

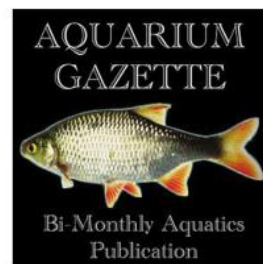
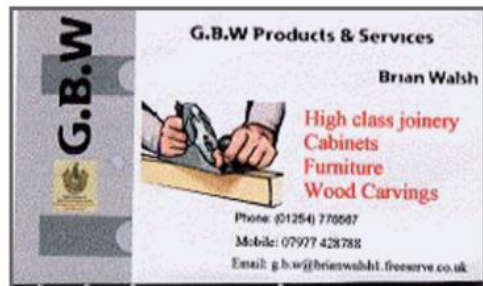
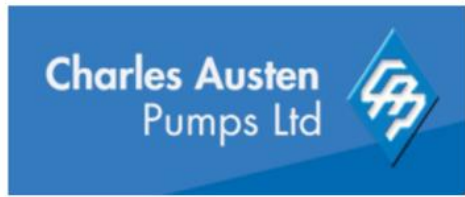
Journal of the Catfish Study Group



March 2020

Volume 21, Issue 1

**In this edition: CSG Convention 2020, *Rhynchodoras* from Bolivia,
Denticetopsis seducta, *Ageneiosus magoi*, L233, CW155, CW004**



Contents

Chairman's Report	5
<i>Ageneiosus magoi</i>	6
Annual General Meeting (AGM) – 19th January 2020	9
<i>Rhynchodoras</i> from Bolivia	11
<i>Denticetopsis seducta</i>	12
CSG Convention 2020	16
<i>Hypostomus</i> L233	20
Research Support Fund	24
Tank bred <i>Corydoras</i> CW155	25
Hovering behaviour in <i>Corydoras</i> CW006	27

Cover image: *Hypostomus cochliodon*. Photo: Luiz Tencatt

Convention 2020 logo – *Hara mesembrina* original artwork by Coral Vane Wright, courtesy of Catfishes of the World





- The Journal of the Catfish Study Group (JCSG) is a subscription-based quarterly published by the Catfish Study Group (CSG). The journal is available in print and electronic platforms. Annual subscriptions to JCSG can be ordered and securely paid for through the CSG website (www.catfishstudygroup.org).
- The JCSG relies on the contribution of content from its members and other parties. No fees or honoraria are paid in exchange for content and all proceeds from advertising and subscriptions are used to support CSG events and activities. At the end of the financial year, any remaining funds generated from subscriptions to JCSG are transferred to the CSG Science Fund. The Editor and other CSG personnel involved in the production of the journal do so voluntarily and without payment.
- Please support the CSG by contributing original articles concerning catfishes that might be of general interest to JCSG subscribers. Word processor files (e.g., .doc, .docx) and high-resolution images (at least 300 dpi and 8.5 cms wide) can be sent as email attachments to editor@catfishstudygroup.org. If necessary, the Editor will work with contributors to structure and polish text and format images for inclusion in the journal. The Editor reserves the right to edit submitted text and images to improve flow and comply with the layout and page limits of the journal. Any manuscripts that propose taxonomic or nomenclatural changes will be forwarded to a qualified professional for evaluation.
- None of the text or images contained in the JCSG may be reproduced (in whole or part) in digital or print media without the written permission of the Editor. Text and image copyrights remain with the author and original photographer, respectively. All rights are reserved. The CSG assumes no responsibility for the views or opinions expressed in contributed articles.
- The CSG gratefully acknowledges the generous sponsorship of the CSG by numerous aquatics manufacturers, retailers and private individuals.

If you would like to advertise in JCSG, here are the options we currently offer. All charges include 20% VAT and are used to support CSG events and activities. Please save advertisements as Portable Network Graphics (.png format), at least 300dpi and sized according to the table below. We can also help prepare your advertisement at no extra charge. Please contact editor@catfishstudygroup.org for further information.

<i>Size (page)</i>	<i>Approximate height × width (cm)</i>	<i>Colour</i>	<i>Black & White</i>
Full	26 × 18	£148.00	£50.00
Half	13 × 18	£80.00	£30.00
Quarter	13 × 9	£50.00	£20.00
Eighth	6.5 × 9	£30.00	£12.50
Sixteenth	3.25 × 9	£18.00	£8.00

Chairman's Report - Mark Walters

In uncertain times our precious hobby can provide a modicum of solace while all around us seems mayhem. In recent months we have had storms, fires, floods and now disease wreaking havoc across the world, challenging all of us to maintain our normal lives. It puts things into perspective and we all need to support those around us who may have been impacted through loss of income, hardship or worse.

Thankfully, the catfish community is a great group of people who have a respect for the environment, their fish and each other. The CSG brings people together to share this passion through its regular events and of course the annual Convention. The storms took a toll on our February auction, and whilst it still took place, attendance was understandably reduced. The Convention took place as planned with only 7 cancellations as a result of travel restrictions. A full report is included in the Journal, but it's worth reiterating what a great event it was – probably my most enjoyable yet, out of the last 15 I have attended.



Mark and Luiz – CSG Convention 2020

In January, the Committee conducted its usual Annual General Meeting, with little significant business. We did, however, ratify the positions of 3 CSG members as full Committee – so welcome Ben Nicholls, Jamie Horne and Steve Grant to the Committee. More recently, Steve has agreed to take on the role of CSG Journal Editor, starting with this edition. No doubt Steve

will continue to improve the quality of the publication, especially with his strong links with the scientific community. Thanks to all the Committee for their continued hard work, support and perseverance to deliver our core outputs.

Over the next few months, we will start to look forward again with optimism for the future of the club and its members. Planning for the 2021 Convention has started and dates secured at the same venue. Put a note in your diary for the 19/20/21st March. A key priority over coming months will be to refresh our website to ensure we can provide regular updates and the latest CSG information to our members. Personally, I am looking forward to carrying on with fish house refurbishment, so I can get back to some catfish breeding, much neglected over the last mad busy year!

Whatever you are up to, make sure you keep in touch with our members through the CSG Facebook site, attend our meetings and consider making a contribution to our Journal with your experiences as fish keepers. Above all, enjoy your hobby, be happy in what you do and respect your fellow catfish enthusiasts.

Mark

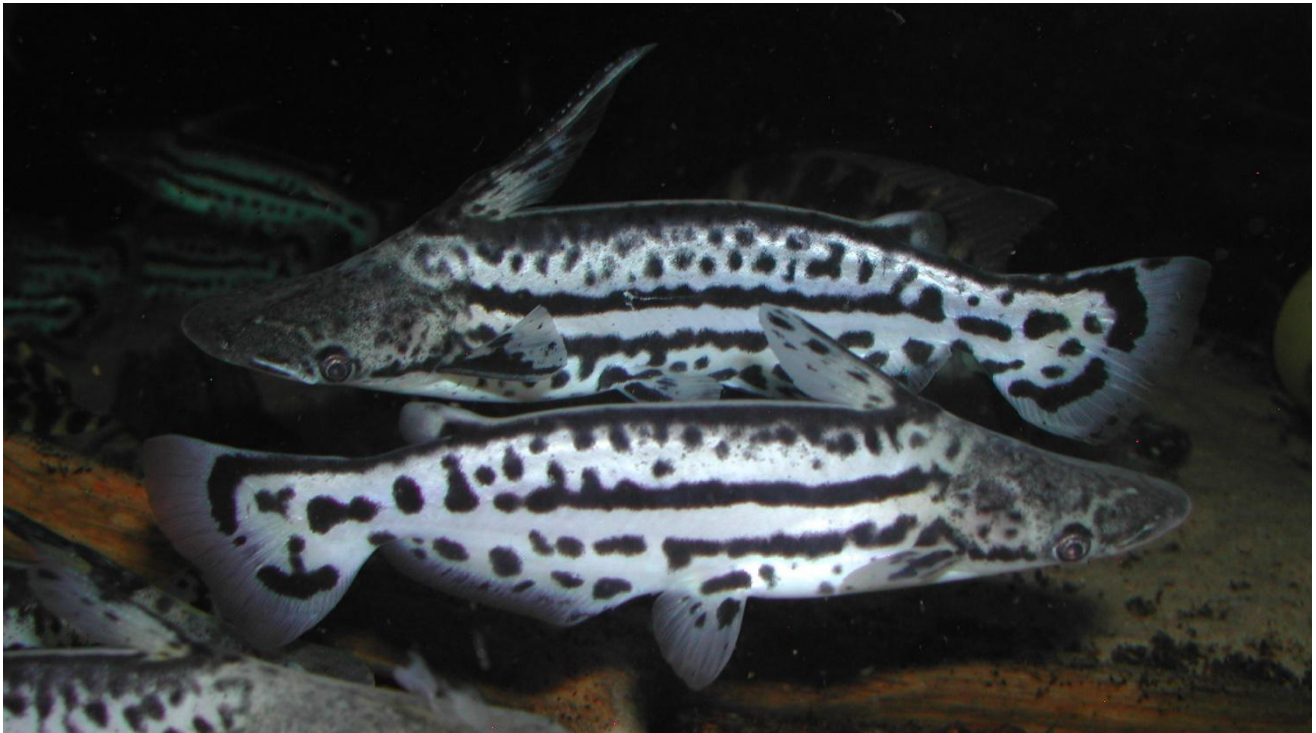
Editorial

Welcome to my first issue of the Journal. If you have any possible articles you wish to submit or subjects you want to be covered please get in touch using the group's Facebook page. Hopefully in the next issue there will be some breeding articles and not so many articles by me.



Steve Grant

***Ageneiosus magoi* Castillo & Brull, 1989**
Steve Grant



Ageneiosus magoi Castillo & Brull, 1989 – male above, female below

In 2019 Pier Aquatics, Wigan imported a number of specimens of *Ageneiosus magoi* Castillo & Brull, 1989.

These are one of the most beautiful species of the genus *Ageneiosus* Lacepède 1803. This genus is a member of the catfish family Auchenipteridae (or woodcats), and the subfamily Auchenipterinae. Along with *Tympanopleura* Eigenmann, 1912 and *Tetranematichthys* Bleeker, 1858 they make up the tribe Ageneiosini (See Calegari et al., 2019). They are sometimes referred to as Duck Catfish, or Slopehead Catfish, due to their distinctive head and snout shape.

A. magoi comes from the Orinoco River basin in Colombia and Venezuela. It can be easily separated from congeners by its black and white horizontally lined pattern (which can vary in thickness and number of lines, and they can be broken into spots), rounded or truncate caudal fin, and the presence of a light mid-dorsal stripe

extending from the posterior portion of the dorsal-fin base to the adipose-fin origin (Ribeiro et al., 2017). The author has seen some specimens being labelled on aquarium websites and social media groups as *A. cf. magoi*, but cannot see the justification for this other than the lines are broken into spots, but this happens in some *A. magoi*.

According to Ribeiro et al. (2017) they will reach up to 17cm SL. The three largest specimens in Pier are around that size already and smaller specimens at approx. 12cm SL are showing sexual dimorphism, so this seems a likely maximum adult size. Males have a longer and bonier dorsal fin spine, thickened and ossified maxillary barbels (with sharp recurved hooks on the dorsal margin of the barbel), and have the first few rays of the anal fin thickened and elongated.



Ageneiosus magoi male dorsal fin



Ageneiosus magoi female dorsal fin



Trachelyopterus insignis (Steindachner, 1878). Male with modified dorsal fin and maxillary barbels.

Therefore, it is easy to sex this species and it would make a fascinating breeding project for advanced aquarists. The sexual dimorphism is very similar to some *Trachelyopterus Valenciennes*, 1840 (e.g. *T. insignis* (Steindachner, 1878)). Whilst no *Ageneiosus* have been spawned in the aquarium (to the author's knowledge), *T. insignis* and others have been. It has been proven by aquarists that in *Trachelyopterus* the purpose of the hypertrophied dorsal fin spine and maxillary barbels is to hold the female in place whilst the elongated anal fin rays are used to internal inseminate the female. It is very likely that this is the purpose in *Ageneiosus* (and *Tympanopleura* and *Tetranematichthys*).

Oliveira et al. (2017) found (in another species of *Ageneiosus*) higher levels of reproductive activity during the dry–rainy transition period and rainy season, than in rainy–dry transition period and dry season. They suggested that this may be because, fluctuations in precipitation rates constitute the principal abiotic factor affecting ecosystems, mainly due to the runoff of nutrients from terrestrial systems, contributing to the increase in feeding resources and the overall enrichment of the aquatic ecosystems during this period. So, if you want to try and spawn this species you need to simulate a rainy season by way of your water levels, temperature etc, and also associated food increase. So far, all wild *Ageneiosus* stomach contents found have been fish and crustaceans. Neil Woodward at

Pier Aquatics states his specimens eat mussels, prawns, and whitebait.

So, if you fancy a breeding challenge, and you have a large aquarium and like black and white catfish that don't hide, I recommend giving *A. magoi* a try.

Acknowledgements

Thank you to Neil Woodward at Pier Aquatics, Wigan for the opportunity to photograph the species, and for the feeding information.

References

- Calegari, B. B., R. P. Vari and R. E. Reis, 2019. Phylogenetic systematics of the driftwood catfishes (Siluriformes: Auchenipteridae): a combined morphological and molecular analysis. *Zoological Journal of the Linnean Society* v. 187 (no. 3): 661-773.
- Oliveira, V. A., M. A. P. Ferreira, R. M. Rocha and L. F. A. Montag, 2017. Reproduction of the duck catfish *Ageneiosus ucayalensis* in a ria river system. *Journal of Fish Biology*: v. 90 (no. 3): 1062-1069.
- Ribeiro, F. R. V., L. H. Rapp Py-Daniel and S. J. Walsh, 2017. Taxonomic revision of the South American catfish genus *Ageneiosus* (Siluriformes: Auchenipteridae) with the description of four new species. *Journal of Fish Biology*: v. 90 (no. 4): 1388-1478.

Annual General Meeting (AGM) – 19th January 2020

Attendees: Mark Walters, Danny Blundell,
Steven Grant, Brian Walsh

The minutes of the 2019 AGM were accepted as an accurate account of proceedings.

CSG Committee Reports

Chairman – Mark Walters

2019 was an extremely successful year for the CSG. We carried out our regular club meetings without any issues and with great feedback, achieving our aims to further the study of catfish. In addition to our regular auctions and show, we held a hugely successful 40th annual convention, a joint pleco day and two other members shop visits. Committee and other CSG members attended and spoke at the US Cataclysm event, gaining over 140 new CSG members and at the L- numbers days event in Hannover, Germany.

We have had no complaints raised against the club, its committee or its members. The social media outlet (Facebook) has provided an effective conduit for club communications and effective administration maintains its presence for the benefit of all users. The CSG website has not been updated with content in 2019, due to a lack of resources and IT skill on the part of current Committee.

After the 2019 AGM, we recruited the services of three assistant committee members. We expect to ratify them as full Committee members at the 2020 AGM. The posts of Secretary and Editor, carried out by Mark Walters in 2018 / 2019 are expected to be ratified as being held by Mark Walters at the 2020 AGM. We have communicated to our members the opportunity to take up any existing committee roles, but no offers have been made by members.

Direct emails have been sent to all of our members to communicate the 2020 Convention and the 2020 AGM.

Treasurer – Danny Blundell

nb. Financial details redacted for Journal, available to members on request

This is my eighteenth full year as the treasurer for the C.S.G.

The year ended with a healthy closing balance, but this included advance bookings for Convention 2020, which will soon be eroded when I start paying for speakers travel expenses ahead of the Convention.

Convention 2019 - at MacDonald's Kilhey Court was again a complete success, the Speakers and their lectures were of the highest quality, many specialist societies and sponsors supported us, and the delegates who attended had a great time. The Convention made an overall. In reality this figure is adequately covered by our auction profits, and we can continue to run such a prestigious event for our members at an affordable cost.

Open Show and 3 x Auctions - Made a good profit, which almost covers the running costs the CSG and its events. CSG Journal – 2019 was the fifth full year where members may subscribe to either a printed copy or an E-Journal.

The E-Journal is a great success, especially with our overseas subscribers who can avoid overseas postage charges. The postal rates have risen over the past year by approximately 5%.

Purchases – This year our only major purchase was a wireless headset for use by our lecturers and

Auctioneer.

Science Research Fund – This year we allocated four £500 sponsorships for catfish related projects. The Fund now stands at £500, raised at the Convention.

Finally, I would like to thank all of our members, advertisers, sponsors and supporters without

whose valuable support we would struggle to provide such quality events at prestigious venues.

Show Secretary - Brian Walsh

Another great day in the CSG calendar. Although the entries were down on recent years, with 11 classes having no entries the overall quality of the show was very high with only 1 class winner having less than 80 pts and that one only just missing out with 79.5 pts. Ten exhibits gained 85 pts and over, with the average of all placed exhibits being 82.7 pts. The auction was well attended with plenty of bargains and good prices.

My thanks to all that entered the show and attended the auction, to all who helped in any way judges, auctioneer, runners and cashiers, sponsors for show classes and specials, plaques and canteen staff. You all helped to make this a very successful day for the CSG

Secretary – Mark Walters

I have been carrying out any essential Secretary duties for 2019, in conjunction with other roles. Primarily, these have been in communication with members over AGM matters. I have also kept in touch with all Committee members for ongoing CSG business directly and through shared emails. Although we have not conducted many formal committee meetings, essential committee business has been managed effectively in 2019. We added an extra 120+ members following the Cataclysm event, increasing the CSG membership by a third and extending our reach into the USA.

Editor – Mark Walters

I have issued 4 Journals in 2019 with great support from the rest of the Committee in proof reading, final preparation, printing and posting. The additional members this year have massively extended our readership for the Journal. I have ensured that the Journal has been issued by the end of the relevant quarter. Enormous thanks to all the contributors to the Journal.

Convention Manager – Mark Walters

Although an enormous task, the role of Convention Manager brings me into direct contact with many of our active membership. The 40th Convention in 2019 was a great success with no significant issues. We have rebooked the 2020 event at the same venue. We have secured a great set of speakers for 2020 and have over 60 delegates already booked in.

Auction Manager – Mark Walters

I coordinated each of the three auctions in 2019 and arranged cover for the September auction, whilst I was representing the CSG at Cataclysm. All three events were a huge success, with up to 20 vendors and over 100 attendees generating sufficient profits to cover all the CSG costs (including the Convention) for the year. Thanks to everybody who supports the auctions and associated events.

IT Manager – Mark Walters

I have maintained the CSG social media site during 2019 and extended the licence for the CSG website. I have also managed conference calls to enable AGM and Committee meetings as necessary. In conjunction with the Treasurer, I have updated CSG membership lists and other content on the Committee OneDrive site.

Sales Secretary – Mark Walters

As part of the preparation for the Convention I have secured appropriate designs and ordered club badges and other merchandise to promote the CSG. In 2019 we ordered badges, mugs and clothing with original CSG designs.

Any other AGM Business

The following Committee posts were ratified:

Mark Walters as Secretary, Editor, IT Manager, Sales Manager
Steven Grant as Assistant Auction Manager
Jamie Horne as Assistant Convention Manager
Ben Nichols as Assistant IT Manager

The meeting was closed without further business

A potentially new species of *Rhynchodoras* from Bolivia

Daniel Konn-Vetterlein



The genus *Rhynchodoras* (Doradidae) seems to be known to few specialists mainly, they are rarely seen in the aquatic trade. Three species are currently described: *R. woodsi* from Río Itaya (Peru), *R. xingui* from Rio Xingu (Brazil) and *R. castilloi* from Río Apure (Venezuela).

This is the very first time the genus has been recorded from Bolivian waters, and it is not unlikely that it will turn out as a new species. Unfortunately, we only collected one specimen during “SiluCha Bolivia 2018”. It was hiding in a submerged trunk from where I managed to pick it up after several minutes of trying to grab it. *Rhynchodoras* do not grow very large with a standard length of 110 mm in *R. woodsi* e.g., which is a good representative for the genus. Our specimen was unlikely fully grown with its 40 mm.

Using their unique mouth elongation, they hunt on insect larvae and possibly also crustaceans. In the Rio Xingu I observed them twitching at rough surfaces to look for food.

This capture showed us that there are many ways of fishing and that you need to focus on the fish and its lifestyle to be successful. We would have never found this *Rhynchodoras* using nets only, and if we wouldn't have investigated that single trunk for at least one hour there would still be no record of the genus in Bolivia. I am already keen to go back to the places we worked in, because there were more trunks, more silent bays and more sandbanks we passed by during our trip. Also, we need more material of this species to be able to scientifically describe it.

The rare, pink whale catfish from Peru

Daniel Konn-Vetterlein



Denticetopsis seducta, a so-called whale catfish originates from near Iquitos, Peru. It belongs to the family of Cetopsidae. If you look at the big, round head and the small eyes, you can tell right away, where the common name originates from.

The genus is missing an adipose fin, and their dorsal fin is very small. The largest species of the family reaches almost 30 cm, the smallest only three to four. From time to time *Cetopsis* and *Denticetopsis* spp. are imported for the trade.

They enjoy a strong current and require relatively large aquariums with free swimming space. *Denticetopsis seducta* only grows up to a TL of 60 mm. Although the fish can be found in flowing areas of the aquarium, they generally prefer to hide somewhere in the decoration.

Frozen food is the best choice to lure them out of their hiding places. My specimens feed particularly well on *Daphnia* sp. and red

mosquito larvae, but do not deny any other frozen or live food either. Red mosquito larvae are by far the best, also because it allows you to observe the catfish hunting, as they rush through the tank at an unimaginable speed and cause unrest everywhere they go. They like to keep ground contact with their mouth and often swim in a slightly slant position.

Like some representatives of the Auchenipteridae whale catfish have the habit of resting on their side, and manage to look amazingly dead, an unwelcome experience for the concerned aquarist.

The few sources that deal with *Denticetopsis* recommend temperatures of 22 to 27 °C, something I can only partly confirm. My specimens tend to be much less active below 25°C, so I prefer to keep them at around 28°C.

The species name refers to the remote distribution area of *D. seducta*, the other six *Denticetopsis* spp. originate from Venezuela, Guyana and northern Brazil. Unfortunately, only few of them are known in the hobby. Therefore, it is not surprising that nothing is known about their reproduction so far, a field where one can still earn his laurel wreath. As it can be seen on

the main photo it is not difficult to make the females produce eggs, but is difficult to make them spawn.

The image by Steve Grant below appears to highlight sexual dimorphism in the genus. Steve's specimen clearly shows a spike like genital papilla. In catfishes this normally denotes a male specimen.



Denticetopsis seducta male showing genital papilla. Image by Steve Grant



Denticetopsis seducta male. Image by Steve Grant



PlanetCatfish



Unique Formula
with Insect meal



FishScience Catfish Foods

Recreates the natural insect based diet that most tropical fish would eat in the wild

Mini Algae Wafers contain essential roughage to allow effective digestion

Environmentally friendly and sustainable

Naturally enhances the colour of your fish using Spirulina algae, paprika and krill.

Contains garlic to support a healthy immune system

... and the fish really like it!

www.fishscience.co.uk

CSG Convention 2020 Mark Walters



CSG Convention 2020 Speakers l-r – Allan, Rebecca, Mike, Steve, Markus, Luiz, Andreas, Brian, Jost. Image by Ben Nicholls

The annual CSG Convention was delivered ‘just in time’ before the UK went into lock down with the global pandemic of Corona virus. Unfortunately, 7 of our International delegates’ travel plans were affected including one of our speakers. The event was still a fantastic success and the remaining 70+ attendees all had a great time in Wigan.

Jacqueline Heijmen Bennett-Leaver, moving Jost Borchering from the Friday evening to prime-time on Sunday morning.

This also gave an uninterrupted platform for Mike King to take centre stage on the Friday evening. We were very proud to welcome back Luiz Tencatt from Brazil who delivered two multi-catfish family talks, our very own Brian Walsh, and ‘Mr Panaqolus’ – Andreas Tanke.



l-r- Steve, Luiz, Andreas, Brian. Image by Ben Nicholls

The Committee made a decision to rejig the speaker programme, to fill the space vacated by



l-r- Markus, Allan, Jost, Rebecca. Image by Ben Nicholls

For some of our speakers it was their first public talk and for others, including Markus Kaluza and Rebecca Bentley their first at a CSG Convention. For all, they were rewarded with fantastic carvings by Brian Walsh as a reminder of their experience.



In response to feedback from previous Conventions, we included talks from Steve Grant and Allan James on non-South American catfish families, which were particularly well received.

The audience was notably attentive, attesting to the engaging talks and subject matter, I received a number of comments complimenting the CSG on a fine choice of speakers and topics covered.

The event was well supported by our sponsors including nature 2 aqua, ATS Aquashop and EBO-Aquaristik, who all set up stall bringing their goods from Germany. In addition, sponsors including FishScience, Maidenhead Aquatics, Pier Aquatics, Aqualife, Catfishes of the World, BSSW and Neil Hardy Aquatica donated goods to be included in goody bags, prize draws and auctions during the weekend, raising much needed funds to off-set the travel and accommodation costs of our speakers.



ATS Aquashop



G.B.W Products



EBO-Aquaristik



Nature 2 aqua

Of course, there were plenty of catfish to be seen with well stocked sales tanks in the Convention hall filled with tank bred fish from across Europe, many unavailable in fish retailers. Fish available included: L257, *Ancistrus patronus*, L136, *Corydoras eversi*, *Corydoras sipaliwini*, L500, L450, L065, L346, CW010 'red', L393, L513, *Corydoras oipoquensis*,

Corydoras coppenamensis, L038, *Corydoras boesmani*, *Corydoras gracilis*, CW021, *Corydoras venezuelanus*, *Synodontis batesii*, Coo3, *Corydoras incolicana*.

In these current times of uncertainty for all retailers, the CSG Committee wish all of our sponsors the best and urge our members to support them as much as possible.



Some of the sales tanks at the event



L177 Plec – Pier Aquatics



More of the sales tanks



CW127 – Aqualife

Special thanks are due to the local aquatic retailers who always provide the most hospitable welcome to our delegates. Pier Aquatics, Aqualife and Maidenhead Aquatics made an amazing effort to bring make some incredible new catfish species available. A few fish I was tempted by included *Chaca bankanensis*, *Corydoras* CW030 and *Trachelyichthys exilis*.



CW006 – Maidenhead Aquatics, Wigan

The Committee is now taking a well-earned break before preparing for its 42nd Convention in 2021, everything crossed we don't experience any other global disasters!



41st CSG Convention

13-15th March 2020

Speakers:

Top: Rebecca Bentley, Luiz Tencatt
Middle: Andreas Tanke, Brian Walsh,
Markus Kaluza, Jost Borchering,
Bottom: Mike King, Steven Grant,
Jacqueline Heijmen Bennet-Leaver,
Allan James



CATFISH STUDY GROUP

Kilhey Court Hotel,
Wigan, UK



***Hypostomus* L233 possibly identified**

Steve Grant



Hypostomus L233 was introduced by Schaefer (1996) in DATZ magazine. The author understands that the possible origin of the iconotype was the state of Goiás, Brazil. LDA09 appears to be a juvenile of the same species and that number was given to a specimen purportedly from the neighbouring state of Mato Grosso, Brazil. In some early writings it was thought that L233 represented *Hypostomus mutuae* Knaack, 1999, which was described from Rio Mutuca, Mato Grosso State, Brazil. However, that species has small spots on the head and fewer spots on the body, and LDA010 is considered to represent that species. So, since that issue was resolved L233 / LDA09 has remained without a species name. An import of this beautiful species by Pier Aquatics, Wigan led the author to ponder if it was already described.

Thankfully the author has a friend who is one of the world's leading *Hypostomus* ichthyologists – Dr Luiz Fernando Caserta Tencatt. Having sent these photos to Luiz and providing him with the state of Goiás as the purported origin, the author

asked Luiz if he knew of any described species from that state that matched L233. Luiz stated that he has collected several specimens that seem to match L233 in his state of Mato Grosso do Sul (which borders Goiás and Mato Grosso). These specimens are from the upper Rio Paraná basin. The specimens that Luiz has collected were identified as *Hypostomus hermanni* (Ihering, 1905). Rodolpho von Ihering described this species based on a 24cm TL specimen from the Rio Piracicaba, São Paulo, Brazil and named it after his father. The preserved specimen had a pattern described as “Traces of dark spots on the upper surface of the head. Dorsal fin with the posterior part of each interradial membrane dusky.” This could be due to the large size of the specimen and preservation. The flattened body, broad head, and broad oral disc and mouth match that of the holotype (see Morris et al., 2006) and that of the specimens caught by Luiz.



Mouth of L233

Because identifying specimens from photographs is difficult, particularly with no exact locality details, Luiz has advised that we should use the name *Hypostomus cf. hermanni*. Going forward it is possible that this species (and others) will not remain in the genus *Hypostomus* Lacepède, 1803 as the genus appears to contain clear morphological groups and could be split in the future.

Acknowledgements

Thanks to Dr Luiz F. C. Tencatt, Bolsista de Pós Doutorado at UFMS - Universidade Federal de Mato Grosso do Sul, for the possible identification

and information. Biodiversity Heritage Library (<https://www.biodiversitylibrary.org/>) and Eschmeyer's Catalog of Fishes (<https://www.calacademy.org/scientists/projects/catalog-of-fishes>) for their excellent resources.

References

- Fricke, R., Eschmeyer, W. N. & R. van der Laan (eds) 2020. ESCHMEYER'S CATALOG OF FISHES: GENERA, SPECIES, REFERENCES (<http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>) Electronic version accessed 24 Mar 2020.
- Ihering, R. von, 1905. Descriptions of four new loricariid fishes of the genus *Plecostomus* from Brazil. *Annals and Magazine of Natural History* (Series 7) v. 15 (no. 90) (art. 75): 558-561.
- Morris, P.J., H.M. Yager, [programmers] and M.H. Sabaj Pérez [editor], 2006. ACSImagebase: A digital archive of catfish images compiled by participants in the All Catfish Species Inventory. [WWW image Database] URL <http://acsi.acnatsci.org/base>

L233



EBO-AQUARISTIK



EBO Fish Foods
Nitrate Resin
Breeding Boxes
Decorations
Clay Products

WWW.EBO-AQUARISTIK.DE

SPIRULINA PASTE



-Special Rearing Paste

-Forms a film of food in the rearing box

-Optimal rearing of *Sturisma* and others
Catfish, Cichlids etc.

PROFESSIONAL SOFTGRAN MUSSEL



-Natural source of protein

-Well digestible and compatible

-Contains green-lipped mussel

-Proven for breeding *Discus*, *Geophagus*, *hypancistrus*, *Pseudacanthicus* etc.



Pier Aquatics, Great George Street, Wigan, WN3 4DL

<https://www.facebook.com/pieraquatics/>



01942 236661

One of the UK's leading suppliers of freshwater and tropical fish to both trade and general public



CATFISH

STUDY GROUP

Research Support Fund

To enhance the role that the CSG plays in supporting research into catfishes and to foster a closer relationship between scientists and aquarists, the committee proposed a Research Support Fund (RSF) be established in 2018. The RSF will provide small sums (e.g., £500) to students and other researchers to support fieldwork, museum visits, laboratory work and page charges in peer-reviewed journals. Award recipients will agree to provide two articles for the CSG journal OR present their research at a CSG event via poster or talk. Like any new program, the RSF is a work in progress and we welcome the input of subscribing members. Email us at: secretary@catfishstudygroup.org

Where does the money come from?

RSF awards will be drawn from journal subscriptions, advertising revenue, member and corporate contributions, back issue purchases, donated auction lots and other fund-raising activities.

How often will we make awards?

We will invite applications on an annual basis in September, with the successful applicant(s) being announced via social media and at our annual convention the following March. Closing date for applications is end of February. Application form: <https://www.catfishstudygroup.org/rsf/index.php>

Who is eligible to apply?

Open to students and junior researchers. The committee discussed opening the competition to advanced aquarists, and we may try this in the future. But for now, we will invite applications from those enrolled or working with catfishes in a registered school, university, research institute or natural history museum. Applicants must be at least 18 years old at the time the award is made.

What items, services or expenses should the award be used for?

Awards will be used to offset travel costs for fieldwork (e.g., specimen collecting, museum visits or environmental measurements), equipment purchases (e.g., nets, meters, cameras, lenses, aquaria, lab consumables, software licenses, etc.), services (e.g., DNA sequencing and genome assembly, page charges in journals) and possibly the purchase of specimens (e.g., for observation, DNA samples, etc.).

What do we need in an application?

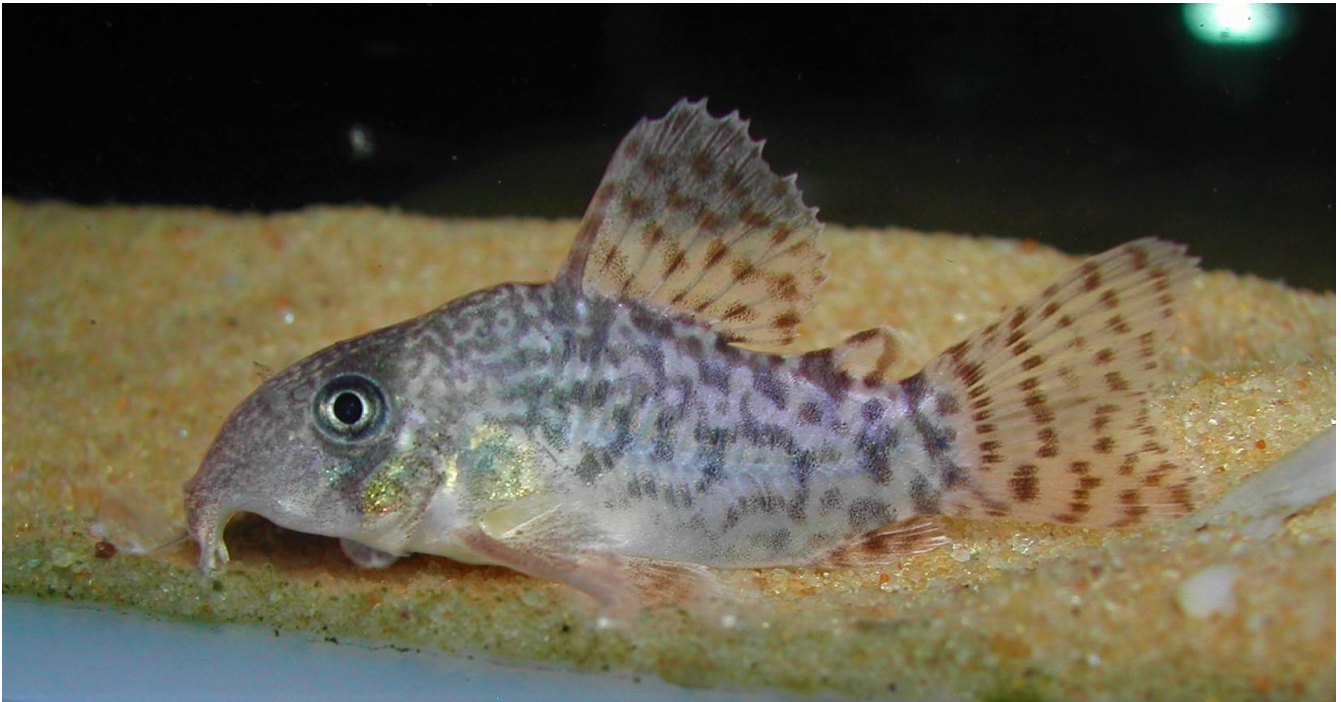
The application will involve completing an electronic form available from the CSG website. The form will include a brief description of the intended research project or trip, an itemized budget and a brief explanation for how the award will enable or enhance the work.

How will applications be judged?

The committee and invited reviewers will independently review applications and assign scores on the basis of their merit, feasibility and appeal to CSG members. Scores will be assigned, and the highest ranked application(s) will be funded in full or to the maximum amount available. None, one, or more than one application may be funded during each cycle. If no applications are received or less than the maximum amount is awarded, the RSF will transfer funds to the next cycle and increase the number or size of awards accordingly. Finally, in order to receive the award, the successful applicant must agree to provide two articles for the CSG journal describing their project, its results, and how the award helped them in their work, or a talk or poster to be presented at a future CSG event.

Tank bred *Corydoras* CW155 in the UK

Steve Grant



Juvenile CW155 approx. 2.5cm TL

CW155 is a lineage 8 'Ancestor' *Corydoras*. Up until the author's article in this journal (Grant, 2019) it was considered that there was one 'Ancestor' *Corydoras*, CW004. Grant (2019) showed that there are three Ancestor morphotypes: CW004 – a lineage 9; a lineage 8, and one that had an unusual snout that the author could not be certain what lineage it fell into (possibly lineage 1 but there are some profile differences). As a result, shortly after, Ian Fuller designated the code CW155 for the lineage 8, and CW156 for the third morphotype.



Cw156



CW155

All three of these species come from the Rio Tapajos drainage, Brazil. Because they are undescribed, it is illegal to export specimens from Brazil. However, despite this a number of specimens have made it into the tanks of a select few hobbyists in the USA, Europe, Taiwan and Japan. Whilst this is a breach of Brazilian law and is a sensitive subject, it does mean that aquarists can try and breed them. If this is possible it reduces the demand for wild specimens and may afford some protection for their numbers in the wild. In 2019 a very small number of aquarists bred CW155. CW004 may have been bred but they could be CW155 misidentified. The author is not aware of any spawning of CW156.

Some tank bred fish from the 2019 import were available at Pier Aquatics, Wigan during the CSG Convention 2020. Two of the juveniles are shown here. As can be seen from the title image, the dorsal fin is quite high, even in small specimens, just like that of the iconotype of CW155 shown at the bottom of page 25.

Whilst the specimens have not yet matured, the snout looks like a lineage 8 *Corydoras* even at this small size.

Hopefully these specimens can also be bred and further help to reduce the strain on the wild population.

Another way to assist in the study and preservation of the Ancestor *Corydoras* (and several other undescribed ones from the same region) is for aquarists to crowdfund a collection trip by CSG Convention 2020 speaker Dr Luiz Tencatt and his two colleagues. Anyone willing to fund the expedition can do so by:

1. Paypal to luiztencatt@hotmail.com or
2. Paypal on the Corydoras World Research Assistance Programme page at <https://www.corydorasworld.com/knowledgebase/research-assistance-programme>



CW155 juvenile approx. 2cm TL

References

Grant, S., 2019.
Corydoras CW004.
 Journal of the Catfish Study Group, Vol. 19, Issue 1 (March), pp. 8-11.



CW004. Image by Oliver Lucanus.



Top CW004. Image by Wei-Chieh Tseng
 Middle CW155. Image by the author
 Bottom CW156. Image by Hopesun Shen

Hovering behaviour in *Corydoras* CW006

Steve Grant



Corydoras CW006 hovering

Corydoras CW006 is a personal favourite of the author. As it shares a similar pattern with *Corydoras granti* Tencatt, Lima & Britto, 2019 then the reader may think that is the reason why. Ok, this is part of the reason but actually it is because they are a very beautiful species, but also because they exhibit some unusual behaviour for a lineage 8 *Corydoras*.

Below is a list of the genera of Corydoradinae that are currently valid, or are in general usage with aquarists:

- a. *Corydoras* Lacepède, 1803
- b. *Aspidoras* Ihering, 1907
- c. *Scleromystax* Günther, 1864
- d. *Brochis* Cope, 1871 (currently a synonym of *Corydoras*)



Corydoras granti, female

Before this is discussed it may be useful for some readers to clarify what is meant by a lineage 8 *Corydoras*, as this will give some context about why, what the author has called 'hovering', is unusual.



Brochis imported as *B. britskii*

The lineages refer to those outlined in Alexandrou et al, (2011) who proposed a phylogenetic tree for Corydoradinae. The tree is an attempt to depict the evolutionary

relationships among the subfamily. Each 'branch' of the evolutionary tree was referred to as a lineage and given a corresponding number, rising numerically from 1 to 9, based on the possible order in which the species of the subfamily have evolved from each other.

Lineage 1 is thought to be the oldest and those species already have a genus name: *Corydoras*.



CW073 female – a lineage 1 true *Corydoras*

Aspidoras and *Scleromystax* represent two more of the numerical lineages, and there are some available generic names that could possibly be resurrected for some of the other lineages.



Aspidoras albater



Scleromystax CW038

However, if some of the lineages are proven to need a different genus name to the three aforementioned genera, they will need new names describing. One of the most complicated of the nine lineages is lineage 8. If the species grouped in it by Alexandrou et al. are in the future proven to be distinct from *Corydoras*, some of the species currently placed in lineage 8 would fall within what aquarists call *Brochis*, but many do not (as they have 7 soft dorsal rays).

This is a problem for another time and for the ichthyologists to resolve. However, it is important to know that CW006 currently sits within lineage 8 with 'Brochis' and also corydoradins with 'straight' snouts (or "Intermediate long snouts" in the paper) and 7 soft dorsal rays. What is interesting though is that within subclade 4 of lineage 8, CW006, CW013, and C052 are all grouped close together. Based on their appearance it is possible that C098, C138 and CW072 may also belong in this small group. So, what is relevant about all this evolutionary science in relation to this article? The author is not aware of any other lineage 8 species that regularly 'hover', except possibly *Corydoras pantanalensis* Knaack, 2001.



Corydoras C098

What does 'hovering' mean? All corydoradins appear to be able to maintain their position in the water column, above the substrate, by using a combination of body movement and fin movement. They will tend to do this when manoeuvring for a particular reason e.g. to avoid another fish or predator, to feed, spawn etc. Most lineage 4 species e.g. *C. hastatus* Eigenmann & Eigenmann, 1888 regularly hover for extended periods of time, with no obvious behavioural drivers. Some lineage 5 species also do this, although to a lesser extent. The author

kept CW006 and noticed that in a tank with no species to spook them, or without having to look for food, regularly hovered in the water column, some in groups of a few or all the specimens in the group.

Videos of the hovering can be seen at:

<https://www.youtube.com/watch?v=hcg45PlwHjs>

And

<https://www.facebook.com/THE.D4RK.ONE/posts/10216876358809823>

CW006 appear to not use sinuous head and body movement to hover, but by alternating the closing and opening of the pectoral fins (as one fin opens outwards the other closes towards the body), alternating sideways movement of the upper and lower caudal fin lobes, alternating opening and closing of the ventral fins, and sideways movement of the dorsal fin in tandem with the alternation of the pectoral fins.

The author at first considered that this may be due to his specimens not being happy with the water conditions in the tank. However, after recording the second video above of another group in Lincs Fish aquatic shop, and finding several YouTube videos from aquarists in different countries, it became apparent that it was not an isolated occurrence. Through the author's Facebook group (Catfishes of the World) other aquarists have confirmed that their CW006 also regularly hover.



Corydoras CW006 hovering

Possible causes

Like with lineage 4 species, this could be a natural behavioural trait. Little is known about the water and biotope conditions of where CW006 occur in the wild. It may be that the water is rich in sediments, or has a high flow (or the opposite of both examples) and that these conditions may not be getting replicated in aquariums. The author suspects it may have something to do with turbidity as in the cases he has seen, the aquariums have little or negligible water movement. One keeper said his don't tend to hover and generally stay on the substrate in the flow of the water. It is difficult to be certain whether they hover in the wild, or whether they are hovering because they are not being provided with the conditions they have evolved to live in.

Alternatively, it could be that they are sensitive to problems with the substrate or the water conditions in an aquarium closed system, and that the hovering is a stress reaction. This is less likely in the author's opinion.

References

Alexandrou, M. A. et al., 2011. Competition and phylogeny determine community structure in Müllerian co-mimics. *Nature*, vol. 469, p 84-89, Supplementary Information 1-2



ANNUAL CSG OPEN SHOW...

Sunday 20th September 2020

**Derwent Hall, George Street
DARWEN, Lancs BB3 0DQ**

Benching: 10.30 am – 12.30 pm

Judging: 1.00 pm

Public viewing from: 12.30 pm

No entry fees

Prizes and place cards for all classes

Any questions, call Brian Walsh on 01254 776567

... and AQUATIC AUCTION FREE ENTRY

CSG Sales Commission 15%

Booking in from 10.30 am – Start 1.00 pm

Book your lot by email chairman@catfishstudygroup.org or via [CSG Facebook page](#)



CATFISH STUDY GROUP OPEN SHOW RULES

Submission of an entry implies acceptance of all of the rules.

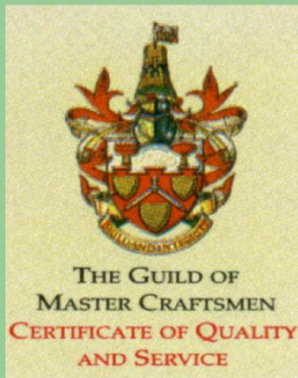
1. Fish will be judged to Catfish Study Group Show Size Guide
2. Fish will be exhibited in clear, flat-sided containers, the smallest of which will be 100mm x 100mm x 100mm. Jars will not be accepted. Exhibitors are requested to label their show tank with the Latin and/or Common name of the fish.
3. Gravel/Sand is allowed. Aeration may be used.
4. Show tanks must be of sufficient size to allow fish to swim and turn. Exhibitors may be disqualified if the fish is poorly presented, in poor or cramped conditions. Fish will not be fed on the show bench.
5. Breeders teams will consist of four fish, minimum age three months, maximum 15 months. Date of hatching and name of species must be shown on tanks.
6. Entries may not be moved, or interfered with once judging has commenced, except by order of the Judges or the Show Secretary.
7. Debenching is not allowed until the Show Secretary makes the announcement, except by prior arrangement with him.
8. The show organisers reserve the right to re-bench any fish into their appropriate class.
9. Photography of entries will be permitted after judging is completed.
10. Time will be allocated to allow viewing of the judges' decisions.
11. The Judges decisions are final. Judging sheets will be displayed in the hall.
12. Any complaints, comments, etc., should be directed to the Show Secretary.
13. No prohibited fish can be displayed or sold at CSG events e.g., Ictaluridae, *Tachysurus*, *Siluris glanis*.

Whilst every care will be taken, the Catfish Study Group will not be held responsible for the loss of or damage to fish, equipment, or persons.



G.B.W

Products & Services



**High Class Joinery
Furniture
Wood Carvings
Commissions Undertaken**

Contact

Brian Walsh

Tel: (01254) 776567

Mob: 07977 428 788

Email: g.b.w@live.co.uk

