Journal of the Catfish Study Group

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Contents

Cover image: *Otothyropsis piribebuy* spawning embrace. Photo: Steven Chester

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Editor's report

Hello all! First of all, welcome all new subscribers if this is the first issue of our journal you have received. Thanks for your support, and thanks also to those of you continuing your subscription or adding a digital subscription to your print edition. ALL the money we receive though digital subscription goes directly into our NEW Research Support Fund and we are already putting your money to good use in supporting two young catfish researchers in Argentina (see articles by Felipe Alonso and me in this issue).

In addition to Felipe's report on the threats faced by a stunning cory in NW Argentina, I was delighted to receive original articles from regular contributor and Admin of the Catfishes of The World Facebook group, Steve Grant, and hobbyist-turned-professional-aquarist Steven Chester (Chester Zoo Aquarium).

Through his Facebook group, Steve has a direct line to all the catfish-related news on social media, and an interesting observation made before Christmas is detailed in his article about algal growth on banjo catfishes! Steven Chester makes fish breeding look easy; his article on a captive spawning of a hypoptopomatine is a comprehensive account of the behaviour and subsequent performance of the eggs and fry in his tanks.

I've provided a report on the recent convention that I attended vicariously thanks to Mark's regular posts on social media; a poor substitute for the organic experience, but I'll take what I can get. Also, I've described how the Finns run fish auctions, and it's as brutal and unforgiving as the winter weather.

As always, if you would like to contribute to our journal or have any comments or a suggestion for future issues, please drop me a line on editor@catfishstudygroup.org.

Best, Michael

Chairman's report

Just time before the Journal is completed for me to squeeze in a Chairman's report that's as up-to-date as they come!

The committee is now basking in the warm afterglow of another Convention successfully delivered without any fuss, casualties or arrests. We now have an awesome team of unbelievably hardworking people who organise and serve what I believe is one of the best aquarium events of the year - although I freely admit to being slightly biased.

While mingling with delegates over the convention weekend, I overheard them say overwhelmingly positive things about the 2018 Convention; 'the best I have attended', the 'most friendly convention I've been to' and 'the best line up of speakers I have ever seen'. Everybody took some positives away and for me it was the new friends, smiling faces and constant catfish discussion and banter that went on from breakfast to well into the night!

Our line-up of new speakers stole the show, with exciting new revelations not heard of in the aquarist world before. Speakers were all impressed with the knowledge held by CSG members and their attention and understanding of technical topics! They were also blown away by the selection of fish in the Convention hall and at our sponsor retailers – I think most of the speakers have spent too long breathing formalin fumes and poring over specimens to realise there's more of us out here that love catfishes too!

We introduced new sponsors to the convention and the effort made to display their products, livestock and services was outstanding! They have all reserved their space for next year's event, which is testament to the great experience they have had! We still have room for a few more traders, so please get in touch if you would like to join in.

After the last few weeks of late nights and frantic phone calls, our committee is enjoying some well-deserved time off from the business side of what we do. But rest assured, we all enjoy designing and organising the convention and trying to improve the experience for delegates and speakers each year. Next year will be our 40th anniversary convention, so we hope to come up with something extra special! Thanks again to everyone who took part, and if you've never attended before, please make a note on your calendar and come to the 2019 convention on 15-17th March 2019.

Finally, thanks to our hardworking Editor Michael Hardman, who sadly had to miss the Convention he had done so much to help pull together. Michael's friends and contacts in the research community have helped us secure some of the most eminent scientists working with catfishes and his skills preparing promotional materials and other documents were evident throughout. I am pleased to report that Michael is on the road to recovery and I look forward to seeing him next year!

Cheers, Mark

A captive spawning account of *Otothyropsis piribebuy* (Loricariidae: Hypoptopomatine).

By Steven Chester

Otothyropsis piribebuy resting on an oak branch. Photo: Steven Chester

I consider myself an all-round fish breeder, over the years I have specialised in the husbandry, maintenance and breeding of dwarf cichlids and characins, however I have also bred numerous other groups of fish including plenty of the Corydoradinae. These were however my only experience with catfishes and during the early months of 2017 I planned to expand my experience with other genus of catfish and set out with the aim of maintaining and hopefully spawning either an *Otocinclus* species or a species of whiptail catfish, I was not fussed which and it was more a case of which came my way first!

During the spring Preston and District Aquarist Society auction I chanced upon a fish simply labeled as 'Black Ottos'. I took a chance and bought ten individuals. These were newly-imported wild fish, a good size but in average condition, they would need some work to condition them for breeding but I already had a plan in place. Firstly, I needed to know what species I had and to find some details on their habitat, range and preferred parameters. My first port of call was my bookshelf and armed with the Baensch Catfish Atlas, a back catalogue of the Catfish Study Group journal (known as CatChat in the early 2000s) and also several other older books on catfish. It quickly became apparent that my 'Black Ottos' were not written about, the closest match I found was either a *Hisonotus* species or the fish known as LG2 which had a trade name of *Otocinclus* 'negros' this sounded promising and an on-line contact via social media put me onto the name *Otothyropsis piribebuy*.

From then on, the information came thick and fast, an online search found the scientific description of the species, from there I learned that the type locality of this recently-described (Calgary, Lehmann & Reis, 2011) species was the Rio Piribebuy, a smaller tributary of the Rio Manduvira which in turn feeds into the Rio Paraguay. Using the town of Eusebio Ayala which is located nearby I could access climate data online and establish temperature fluctuations and seasonal changes which may help me with the maintenance and breeding of this species. As I said earlier, I was already planning on acquiring a species of either *Otocinclus* or a whiptail catfish of some kind, and had made some tanks available for the purpose. The tank in question is one of the larger tanks in my fishroom; I have four tanks measuring 40x24x18" high and holding around 250 L each, they are connected together on a system utilising a sump of approximately 500 L.

Female beginning to show signs of maturity and spawning condition in aquarium containing lush algal growth. Photo: Steven Chester.

This system of 1500 L is served by a large biological filter provides very stable water quality and parameters. The water source to my home comes from the Welsh mountains and is very pure rainwater which runs from inert slate mountains and is pumped directly to my home in Cheshire, England. The water from my tap averages pH 7 and a conductivity of 50-75 µs/cm, KH and GH both barely measure 1 degrees, it is ran through a sediment and carbon filter (HMA) and stored in a large 700 L vat where it is warmed to 26 °C before use. The low conductivity of my water usually sees the pH drop to around 6 once it has been in my tanks for a week or so due to the low buffering capacity.

The tank reserved for the *Otothyropsis* was an upper tank at eye level and had not been cleaned of algae for quite a while in anticipation of the intended inhabitants. Visibility into the tank was restricted by a growth of soft green algae and all panes were similar coated. The fish were added as the sole inhabitants of the tank and were given some oak branches to rest and graze on, these branches were collected from the ground underneath an oak tree in a rural setting, they were dry and took several days to soak and sink. A point worth noting is that they were covered with lichen, and it proved to be an excellent food source for the *Otothyropsis*! As an alternate food source, I also offered a few slices of cucumber weighed down with aquarium lead.

Only 24 hours after purchase and acclimation of the new fish my choices of food items were proven to be correct, the *Otothyropsis* had an insatiable appetite for the algae in the tank, considering the low numbers in such a large tank I was shocked at how quickly the fish cleaned the tank of algae - within 48 hours every glass panel in the 40x24x18 aquarium was spotless, they had devoured two slices of cucumber and appeared to be searching constantly for food, the added oak branches provided not only a resting place but also a secondary food source, the wood started to develop mould after several days submerged, the lichen also started to soften and the *Otothyropsis* obviously delighted in rasping this nutritious treat from all surfaces they could reach.

Water changes were performed weekly with the 500 L sump draining to waste and then being re-filled with clean water of the parameters mentioned earlier, the fish began to show signs of sexing. Females were obviously ripening and coming into breeding condition; the size difference of the males and females was staggering - the females were twice as wide as the much slimmer males. After two weeks of conditioning, I decided to set up a dedicated spawning tank for these fish and to try and induce a spawn, the date was 23/04/17.

Female in prime spawning condition. Photo: Steven Chester.

The breeding tank measured 24x13x10" I have 36 of these 40 L tanks and they house all the smaller species that I am intending to spawn

Female (lower left) and male (upper right), showing clear difference in body width and overall size as spawning condition improves. Photo: Steven Chester.

The tank was cleaned and a thin layer of sand added, several fresh oak branches were placed into the tank, these were snapped to make a tight fit and ran across the tank from the upper to lower corners, close to the substrate, a couple of large red oak leaves were added. The tank was filled with freshwater with parameters of pH 7, conductivity 60 µs/cm, Temp 26 °C, filtration was a weighted sponge filter and a small 10W powerhead was added. It was hoped that the freshwater and increased movement would be enough to trigger a spawning in this species. The fish were added late at night after a quick acclimation and the fish room lights were turned off to allow them to settle.

My daily routine is to spend an hour or so feeding and observing my fish before work so my alarm is set for 6 am, I leave for work at 7.15am so I generally have an hour to feed my fish and do any other small jobs before leaving for work. New projects are amongst the first to be checked out and on the morning of 24/04/17, I headed straight for the *Otothyropsis* tank, mainly to check that they had settled ok, I wasn't expecting breeding behaviour so soon but the fish proved me wrong! I immediately noticed eggs on the front pane and to my delight saw almost all of the ten inhabitants active within the tank; they were fast and agile and similar in mating behaviour to *Corydoras*. It seemed that the males were hunting females and coaxing them to spawn. Several times I witnessed a male approach a female, where he worked his way in front of her whilst still attached to the front glass using his mouth, he then bent his body into a U shape and offered himself to the female who was situated below him, the female would swim up

Spawning embrace of *Otothyropsis piribebuy*. Non-spawning male (left), spawning female (centre) and spawning male (curved, right). Note the release of a single egg (ca. 2mm) during the embrace. Photo: Steven Chester.

Eggs beginning to hatch after 36–48h in the spawning aquarium. Photo: Steven Chester.

into the curve of the males body, a few seconds later a single egg was laid on the glass and chasing activity started again, it was difficult to observe if all fish were involved in spawning. I witnessed two females spawn in separate locations but could not say that all ten were involved despite all were actively swimming throughout the tank. The eggs were fairly large at around 2 mm and, also similar to many corys, were placed throughout the tank. The front pane was the preferred site but I could also observe eggs laid on the wood, leaves and also the plastic weighted base of the sponge filter. I estimated around 60-70 eggs and their development could be seen with the naked eye within eight hours, and 36-48 hours after spawning the fry hatched and continued absorbing the yolk sac for the next few days. By day five (29/04/2017), the fry were developed enough to search for their first foods, this was supplied in the form of newly hatched artemia, powdered fry food and also the natural fauna on the wood and leaves. The fry grow rapidly and were perfect miniature replicas of their parents within a month or so.

The *Otothyropsis* proved to be extremely easy to breed, after the initial excitement of the first spawn it became a daily occurrence to see spawning behaviour and eggs at various stages of development. The tank quickly filled with fry of all ages and at the age of 12 weeks the oldest fish were large enough to remove and move onto new homes. I would highly recommend this interesting species, for me they were extremely easy to maintain and condition for breeding, the reproduction of this species is almost trouble free and the offspring grow quickly without any major obstacles in feeding. The fish were distributed within my local fish club and I have had reports from two people that the F1 offspring are currently breeding for their new owners, at the time of writing this it would make the F1 generation seven months old at the very latest, potentially six months old to sexual maturity!

I hope that this report may help others in their quest to maintain and breed this beautiful and interesting little catfish, I am certainly becoming converted to the more obscure and rarely spawned South American catfish!

Juvenile grazing on exposed oak branch, soon after absorbing the yolk sac. Fry and juveniles are ignored by their parents. Photo: Steven Chester.

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Corydoras petracinii Calviño & Alonso, 2009, a critically endangered species from the Juramento River Basin, northwestern Argentina (Siluriformes: Callichthyidae).

By Felipe Alonso, Ph.D.

Fig. 1. *Corydoras petracinii,* live specimen soon after collection. Photo: F. Alonso.

Here, I present the first of a series of short articles treating the diversity and ecology of some catfish species from north-western Argentina. This area presents several endemic fish species (e.g., *Corydoras gladysae*, *C. micracanthus, Rineloricaria steinbachi*, *Microglanis nigrolineatus*, *Heptapterus quenqo, Astyanax endy*, *A. chico*, *A. latens*, *A. puka*, *Oligosarcus bolivianus*, *O. itau*, etc.). Endemic species have highly restricted distributions and can easily become threatened or endangered by environmental changes and habitat loss.

The high level of endemism in this area is likely created through a process of ecological isolation in the Andean headwaters of the La Plata basin. Rivers in this area are clear and flow swiftly over substrates dominated by cobble and medium-sized boulders (Fig. 2).

This biogeographical region is classified as "Yungas", which is a jungle environment with marked dry (winter) and wet (summer) seasons. Summer rains considerably increase the water flow and turbidity of local streams, and secondary channels with lower current speeds containing abundant aquatic vegetation where many small fish are observed. Leaves and allochthonous organic matter from the nearby forests add nutrients to these aquatic systems.

The water is generally slightly alkaline (pH 7.4) depending on the river and time of the year. As these rivers drain eastwards into the chaco-pampasic flood plain, they undergo a great change in terms of their ecological conditions occurs. The rocky substrate gives way to submerged wood anchored in clay sediments, no aquatic vegetation is observed, and the water remains turbid throughout the year (although it becomes slightly clearer in winter).

The ecological changes are reflected in two distinct fish communities with only a handful of species living in the ecotone between these two environments. The fauna in the pampasic plain is typical of the Paraná-Paraguay River, sharing many species with those basins. In contrast, the ichthyofauna of the headwaters is usually exclusive to each stream or area. This is likely due to the ecological differences between these

Fig. 2. Typical small order stream in north-western Argentina, the Arroyo Anta Muerta. Photo: Felipe Alonso.

areas effectively presenting a dispersal barrier and encouraging diversification in isolated headwaters.

In this first brief article I will introduce to you *Corydoras petracinii* (Fig. 1), and discuss its conservation status. This species was described in 2009 by Pablo Calviño and I from specimens collected in a small creek leading into the Río San Lorenzo (Juramento River basin) on the outskirts of Salta, in north-western Argentina (Fig. 4). This species conservation status is very critical since the known distribution of this species is restricted to the type locality and its habitat has been greatly modified by the construction of a new highway.

This species name was dedicated to Roberto Petracini, a local fishkeeper who for decades has been helping to promote the keeping of South and Central American freshwater fishes in aquaria, including those found in Argentina.

Fig. 3. Fish-eye view of low-current, first order stream in the Yungas (Bermejo River basin). Video link here. Photo: Felipe Alonso.

Corydoras petracinii (Fig. 1) differs from all other species of the genus by the following combination of characters: 23 dorsolateral body plates; 21 ventrolateral body plates, small eyes (13.2–17.3 % of head length); body moderately elongate (body depth 27.4–33.1 % of standard length). Dorsal spine length (19.5–12.6 % of standard length); Pectoral spine length (19,6–16,6 % of standard length); trunk with five to seven differentiated sub-square blotches at junction of body plates; caudal fin slightly emarginated, hyaline with joined dark blotches forming three or four vertical irregular stripes; pectoral, pelvic, and anal fins translucent and without blotches.

Nowadays, the type locality is completely dry (Fig. 5, lower right) and the last *Corydoras* to have been collected there were those that formed the type series. Nevertheless, in the Río San Lorenzo into which this small creek empties, *C. petracinii* has been observed in some pools during the dry months. Additionally, this year we found another population 340 m west of the type locality in another small tributary of the San Lorenzo. Despite sampling efforts in the upper Juramento, we were not able to detect this species in other localities or elsewhere in the San Lorenzo system. I think this species may occupy a narrow ecological niche and is vulnerable to

Fig. 4. Type locality and area of natural distribution of *Corydoras petracinii* (yellow marker pin). The city of Salta can clearly be seen to the right, and the passage of the newly-constructed highway running from northeast to south through the region. Image courtesy of Google Earth.

habitat deterioration and the effects of local land use due to its restricted distribution. It is possible that it is present in some creeks and streams with small isolated catchments (and therefore the seasonal change in discharge is not so pronounced). Other rivers, such as the San Lorenzo, have large catchment basins and in summer they can experience extreme increases in discharge, flow rate and turbidity.

The river was completely dry in the late Autumn (October-November), as much of the annual rainfall occurs from December to March. Channelization and water removal has created an artificially ephemeral stream from a once-permanent one. Additionally, the habitat and stream course has been fundamentally modified with excavators to form flood defences for the nearby neighbourhoods. Unfortunately, this is a poor strategy since the channelization makes the water flow faster which scours the river bed and margins to eliminate the buffering capacity of the channel, making flooding more likely. As such, these modifications have completely destroyed the original ecosystem and disrupted the natural cycles necessary to sustain local biodiversity.

In addition to the physical assault suffered by the streams of this area, household and commercial waste is released directly into riverwater. A recent analysis of water quality in the Río Arenales (into which the San Lorenzo empties 4 km downstream of the *C. petracinii* type locality) shows high levels of several metals according to a local newspaper: zinc, up to 50µg/L (the limit is 30µg/L); copper, up to 15 times more than allowed; chromium, 3µg/L in the channel (the limit is 2µg/L); lead exceeded the limit of 1µg/L throughout the river, but 20 times the limit near the leachate pool of the San Javier landfill; aluminium, 24–2040 µg/L (limit of 5 µg/L).

Fig. 5. Type locality of *Corydoras petracinii* prior to highway construction, ca. January 2007 (left), during construction, ca. 2009 (upper right) and the same location in Novermber 2014 (lower right). Photos: Felipe Alonso.

Until now, only one fish species was known to be endangered in Argentina, the "naked characin" *Gymnocharacinus bergi*. This tetra inhabits a small creek in northern Patagonia where it is under strong predation pressure from introduced rainbow trout (*Onchorhynchus mykiss*). The local authorities have been informed about the situation, and while they are responsible for a conservation action plan, no policies or concrete steps have been made. *Corydoras petracinii* should now be considered the second species of fish that is *critically endangered* in Argentina. It is my hope that this note will help call attention to the plight of this beautiful and interesting species in order that real measures are taken by local authorities to protect it immediately and secure its future.

Fig. 6. *Rineloricaria steinbachi.* Photo: Felipe Alonso.

Report on the 2018 CSG Convention

By Michael Hardman

2018 Speakers, left to right: Mark Walters, Norman Behr, Steve Grant, Richard Smith, Jamie Horne, Allan James Sr. John Lundberg, Rupert Collins and Rafael Covain. Photo: Ben Nicholls.

As Old Man Winter gives way to the renewed promise of Spring, catfish fans from across Europe made their annual pilgrimage to their own private Holy Land in Northwest England; Wigan. Although I unfortunately had to withdraw from the convention at the eleventh hour, I followed every minute via social media and felt an immense sense of relief and pride in the culmination of a year's worth of group effort put in by Mark Walters, Danny Blundell, Jools Dignall, Ann Blundell, Brian Walsh and myself. This was the 39th year that the Catfish Study Group has thrown a convention, and it may well have been the best yet.

Our venue for the past few years was the same (Kilhey Court in Standish, near Wigan) and 80 delegates filled our room quota and placed a heavy strain on hotel food and drink supplies, especially the Amstel. Our thanks to staff at Kilhey Court for making us feel welcome and looking after us over the weekend.

Base of operations for the 39th Annual CSG Convention: Kilhey Court, Wigan. Photo: Andressa Figueiredo de Oliveira

Invited speakers this year were all first-timers at the CSG; John Lundberg (USA), Raphael Covain (Switzerland), Rupert Collins (UK) and Norman Behr (Germany) provided intellectual stimulation and siluriform titillation through their excellent talks and conversation with delegates. CSG members Steve Grant, Jamie Horne, Allan James Sr., and Richard Smith gave a rousing travelog of their recent collecting trip to Madre de Dios in Peru and, at very short notice, Mark Walters and Norman stepped into the breach to provide two loricariine spawning accounts in my absence - thanks guys! Through this year's talks, delegates heard the latest word in catfish diversity, paleontology, evolution, biogeography, ecology, reproduction, and their care in captivity.

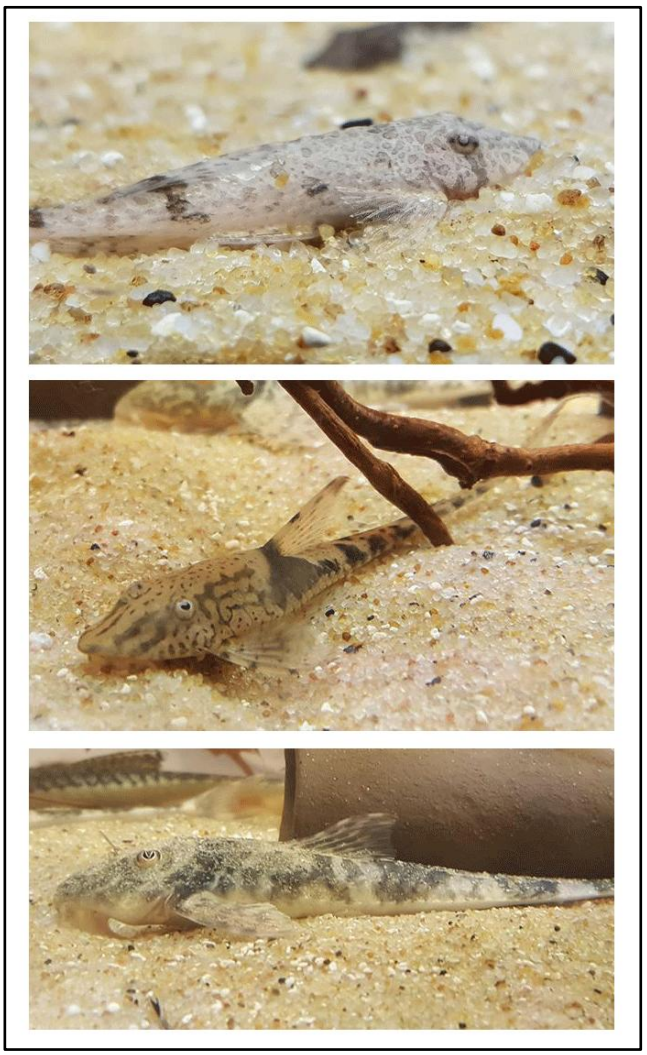
The committee wishes to thank all our sponsors for their support and attendance of the convention, providing an excellent selection of high-quality products and for importing some amazing catfishes for delegates to see and buy – we couldn't do it without you! Also, a big thank you to the many delegates that brought an incredible diversity of captive-bred catfishes to the event. I'm still hearing about the journeys that many of the fish made, and have made since. It's great to see the convention work as a trading post in this way, with breeders distributing stock across Europe to ensure aquarium populations of many rare plecos and corys remain genetically healthy and that knowledge is shared about how best to care for them in captivity.

And of course the delegates… Many thanks to all of you for spending your time and money to

Hand carving of *Pseudohemiodon apithanos*, this year's convention mascot, skillfully created and finished by Brian Walsh. Photo: Mark Walters.

attend the convention. It was great to see so many regulars as well as a lot of new faces at this year's event. After pestering him for regular updates throughout the weekend, Mark eventually explained that the convention was running smoothly, that he had only received positive feedback from delegates, and that I should get back in bed. Since Sunday, I have been thrilled to see so many delegates express their thanks and encouragement to the committee on social media, the most-lengthy of which by Wiltshire Plecos Admin Nick Ridout (included here, with permission). If you haven't already done so, please mark your calendar for the 2019 event (March 17–19) when we will celebrate 40 years of catfish conventions!

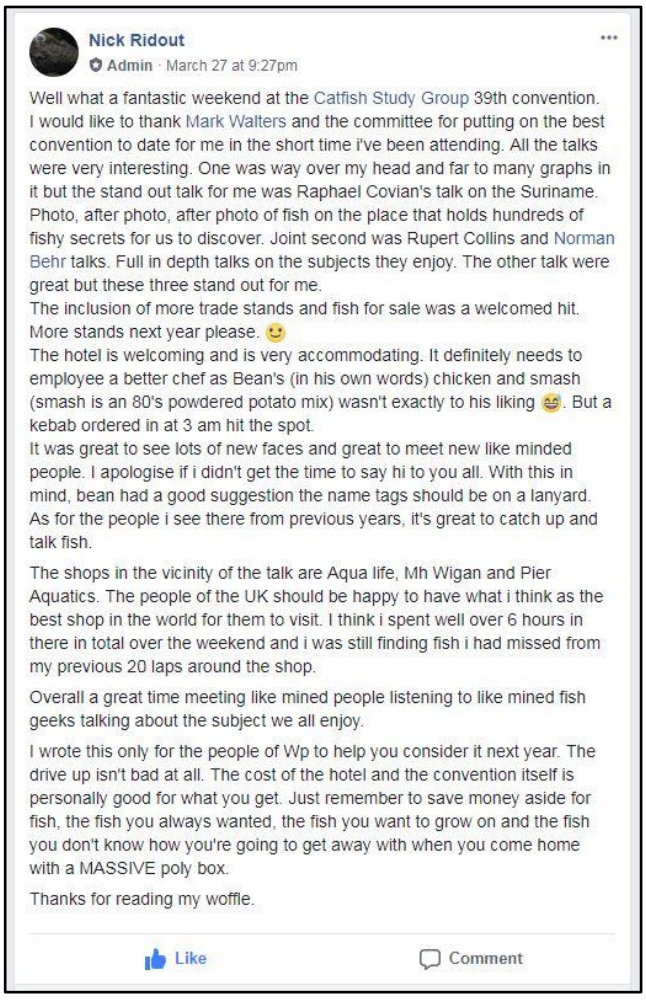
Die-hard delegates stay late for a last supper on Sunday evening. Photo: Benny Hubel Hansen.



This year's theme was loosely based on Loricariinae, and they featured strongly in sales tanks. *Hemiloricaria melini* (above), *Sturisomatichthys* sp. (middle) and *Spatuloricaria puganensis* (below). Photos. Joakim Schön and Craig Whitehead

Many thanks to all our sponsors and traders that support the convention. Another great selection of fish and products for delegates to sample. Photos: Mark Walters and Craig Whitehead.

For most of the past 39 years, CSG member and Show Secretary Brian Walsh has provided a beautiful series of carvings for our convention speakers, and this year was no exception. Brian freely gives his time and talent to the CSG and his artwork has become the hallmark of catfish nobility and his carvings jostle for pride-of-place on academic bookshelves throughout the world. Brian also takes commissioned work and can help you with your needs for craftsman joinery (see his advert on the back page).



Nick Ridout
Admin · March 27 at 9:27pm

Well what a fantastic weekend at the Catfish Study Group 39th convention. I would like to thank Mark Walters and the committee for putting on the best convention to date for me in the short time i've been attending. All the talks were very interesting. One was way over my head and far to many graphs in it but the stand out talk for me was Raphael Covian's talk on the Suriname. Photo, after photo, after photo of fish on the place that holds hundreds of fishy secrets for us to discover. Joint second was Rupert Collins and Norman Behr talks. Full in depth talks on the subjects they enjoy. The other talk were great but these three stand out for me.
The inclusion of more trade stands and fish for sale was a welcomed hit. More stands next year please.
The hotel is welcoming and is very accommodating. It definitely needs to employee a better chef as Bean's (in his own words) chicken and smash (smash is an 80's powdered potato mix) wasn't exactly to his liking. But a kebab ordered in at 3 am hit the spot.
It was great to see lots of new faces and great to meet new like minded people. I apologise if i didn't get the time to say hi to you all. With this in mind, bean had a good suggestion the name tags should be on a lanyard. As for the people i see there from previous years, it's great to catch up and talk fish.

The shops in the vicinity of the talk are Aqua life, Mh Wigan and Pier Aquatics. The people of the UK should be happy to have what i think as the best shop in the world for them to visit. I think i spent well over 6 hours in there in total over the weekend and i was still finding fish i had missed from my previous 20 laps around the shop.

Overall a great time meeting like mined people listening to like mined fish geeks talking about the subject we all enjoy.

I wrote this only for the people of Wp to help you consider it next year. The drive up isn't bad at all. The cost of the hotel and the convention itself is personally good for what you get. Just remember to save money aside for fish, the fish you always wanted, the fish you want to grow on and the fish you don't know how you're going to get away with when you come home with a MASSIVE poly box.

Thanks for reading my woffle.

Like Comment

Wiltshire Plecos Admin Nick Ridout gives his thoughts on the 2018 convention. Reproduced with permission.

Another great source of satisfaction and pride for me personally has been watching the new CSG Research Support Fund finally take flight. The selection panel was pleased to receive several applications from eligible young researchers and we announced the recipients of this year's award cycle at the convention (see my article later in this issue). We look forward to hearing about Felipe's and Julieta's research in the months and years to come. Please help us secure the fund and get more money into the hands of young scientists working with catfishes by recommending a digital journal subscription to your fish-keeping friends and colleagues, or by donating directly via our fund-raising page.

Honoured conventioneers from academia, left to right: Drs. Peter Burgess, David Sands and David Price. Photo: David Sands.

Rare and beautiful corys and plecos were on display and available in local retailers, many of which were captive bred by delegates. Photos. Joakim Schön, Mark Walters and Craig Whitehead.

Now that the stratospheric stress levels have been replaced with the warm afterglow of another convention duly served, the committee will soon re-assemble to begin planning next year's event and deal with all the other activities the CSG provides through the year at little or no cost to its members.

If you have suggestions for particular subjects or people you would like to hear from, please get in touch!

First-time delegates and sponsors (EBO Aquaristik, Germany) Timo Schellenberg (left) and Julien Preuß enjoyed a full-contact convention sampling local aquatics retailers and the hotel bar. Photos: Julien Preuß

Please mark your calendar for the 40th Annual CSG Convention: **March 17–19 2019**

Check our website, journal and Facebook group for updates!

Intense algal growth observed on the surface of *Amaralia hypsiura* (Kner, 1855) (Siluriformes: Aspredinidae).

By Steven Grant

Fig. 1. *Amaralia hypsiura* showing intense algal growth on skin surface. Photo: Dan Wong.

In December 2017, photographs of a green *Amaralia* banjo catfish appeared on the Facebook group *Catfishes of the World*. The images were startling and initially the author thought it was a Christmas joke but correspondence with the photographer (Dan Wong) clarified that they were genuine.

Dan purchased a group of *Amaralia hypsiura* (Fig 2), known in Hong Kong as Boa catfish, probably due to their tendency to wrap their tails around their body like a snake (see Grant, 2016, for an explanation of this behaviour). One specimen was placed in an 18" long x 10.5" deep x 11" high tank. The tank is lit by LED 6500k to promote plant growth, with a lighting time 12:30pm to 20:30pm. The tank is not heated but the room temperature varies between 24 and 25 °C and carbonate is added daily. pH is not known. Water changes are made 2-3 times a week and food is offered 2-3 times a day. Other tankmates are 13 tetras, four *Corydoras*, eight loricariids, and 10 *Apistogramma*. After 10 days in the tank, the *Amaralia* had turned bright green (Fig. 1) but the following day was back to normal (Fig. 3). Two days later, it started to turn green (Fig. 4) and by the next morning was an intense green (Fig 1) before returning to the normal colouration the following day (Fig. 3).

Fig. 2. Group of *Amaralia hypsiura* soon after purchase. Photo: Dan Wong.

Fig. 3. *Amaralia hypsiura* exhibiting normal colouration. Photo: Dan Wong.

Saprolegnia commonly infects fish wounds but whilst this pathogen is more closely related to algae than fungi, in their appearance they are similar to true fungal infections, sometimes called Cotton Wool Disease. Algal colonisation and infection in fishes is much rarer but has been documented in both freshwater and marine

Fig. 4. *Amaralia hypsiura* beginning to show the onset of algal re-growth. Photo: Dan Wong.

fishes (Edwards, 1978; Ballantine et al, 2001; Yanong et al, 2002). To the author's knowledge, there are no published accounts of algal colonisation or infection in catfishes. John Friel (pers. comm.) has observed some algal growth on preserved bunocephalins, but not to the extent shown here.

While no detailed investigation was made of the nature of this association, it appears that the green pigment was created by a turf of algae growing on the surface of the catfish. The rarity of the observation could be due to the intensity of the lighting and the added CO3, and it might not occur in natural situations to this extent. In contrast to other catfishes in Dan's aquarium, aspredinids have no bony plates in their skin but are quite special in that their skin is extensively keratinized (like in fingernails and rhino horn) so this may make them more susceptible to algal infection/colonisation than plecos or corys. Also, their tendency to lie motionless on the substrate may enhance the growth of any algae that attaches to the skin. Grant (2016) showed an example of *A. hypsiura* in the process of shedding its skin (Fig. 5), and this would account for the short duration of the condition. Aquarists believe that aspredinids shed their skin in response to poor water quality or infection. Algal infections of fish are known and can lead to algal cells invading the internal organs and the ability to shed the infected skin might well be an adaptation of the immune system in banjo catfishes.

Fig. 5. *Amaralia hypsiura* in the process of shedding its skin. Photo: Steve Grant.

Acknowledgements

Thanks to Dan Wong of Aqua Life, Kowloon, Hong Kong for photographs and information.

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Date	*Event*	*Location*
20 May	Visit to Countryside Aquatics	Moss Lane, Newcastle under Lyme, ST5 5EQ
8 July	Castleford AS catfish & loach show	Lock Lane Centre, Castleford WF10 2LW
16 September	Open show and auction	Derwent Hall, Darwen BD3 0DQ
21 October	CSG at the Blue Planet	Copenhagen, Denmark
18 November	Autumn auction	Derwent Hall, Darwen BD3 0DQ
9 December	Christmas meeting	Derwent Hall, Darwen BD3 0DQ

More information at catfishstudygroup.org and on Facebook

Helsingin AkvaarioSeura ry Keväthuutokauppa (Helsinki Aquarium Society Spring Auction).

By Michael Hardman

Once a year, Finnish aquarists get together in Helsinki to trade their surplus plants, fish and equipment much as they do elsewhere in Europe. I've been to a few auctions in the UK, and I took some young catfishes to the Helsinki Aquarium Society (HAS) Spring auction to make some room in my tanks and promote these interesting fish that seem somewhat "off the radar" in Finland.

For me, it was a new experience and I thought I'd share it with UK readers as an example of how auctions are run elsewhere, or if they are looking for ideas about how to freshen things up.

Much like everything else in Finland, the organisation was strictly no nonsense. All sellers are required to attach a sales ticket to everything they want to sell detailing the seller's name and telephone number (in duplicate), species or item being sold, and any reserve price. As items are sold, runners detach part of the ticket containing one copy of the seller's name and the winning bid, and this is handed to a cashier along with the money that returns with the runner.

There are no "lots" of items from a single seller that are sold before proceeding to the next one. Auctioneers are free to choose items at will, and all is placed on tables for buyers to view before the auction. The auction organizers also decide whether items submitted for will be auctioned or placed into a "marketplace". The marketplace opens when the auction pauses for a lunch break, and at this time buyers rush to grab the spare parts, food, plastic items, etc. that would otherwise have slowed the auction down. All items in the marketplace are sold at the seller's reserve, and the same ticketing system is used to make sure the money goes to the right seller via the cashier. I decided to be first in the lunch queue instead, and stayed well clear of the scrum!

For me, the mystery of what was coming next kept the attention of buyers and two or three auctioneers took turns selecting and selling items so there was no time wasted reaching into boxes, pulling out and identifying the item being sold. Slick selling, strong coffee and fair prices. Not sure why, but it's quite common to be given a bucket in Finland when you least expect it. I got mine here, and very nice it is too.

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CATFISH STUDY GROUP

Research Support Fund

At the 2018 convention, Mark Walters and Julian Dignall announced the 2018-19 Research Support Fund award winners. We are delighted to be able to provide full funding (£500) to each of the two applicants the RSF panel decided were eligible for support and whose work would likely result in tangible progress in catfish research.

Trichomycterus banneaui (Eigenmann, 1912). Photo: Creative Commons.

Our first award winner is Julieta Maria Andreoli Bize, a PhD student at the Universidad Nacional Catamarca in Argentina. She is studying the diversity and relationships of *Trichomycterus*, a large and widespread genus of pencil or parasitic catfishes found in montane streams of South America. These catfishes are reminiscent of loaches, and are not often seen in the aquarium trade on account of their habitat preferences and difficulty of collection using standard means. *Trichomycterus*, along with *Astroblepus*, are one of a handful of fish genera that can tolerate the crashing conditions of high-altitude streams, and in some cases are the only fish there at all. They are highly endemic, with each stream often having its own species or form, and their biology is very poorly known.

Julieta requested funds to continue her fieldwork in northwest Argentina, where she expects to find several new forms of undescribed *Trichomycterus*, and examine preserved specimens in museums in order to better understand the described species and detect the character complexes that help to identify the species.

2018 CSG Research Support Fund Award recipient: Julieta Maria Andreoli Bize

The CSG RSF panel congratulates Julieta on her successful application, and looks forward to hearing about the progress the award will help her make. Buena suerte!

Our second award recipient is Dr. Felipe Alonso, Post-doctoral researcher at the Instituto de Bio y Giociencieas del NOA (IBIGEO-CONICET) in Argentina. Felipe is studying diversity and evolution of Neotropical fish generally, and runs several active Facebook groups promoting new discoveries and emerging issues in Argentina. Felipe requested funding to continue exploring and monitoring threatened freshwater habitats in northwest Argentina (see his article in the current issue).

Specifically, Felipe will use his £500 award to cover transport and accommodation costs incurred while surveying the Pilcomayo (April

2018 CSG Research Support Fund Award recipient: Dr. Felipe Alonso

2018) and Bermejo (September 2018) river basins.

Northwest Argentina is home to some very special catfishes such as *Corydoras gladysae* and *Rineloricaria steinbachi*. Felipe believes that more endemic catfishes will be revealed when he visits the streams around Salta with his nets later this year.

The clearwater streams Felipe is working in are something of an ecological novelty in Argentina, and he suspects their underlying geology and ecological isolation may explain the high endemism of the animals and plants found there. The swift streams flow over rocky substrates devoid of aquatic macrophytes, are typically slightly alkaline (pH 7.4), and the fauna is very different to that in lower courses, where the habitat also changes abruptly. Few species manage to move across this ecological "barrier" and, as such, they adapt to their respective sides and diverge to become different species.

Furthermore, as Felipe details in his article in this issue, these streams are threatened by deforestation, mining, and modification for hydropower. A comprehensive survey of the area must be completed urgently to catalogue its diversity and focus conservation efforts.

We are excited and encouraged by the interest shown in the inaugural round of the RSF, and we look forward to hearing back from Julieta and Felipe in the coming months about their research and how our support has helped them. The panel will open the 2019-20 cycle later this year and announce award recipients at the 2019 convention. Many thanks to all that have donated, promoted and supported our new program, and please recommend a digital subscription of our journal to your fish-keeping friends so that we can make more and larger awards in the years to come.

Corydoras micracanthus Photo: F. Alonso

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