Livebearer News

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Editorial

Welcome to Issue 53 of “Livebearer News” I would like to take this opportunity to wish you all the best for 2018. I have recently been made aware of a possible threat to our hobby. Apparently, various lobbying groups within the EU, are promoting animal welfare under the banner “Vote4animals”. I have not found any calls for fish-keeping to be restricted but there are concerns that some groups want the species that can legally be kept to be restricted to an “allowed list” . Such an “allowed list” would very likely not include many of the wild-type livebearers currently kept by members of the BLA. If we continued to keep, breed or sell species that were not on the list we would be breaking the law. Also, species such as *Skiffia* “V188 sayula”, which as far as I know have not been scientifically described, would almost certainly not be on the “allowed list”. This is despite the fact that this species (and several other Goodeids) is extinct in the wild and would be in danger of going completely extinct if it were not being kept in captivity by hobbyists (including me). So what can we do? Well, for now, maybe not a lot. However, a meeting took place on 7th Feb between representatives of various hobbyist groups, OATA and DEFRA. Our Chairman, Paddy, and BLA members Dr Peter Burgess and Bill Galbally attended the meeting and I have included Dr Burgess’ report on the

meeting below. We await further developments but may need to get writing letters in order to protect our hobby and the endangered species that we keep and breed.

OATA meeting with the specialist hobby societies

Peter Burgess

Representatives of several aquarium societies gathered in London on 7 February 2018 to meet with OATA (Ornamental Aquatic Trade Association) and DEFRA (the government’s Department for Environment and Rural Affairs). This was the second meeting between the trade and hobby, thanks to the initiative of OATA’s Chief Executive, Dominic Whitmee.

Two issues on the agenda were particularly relevant to our fishkeeping hobby and shows:

1) **Animals Activities Licensing.** DEFRA are drafting new regulations regarding “pet vending” which will cover not just pet stores but also the sale of pets (including fish) at shows and exhibitions. There are fears that if the new legislation is not carefully worded or lacks clarity, then hobbyists may fall within its scope and would need a licence in order to sell fish at shows. Clearly, this would seriously affect our captive breeding programmes as we would not be allowed to sell surplus stock without going through the rigmarole and expense of obtaining a licence. Fortunately, we had a rare

opportunity to express such concerns to DEFRA representatives at the meeting, to ensure that *bona fide* hobbyists and hobby society shows are not captured by these new regulations. Also discussed was concerns regarding temporary licenses for koi shows (enabling professional koi traders to sell fish at these shows).

2) **EU Invasive Alien Species Regulations.** As part of its Risk Assessment of alien fishes, Spain raised concerns that *Channa* snakeheads could establish in its waters, which could pave the way for a Europe-wide ban on all *Channa* species. Clearly, such as ban would be disastrous for snakehead enthusiasts (Chris and Kevin Webb of the Anabantoid Association of GB were at the meeting and put forward a good case against a general ban on all *Channa* spp.). However, it seems we have a slight reprieve, as the EU has now decided to review the whole risk assessment process, such that no changes in legislation will occur in 2018. In any case, we were assured that any future ban would be species-specific and not a blanket ban at genus level. Hence snakeheads (apart from the northern snakehead, *Channa argus,* which is already banned from sale in the UK) will hopefully be spared from any future import bans – but we fishkeepers need to remain vigilant as politics and common-sense science do not always go together. To take a live-bearing fish example, bear in mind that *Gambusia affinis* has established in Spain and elsewhere, and consider the consequences of a EU-wide ban on all *Gambusia* species.

Among other points raised at the meeting was the recent MINTEL report which suggested a decline in the fishkeeping hobby(the number of households keeping fish falling from 17% in 2012 to 10% in 2017). OATA had not yet obtained a copy of the report (largely because itsells for an eye-watering £1995 plus tax!) so the depth and breadth of the survey could not be scrutinised.Interestingly,the Pet Food Manufacturer's Association (PFMA) conducted its own survey in 2017 and found that 7% households kept aquarium fish and 4% kept pond fish. Given these two categories (pond versus aquarium) are not mutually exclusive, thenPFMA's data roughly equates with that of MINTEL for 2017.

On a more upbeat note, OATA has been asked to participate in a Freshwater Fisheries Conservation group. This is a new venture looking at sustainable freshwater fisheries and involves major global conservation bodies such as the WWF. At the meeting, two hobbyists put their names forward to join this initiative, ensuring that our fishkeeping hobby will play a part in shaping this exciting new project. As we know, freshwater fish stocks need all the help they can get, bearing in mind that around 30% of freshwater fish species that have so far been assessed for the IUCN Red List (2013) are threatened with extinction*.

It was inspiring to see so many hobby societies represented at the meeting, including the Anabantoid Association of GB, British Killifish Association, British Koi Keeping Association, British Cichlid Association, Fancy Guppies UK (represented by Bill Galbally) and of course the BLA and Goodeid Working

Group (both represented by Paddy Davies).

A third meeting is scheduled for Summer 2018.

*Source: G.P Closs*et al* (eds). (2016). *Conservation of Freshwater Fishes.*Cambridge University Press.

Global warming and the consequences for a Goodeid

By Kees de Jong

The number of species that emerge outside their natural range has increased in recent years and has profound consequences for the original inhabitants.

The species introduced are a threat to the species originally present. The problem of invasives is all over the world and the species are almost always spread by humanity. This article deals with fish species in Mexico, but in the Netherlands, the introduction of fish is also an issue. An example of these are the different types of goby that are able to swim and stay in the Netherlands through the construction of channels. The conditions in our country are excellent for these species and

predators are missing, although relatively small fish, they pose a threat to native species.

During my travels to Mexico, I come across various types of introduced species. Often, African tilapia (cichlids), which have been deployed by the government as a source of protein for residents in large parts of Mexico have spread throughout the country. In addition, North American sunfish are deployed because they are seen as a prime sport fish. Released aquarium fish, such as platys and red swordtails, also occur in many places in Mexico. A more recent newcomer is the armoured catfish of the genus Plecostomus, which has traveled at a huge pace from the south to the north, and as egg eater has a lot of impact on the species present.
Transport of all kinds for various reasons also causes unintentional introductions of species from other parts of Mexico.
The invasive species can have a different impact on the species present. The main impact is:
Food competition;
Introducing new fish diseases;
Changing the biotope;
Or a combination of the above.

One of the species found in Mexico far beyond its original range is the *Pseudoxiphophorus bimaculatus* (Heckel, 1848). This species is found in the highlands of Mexico today. Originally, they come from the lower coastal region with higher water temperatures. Despite the lower temperatures, P. bimaculatus is able to maintain itself in the highlands, thus creating an additional threat to the already endangered goodeids from this area. It seems that this species are deployed by the government because of their preference for eating mosquito larvae. Distribution by aquarium lovers is unlikely in this species because it is not really an attractive aquarium fish.

Ramírez Carrillo & Macías Garcia (2015) investigated the effects of the introduction of the above-mentioned species on *Girardinichthys multiradiatus* (Meek, 1904). They investigated two locations in central Mexico. The first was the Zempoala lake near Mexico City. This lake is 2,800 meters high and has an area of around 11 ha (depending on the season) and an average depth of 8 meters. In this lake *P. bimaculatus* was introduced in 1996 and it is also a biotope of *G. multiradiatus*. As a comparison, Tonatiahua was used, this lake is more than 200 meters away at the same height. Here, *G. multiradiatus*

also occurs and *P. bimaculatus* is not introduced. In both lakes, both rainbow salmon (*Oncorhynchus mykiss*) and the carp (*Cyprinus carpio*) were introduced years ago.

For a year, a sample was taken in both lakes in different places. Since both *P. bimaculatus* and *G. multiradiatus* live in water less than a meter deep, they are easy to catch. All trapped fish were identified, measured and the sex was determined. Also, environmental factors including temperature were recorded.
In order to get a more detailed picture of the influence of temperature on the species, laboratory experiments were also conducted, which allowed the temperature to be checked.

The idea of the researchers was that at a higher temperature P. bimaculatus would do better than G. multiradiatus. At a lower temperature, the reverse is true because G. multiradiatus lives naturally at a lower temperature.

The research confirmed the above hypothesis. The population that cohabits with the *P. bimaculatus* breeds at a lower temperature in the year, before this invasive P. bimaculatus from the warmer area becomes active and has many

descendants. Since the adult P. bimaculatus is also fryeaters, the babies born during the cooler period also has a great chance of escaping.

In Tonatiahua, where this competition is not present, the reproductive season for *G. multiradiatus* begins later in the year at higher temperatures. This population has a longer period of propagation than the population with introduced competition.

During the warmer months, the number of *G. multiradiatus* in the area in which they live together with *P. bimaculatus* was significantly lower than in the area where they did not have competition. This influence is also visible in the young animals present. They are born earlier and the number decreases significantly in the warmer period during which *P. bimaculatus* can reproduce and be more active.

It appears that the introduction of a new species may have a major impact on a species present. This species has to adapt and find a good moment to reproduce. In the example above, do this a cooler period, as the invasive species is too dominant during the warmer period. The introduction of a new species is thus a threat to an original species and global

warming is the reason that the balance is even more about the invasive species. The period in which this dominant can be increases then increases and the chances of the original species deteriorate. This has less time to reproduce and therefore does not have the opportunity to get enough offspring to continue in addition to the invasive species.
If an increase in temperature increases the chances of invasive species and those of a threatened species such as the goodeid Girardinichthys multiradiatus, this can die out,

Literature

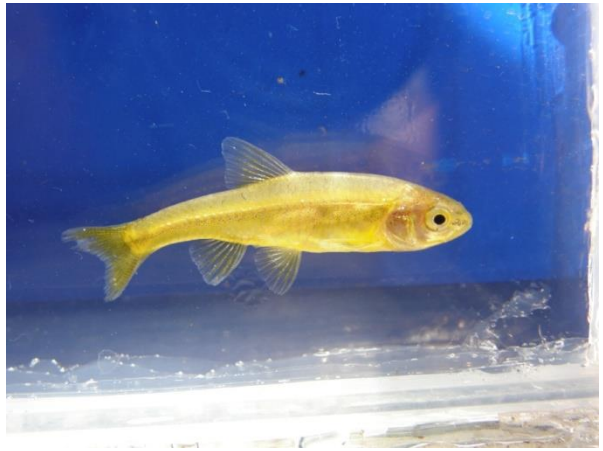
http://www.visstandbeheercommissie.nl/actueel/299/grondels--ongewenste-nieuwkomers.html
http://www.feedertotaal.nl/grondels/
E. Ramírez Carrillo & C. Macías Garcia (2015) Limited options for native goodeid fish simultaneously confronted with climate change and biological invasions. Biol Invasions 17: 245-251

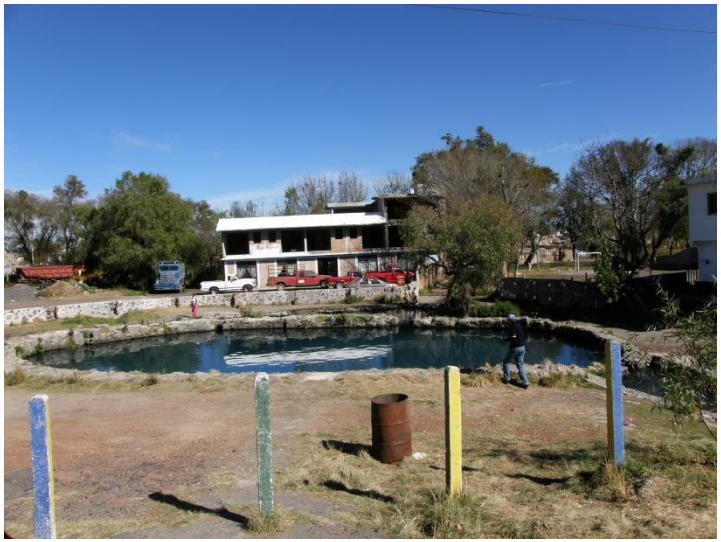
Caption photo Maravatio.

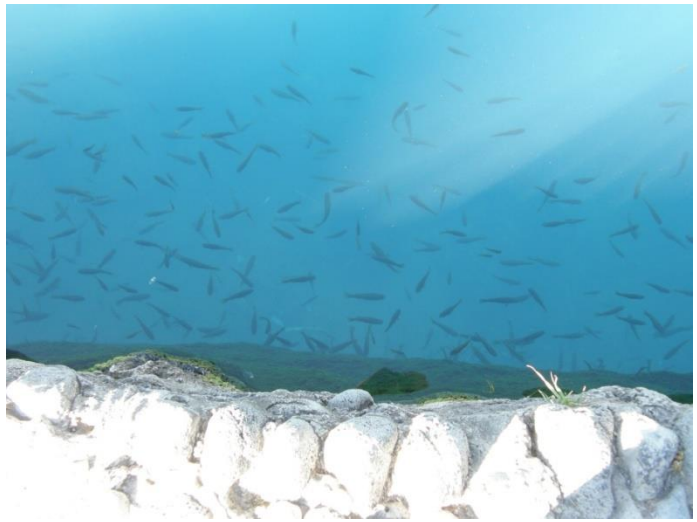
This source in the western Mexico region of Maravatio had for many years been a large population of *Girardinichthys multiradiatus*. However, the amount of invasive species has increased dramatically over the years. In 2014, we collected four introduced species, including *P. bimaculatus*. There were only a few

individuals of *G. multiradiatus*. The *Notropis marhabatiensis* described in 2009 of this location was even no longer present. The goodeid *Goodea atripinnis* still managed to survive despite the invasive species.

Caption card (from Ramírez Carrillo & Macías Garcia (2015) The original distribution area of P. bimaculatus (dark line) is much lower than that of G. multiradiatus (gray line in inserted graph. G. multiradiatus occurs only in central Mexico The lowest location is 1,300 meters higher than the highest of P. bimaculatus. The original range of both species is separated by the high mountains of central Mexico







Xiphophorus continens

(Zimmerer and Kallman 1988)

Etymology:

Xiphophorus: Greek, xiphos = sword + Greek, pherein = to carry

*Continens:*Greek, conto = short + Latin, ensis, = sword

(Reference to the very small sword developed in males of this species.)

First description:

Zimmerer and Kallman 1988

American Museum Novitates Number 2975, June 27, 1990.

Monophyly and Geography of the Rio PanucoBasin Swordtails (Genus *Xiphophorus*) with

Descriptions of Four New Species

Mary Rauchenberger, Klaus D. Kallmanand Donald C. Morizot

Common names

El Quince Swordtail; Short sword platyfish

Synonyms

Xiphophorus sp. Nov. Zimmer & Kallman 1988.

Group:

Xiphophorus continens is one of nine northern swordtails and belongs to the Montezumae clade, consisting of *X. montezumae, X. nezahualcoyotl, X. continens*

Type Locality:

The Nacimiento of the Rio OjoFrio at El Quince, north ofRascon, Rio Gallinas-Rio Panuco drainage, San Luis Potosi, Mexico

Collected onApril 27, 1984, by K. D. Kallman and D. C.Morizo

Distribution:

Headwaters of the Rio Ojo Frio, north of Damian Carmona, Rio Panuco drainage, San Luis Potosi. Mexico

Populations:

Rio Ojo Frio, El Quince, San Luis Potosi. Mexico.

Habitat:

Fast flowing river, with high aquatic vegetation with a stony river bed.

Size:

Males 2.5cm, Females 3.5cm

Distinguishing characteristics:

It is a small, slender species, with a slender caudal peduncle. The sword is barely noticeable with a maximum length of 1 millimetre

Colour/Pattern Variability:

A small slender species, the body colour is pale golden brown with a darker brown midlateralstripe. There are oneor two less prominent zigzag stripes abovethe midlateral stripe. The underneath section is white from the mouth to the anal fin.

The dorsal and caudal fins are clear to pale yellow, all other fins are clear.

Males do not develop a sword greater than 1 mm.

Behaviour:

Not a shy fish when settled, will happily swim around the front of the aquarium looking for food.

Husbandry:

A well planted aquarium with a temperature of 21 – 22 degrees C

Breeding Notes:

After a gestation period of 24-28 days, female produces 10 to 20 young,

Remarks

The overall shape and appearance of this speciesis mostsimilar to *X. pygmaeus* and was assumed to be closely related. Closer scrutiny has found that *X. continens* shares characteristics found in *X. montezumae* and *X. nezahualcoyotl*.

References:

American Museum Novitates Number 2975, June 27, 1990.

Monophyly and Geography of the Rio PanucoBasin Swordtails (Genus *Xiphophorus*) with

Descriptions of Four New Species **Rauchenberger, Kallman & Morizot**

Platies and swordtails **Derek and Pat Lambert**

Fishbase

Wikipedia

Article by Steve Oliver

Photograph courtesy of Dave Macallister

Micropoecilia Picta aka ***Swamp Guppy*** by Sara Fulton

My introduction to fishkeeping began when I was around ten years old.... I was fascinated by my Grandad's fish tank whenever we went to visit,and I completely fell in love with Guppies! Obviously over the next forty plus years I've kept many different species.....but I still believe that you always

have a soft spot for your first fish, that's why I'd like to talk about these delightful little fish!

Can I start by assuming everyone has at one time or other, kept Guppies? Well, these little guys, and I'll call them ‘Swampies’, are a seriously close relative of our lovely Guppy- right down to their body shape (albeit somewhat smaller), diet, behaviour....and cute little noses!

I discovered these while randomly browsing the internet for unusual species of livebearers. The picture I saw of the males blew me away! Such stunning shades of red, orange and black complete with a little black and white dorsal fin!

My first purchase of two pairs was disappointing...the females were very skinny and no amount of ‘TLC’(Tender Loving Care) and tasty titbits could save them. The males on the other hand were a totally different kettle of.....well, you get my drift. They were (and still are) in fine shape, displaying to eachother, eager for food, and generally happy in their world!

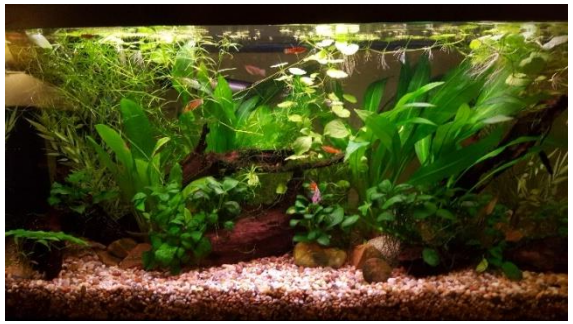
A few weeks later I got another two pairs, the females this time were in good condition and lucky for me, already pregnant. I counted eight fry before I went away for Christmas week, but decided to let them fend for themselves- thinking if any were still there when I returned then I could start to take extra care of them then. With a good friend and fellow fish keeper coming in to feed and water change, two fry survived. I moved the adults to a 75L heavily planted tank and added another two pairs.

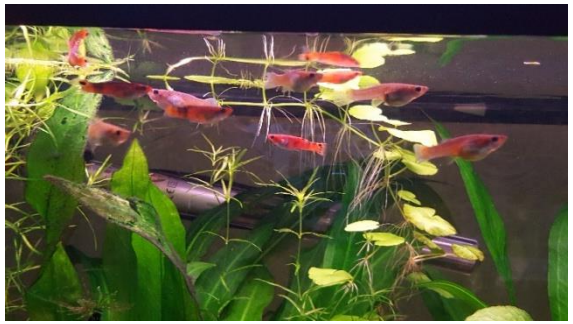
I now have eight Swampie fry sharing (a 30L) with seven *Limia nigrofasciata* (Humpback Limia) fry. I feed these guys with First Bites, crushed spirulina flakes, shelled peas, plus they get plenty of microscopic critters from the Java moss I grow in their tank.

I have eleven adult Swampies now and they make for an impressive sight in their aquarium amongst all the lush green of the flora! They do like it warm though.... I keep mine at around 78°f.

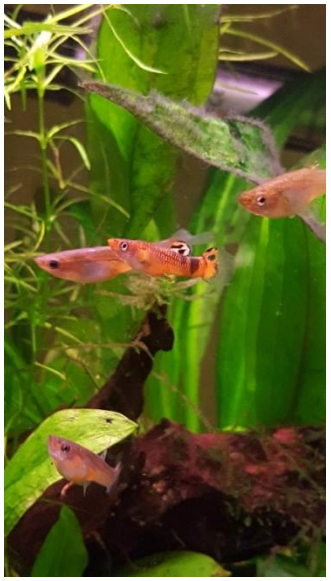
One thing to mention regarding Swampies is that many online sites advocate brackish conditions for this fish to thrive at its

best. Whilst this may be true (and the same has been said of the Guppy and other such livebearers), so far, in my experience this has proved not to be an issue. I expect time will tell.





It's early days for me keeping Swampies so I am by no means an authority, I can only say what works for me in my own experience. Anything else that warrants a mention regarding these *Guys*.....(and if Greg doesn't mind) then watch this space!



Wanted

BLA member John Benson is still trying to track down the following species :-
Brachyraphis holdridgei;
Carlhubbsia stuarti;
Priapella olmecae;
Xiphophorus birchmanni.
If anyone out there has these species and are willing to trade some to John, please get in touch with him

Thanks.