situation I will paraphrase and add a few notes of my own.

Commercial bodies euthanize fish by anaesthetising them with an anaesthetic such as MS222 and then severing the spinal chord just behind the head. Of course, this has to be done quickly to avoid stressing the fish. Most of us cannot get hold of substances such as MS222 but we can get hold of clove oil. Boots, for example, sell a small pot for around £1.30. The following instructions show you how to euthanize a fish using clove oil. In order to use clove oil :-

1. First the fish must be taken out of its tank and transferred to a smaller container which can easily be cleaned or can be thrown away.

2. Add 3 drops of clove oil to half a pint of water and shake well, so the oil and water make an emulsion – if the oil just floats on top of the water the fish will not get the oil into its system.

3. Add the mixture to the water that the fish is in and stir it around slowly with your hand. The fish should become lethargic and sleepy.

4. Repeat the process with another 2 to 3 drops of oil in water. When the fish goes “belly up” it is asleep – not dead.

4. Then add 3 more drops of clove oil. The fish feels nothing, it is very peaceful and humane.

The whole process can take varying amounts of time, depending on the size of the fish, but can take from half an hour to a couple of hours. The thing to look for is gill movement – any gill movement means that the fish is not dead and more clove oil is needed.

The author of the article has strong views on other methods of killing fish, which echo the views I heard at the Spring meeting in Warwick . I.e. freezing fish, or putting them in very cold water is often thought to be a humane way of despatching fish. This is not the case; this is done purely to preserve the quality of the flash for eating.

Killing fish by flushing them down the lavatory, boiling or just leaving them out of water until they die is very inhumane. A person may be committing an offense if they cause the animal pain and distress prior to, or during the killing procedure.

Judging guppies to IKGH standards, Part 4, by Steve Elliot

2 GOLD Half of the dark pigment is missing, there are dark scale edges



Female GOLD



Triangle tail- GOLD – multi-Colour



Triangle tail – GOLD – lazuli



Top sword tail – GOLD – lace

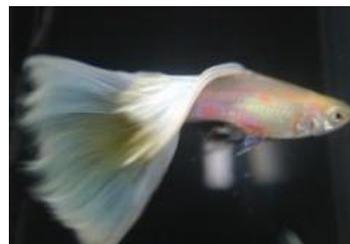
3 BLOND The dark pigment is almost completely missing; the melanophores are small and pointed.



Female BLOND



Top sword tail – BLOND – lace



Triangle tail – BLOND White



Triangle tail – BLOND Lace

4 BLUE Yellow and red pigment are missing



Female BLUE



Head of BLUE base colour



Triangle tail – BLUE – half black blue



Triangle tail – blue – lazuli

5 PINK Dark pigment in clear lines, clear (rose) at the back of the upper body.



Female PINK



Base of tail – PINK



Round tail – PINK – moscow



Triangle tail – PINK – half black Yellow

Diary dates

1. The autumn convention takes place on Saturday 5th and Sunday 6th October at the IBM offices in Warwick [CV34 5AH].

The Offices are just off the A46 and only 5 minutes drive from the M40. They are an excellent location and the events held there last year and earlier this year were hugely successful. Join us on either or both days if you possibly can. I will email out more details in the week before the event. Premier Inn Warwick is just 100 yards away and there are other hotels in the area if you decide to come to both days and want to stay the night.

2. Sheaf Valley Aquarist Society
 Summer Open Show and Auction
 Sunday 29th September
 The Rockingham Centre,
 Sheffield Road,
 Hoyland Common, Barnsley,
 S74 0PY

Doors open and lots booked in from 11.00am
 Auction starts 1.00pm prompt
 For more information or to book an auction lot please contact :-

The Show & Auction Secretary at :-
SVASShowSec@gmail.com

Preston & District Aquarist Society Auction
 Sunday 13th October
 Leyland & Farrington Social Club,
 1 Derby St., Leyland
 PR25 4NU






British Livebearer Association & Fancy Guppies UK

Goodeid Show Saturday 5th & Sunday 6th October 2019

The BLA and Fancy Guppies UK autumn shows and auctions are to held at IBM Warwick

WE NEED YOUR



GOODEIDS

We need you to enter your Goodeids and show us just how good they are.
 This is a fun event and open to all levels of fish keeper from the very experienced to the novice. The best three entrants in each category will receive a prize. (The two categories are single fish and pairs). We will have a number of spare show tanks available for those who haven't got them. New hobbyists will be able to see what showing fish is all about and pick up tips on keeping these fantastic fish.






For further details of our autumn shows please contact Bill (BILLG@uk.ibm.com) or Steve (steven.oliver63@yahoo.co.uk)

www.Britishlivebearerassociation www.fancyguppies.co.uk

Find us on 