

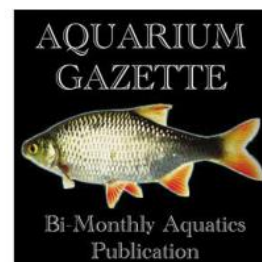
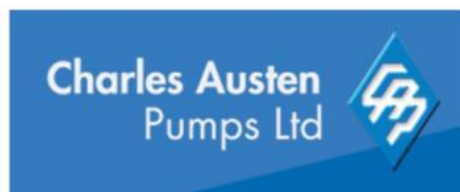
# Journal of the Catfish Study Group



September 2021

Volume 22, Issue 3

**In this edition: Breeding *Peckoltia* L076; Collecting, eating and keeping *Pimelodus*; Guiana Shield *Corydoras*, Breeding *Corydoras desana*.**





## Contents

Chairman's Report	5
Spawning L076	6
Collecting, eating and keeping <i>Pimelodus</i>	10
<i>Corydoras deweyeri</i>	16
Breeding <i>Corydoras desana</i>	21
Sexing Loricariidae – a different way	26
CSG auction and show rules	30

Cover image: *Corydoras* CW138. Photo: Wei-Chieh Tseng

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Convention 2022 logo – *Corydoras fulleri* original artwork by Ian Fuller, courtesy of Corydoras World





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## Chairman's Report - Mark Walters

It is exciting to have actual meetings to look forward to over the coming months. The Journal has information about three opportunities for catfish keepers to come together, with the September CSG Open Show and Auction, November's *Corydoras* World 'Cory-Fest' and of course the 2022 CSG Convention! Interspersed will be other aquatic events as we look to get back to some sort of normality.

The Committee have worked behind the scenes to organise events with some financial risk for the club if the situation changes for the worse. As always, the Committee carries out its duties on behalf of our members in an entirely voluntary fashion. This includes supporting and informing members and non-members alike through the amazing information pulled together in the Journal, and daily interactions on its social media platform helping aquarists provide the best care and conditions for their catfish so we can all benefit from the knowledge of our shared experiences. Our committee, and indeed all of our members, are a great bunch of people who will gladly take the time to chat about fish at our meetings and on social media imparting their knowledge freely – it's how we all gained experience and how we developed connections and friendships. A massive thanks must also be given to our Journal contributors who freely put pen to paper, take amazing photos of their fish and give up their breeding 'secrets' for no financial return.

As Convention manager, I have canvassed the Committee to shortlist our speakers for the Convention in March. We have deliberately held off announcing arrangements for obvious reasons, but are now confident enough to formally advertise! Thank you to all those who have accepted the invitation to share your knowledge and experiences. Things can and probably will change so there is a hint of caution still to be applied. All being well, bookings for the Convention will open on November 1st. I am also proud to announce the Convention emblem for

2022 – *Corydoras fulleri*, a clue to at least one of our invited speakers!

The same care has been made with the Open Show where we have reduced the classes down to reduce personal interactions between show people and make as much space available in the show room as possible. We expect to be fully back to normal in 2022 with a full-class Open Show. We have been generously sponsored by Fish Science who have provided prizes for all placed entries. I am looking forward to the event and opportunity to move on a few of my surplus fish and no doubt come home with more new fish!

It is also that time of year when the necessary process of reviewing our rules and governance is considered through the annual general meeting in January. I do not anticipate any significant changes to Committee posts at this stage (2023 is the next shake up!), but if there are any members who want to be more involved in the running and organisation of the club, please drop me a message. Similarly, if there are any proposals for amendment to the constitution, please send them to me by 31st October, so that the formal process of consultation can take place.

Enjoy this latest Journal, there are some great articles. I'm sure there will be something to interest each of you and provide you with information you didn't already know about catfish!



Ian Fuller

Mark



## Experiences with the Gold Seam Pleco – *Peckoltia* L076 / L099

### Mark Walters



*Peckoltia* L076 / L099. Image by Ralf Heidemann. All other photos by the author unless indicated.

I have kept and bred many plecos over the last 20 years including plenty of species from one of the most suitable genera for aquarium keeping. The genus *Peckoltia* includes many firm favourites in the aquarium hobby including the leopard frog pleco – *P. compta* (L134) and numerous forms of the candy stripe pleco – *P. cf. vittata* (L015). The group has much to offer, with interesting colouration and patterns, sexual dimorphism in the form of very heavy odontodal growth in mature males and a range of sizes to suit all tastes, generally with species from 7cm up to 20cm+. Falling between these size ranges are a group of *Peckoltia* which includes some of my favourites – the wormline plecos of the *P. braueri* complex and the subject of this article, which has yet to be formally described to science and is only recognised by its L-number designation.

I tentatively group the gold seam pleco with the *P. braueri* complex based on morphological similarities. The *P. braueri* complex includes true *braueri* (L121 and L305), a very similar (but slightly larger) species L135, L265 (Tapajos orange seam) and *Peckoltia cavatica*, I also

support L076/L099 as a close relative of this group. These plecos share a similar adult size between 11-14cm SL. *P. braueri*, L135 and *P. cavatica* share wormline patterns on the snout. *P. braueri*, *P. cavatica*, L265 and L076/099 share a gold seam edging the dorsal and caudal fins (unbroken by other bands). In his article on the different *Peckoltia* 'wormline' forms, Steve Grant suggests that L265 and L076/L099 could be forms of the described species *P. cavatica* (Grant, 2011).

You will have noticed my reference to two L-numbers for the gold seam pleco – this is down to the differences in shading exhibited by collected forms of the species, L099 being considered as a lighter shaded form of the same fish (Seidel, 2008). After studying the fish in the aquarium, it is clear that the species exhibits light and dark colour phases, dependant on external stress factors. The males exhibit much darker colouration when in breeding condition. Generally, the females maintain a lighter colouration. In the conventional sense, for

species assigned duplicate names of numbers I will continue to refer to the species using the earlier L-number L076.

L076 first came to my attention around 2008 with the publication of Ingo Seidel's invaluable guide to L-numbered catfish, I had a few *Peckoltia* species in my tanks and was looking for new challenges, the wormline plecos stood out to me and I managed to acquire groups of L135 and L121 over the next few years. It wasn't until 2014 however, when I finally saw some adult L076 advertised for sale, their coal-black body colour with bright orange seams to their fins was an obvious enticement.

My experiences with the wormline plecos encouraged me to buy the fish and I ventured into my first online purchase of fish, to be sent by post. The shop only had two fish available and thankfully they were a pair. They arrived safely and were soon settled in a centralised system with other *Peckoltia* and *Panaqolus* species. I came across a third specimen (probable male) offered by a fellow aquarist a few years later and added it to the existing pair.



*Peckoltia* L076 adult female



*Peckoltia* L076 adult male

Although clearly adult fish, the group showed little sign of reproductive behaviour over the years and I moved them into different set-ups to see if a change in accommodation would encourage them.



*Peckoltia* L076 adult female (above) male (below)

After a few more tank changes resulting in more spacious surroundings for the by-now 15cm fish, roll-on another 6 years in 2020 when I discovered a male sat on a clutch of eggs. The time of the spawning in early summer, coincided with an increase in tank temperatures and influx of HMA water on a drip system. Over the coming months the fish would spawn on 2 further occasions.

One happy trait of *Peckoltia* I have observed through spawning 6 different species, has been the effective brood care from the male. L076 were no exception and the male did a great job of caring for the eggs and early fry stage. I did decide to harvest the fry after a few days, to enable a few images to be captured.



Fry aged 1 day



The fry were subsequently raised in a floating ring with airflow and some oak leaves and bogwood for cover. After a month, the fry were moved to a suspended fry raising tank, before finally moving to their own tank after 8-10 weeks.



Fry aged 2 days



6 weeks old



8 weeks old

With the suspension of any aquatic auctions and restrictions on travel during the Covid pandemic, I have kept all the young from 3 spawnings for a full year, resulting a lively tank full of swarming gold seam plecos. Still rarely available, I'm sure they will be popular amongst avid pleco keepers

and I hope to make them more available as restrictions are lifted.



3 months old



1 year old





Thick dorsal and caudal seams at 1 year old



Thin caudal seam in adults



Ventral view – Ralf Heidemann

## References

Grant S. 2011. Wormline Peckoltias (Siluriformes, Loricariidae). Journal of the Catfish Study Group. Volume 12 issue 1.

Planet Catfish, Cat-e-log.  
<https://www.planetcatfish.com>

Seidel, I. 2008. Back to Nature guide to L-Catfishes. ISBN 978-91-89258-11-2

Walters, M. 2014. Catfish by Post! Journal of the Catfish Study Group. Volume 15 Issue 3.

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# Collecting, eating and keeping *Pimelodus*

Daniel Konn-Vetterlein



*Pimelodus tetramerus*. All images by Daniel Konn-Vetterlein

They are active, pretty looking and are easy to keep: *Pimelodus* Lacepède, 1803. Currently there are 36 valid species in the genus (Fricke et al., 2021), plus some undescribed ones that are only slightly known so far. Unfortunately, only very few species are imported, and only one of them regularly. This seems to be enough for the trade, a pity, because *Pimelodus* are excellent aquarium fish and very easy to care for if you offer them a large tank. Especially for friends of predatory fish, they are a good alternative to the many predatory catfish that grow very large.

Only the "pictus catfish", *Pimelodus pictus* Steindachner, 1876, is well known and this species is part of the standard assortment in every pet shop. In the trade you can even find two slightly different varieties. The imports from Peru have large, relatively few spots, while the individuals originating from Colombia have several small dots, which do not stand out so clearly from the basic colour. All other species are only available from specialised dealers. Besides *P. ornatus* Kner, 1858, also *P. albofasciatus* Mees, 1974, *P. blochii* Valenciennes, 1840; *P.*

*mysteriosus* Azpelicueta, 1998 and *P. maculatus* Lacepède, 1803 are imported from time to time. *P. ornatus* is, after all, quite popular with predatory catfish enthusiasts and, after *P. pictus* certainly the most kept species.



*Pimelodus mysteriosus*, Paraguay

*Pimelodus* are an immensely successful predatory catfish genus, as they have spread over the entire tropical part eastwards of South America. Some species also live in the subtropics. *Pimelodus pintado* Azpelicueta, Lundberg & Loureiro 2008 from central Uruguay is one of the southernmost described species. The northern



limit of the distribution area is in Panama. There, close to the Colombian border, *Pimelodus punctatus* (Meek & Hildebrand 1913) can be found. And even though this species is not commercially available, one occasionally sees the name on lists. This is due to the fact that in South America everything that shows even a hint of dots is often called "punctatus". The main distribution is - as so often - in Amazonia, where most of the known species are from. Unfortunately, even the current valid species are anything but easy to identify since their colouration and pattern is so variable.

### Field observations

Let's move on to observations in the biotopes of these predators. *Pimelodus* are distinctly white-water fishes and are rarely found in clear water. They inhabit the large rivers that flow rather sluggishly and prefer a muddy - sandy bottom. In this type of water, they benefit from their long barbels, with which they can orientate and navigate perfectly.



Swimming meadows in the Río Ibare are home to juvenile *P. maculatus*.

The barbels are controlled independently and thus enable the catfish to have a sensitive sense of touch, which can also be observed in the aquarium. Often the barbels reach about the length of the catfish and then extend to the caudal fin. When at rest, they are positioned close to the body and move very little. As soon as the catfish start swimming, however, the barbels shoot forward, glide over the substrate and feel everything in front of them.

There are reports of juveniles gathering in large shoals and moving through the rivers, but this

behaviour seems to subside in adults. While juveniles can be caught in large numbers, adults usually end up alone in the net. I have already been able to catch a few species myself and the larger the animals were, the larger the radius in which the next specimen could be caught. Young *P. albofasciatus* (~10 cm), for example, can be caught in small groups, whereas adults (~25 cm) are loners and seem to occupy territories. While the young catfish often live near the surface of the water and hunt smaller tetras in floating meadows and the bank, adults retreat to deeper areas.



*Pimelodus* cf. *albofasciatus*



Nothing else needed other than this view and the chance to collect *Pimelodus*

*Pimelodus* spp. are mainly active during the night-time and will often not come out to the riverbank and the open water column at daytime. While one might think that a river doesn't house any *Pimelodus* spp. – and in general no or very

few *Pimelodids* – the very same river can turn out to be full of the small predators at night. Different collecting methods are also of essential need to succeed in the long term. Large nets are serving well to catch juveniles, while adults are easier to catch with a fishing-rod.



Collecting *Pimelodus* spp. with a throwing net works best from the river bank

### Plenty of space and fine substrate

*Pimelodus* are keen swimmers. They need large tanks with an edge length of at least 150 cm and a floor space that does justice to their urge to move. Adults naturally need larger tanks, depending on the species. Most species are fully grown at 20 - 25 cm, *P. ornatus* even reaches up to 30 cm. *Pimelodus* are not loners, as they are unfortunately usually sold as in pet shops, but group fish. Only in a group of six, seven or more they start showing their natural behaviour. Then they swim actively through the tank and show themselves to be extremely keen swimmers during the day. However, every aquarist sees things a little differently, and you get different recommendations when you ask about stocking density. My definite experience is that the catfish are more active in a group, although they do not become hectic, but swim calmly and united through the aquarium. The so-called "keeping in pairs" of two specimens - arbitrarily selected in the trade - is again counterproductive. You can often observe that they will both occupy one half of the tank and spend more time in their hiding places than if kept alone. I currently keep a group of 13 specimens of different species together and can never observe any serious fights between them. There is constantly something going on in the tank though because someone is always

looking for food. Especially after water changes, all *Pimelodus* will move through the tank together, interrupted by short chasing scenes, which luckily never look serious. *Pimelodus* are sometimes very skittish, for example if the group is too small or the tank is too freely decorated and there are not enough hiding places. You can reduce the catfish's restlessness by adding large surface fish, which signal to the catfish with their behaviour that there is no danger and obviously by restructuring the tank.



*Pimelodus* cf. *jivaro*

In addition to sufficient swimming space, it is also important to provide enough hiding places. Dark shelters in the form of wood are particularly suitable for this. Clay pipes open on both sides are not as visually appealing, but they are all the more popular with my catfish, who like to rest together in them during the day. Whatever you choose, furnishings should not have sharp edges so that the catfish do not injure themselves. Especially when they get scared, they often shoot uncontrollably through the tank and then quickly injure themselves on sharp edges. In this case, it pays to have a large tank where the animals have space, can move freely, and are not directly slowed down by some glass. *Pimelodus* kept in tanks that are too small will develop a red snout rim after a while, a sign that they keep coming into contact with the glass.

The substrate choice is certain; it has to be fine and must not have any sharp corners or edges. When feeding, *Pimelodus* bend slightly forward, the snout sliding over the substrate. Sharp gravel



can cause serious damage to the whiskers. If you do not use any substrate at all, as it is often the case in Asian tanks, the barbels will be damaged by bacteria that form on the bare bottom. In both cases the barbels grow back completely, but without barbels a *Pimelodus* catfish is like a blind man without his stick. I once had to keep a group of *P. tetramerus* on pure glass bottom for a fortnight. One specimen lost almost all its barbels except for the last centimetre. This individual was visibly disadvantaged when feeding, swam around more hectically than the rest of the group and was less successful. It neither knew where the food was nor was it resting in the clay cave with the others. When I noticed this, it occurred to me that the barbels might be useful for much more than "just" orientation. In a group, they probably also serve to communicate with each other. And if you look at a group of *Pimelodus* resting together for a while, you will notice that one or two pairs of barbels are "swung around". The associated individuals change, but someone is always busy swivelling. After I could finally move the catfish, the barbels had grown back to full length within three weeks. After a month, I could no longer distinguish the specimen from the previously harmed rest.



*Pimelodus* cf. *blochii* from Rio Bacajai

*Pimelodus* species are mainly carnivorous, i.e., they are carnivores and absolutely need animal food. This includes mussel meat, fish fillets or mosquito larvae and other frozen foods. They also like to eat pellets, granules, and tablets. In fact, anything that fits into the mouth without problems is greedily gobbled down, even if it is a

spirulina tablet. Pieces of food that are too large, for example white fish, are a choking hazard that should not be underestimated. This is evident when caring for specimens of different sizes. If small animals eat a piece of food that is not intended for them, they will swim around in the tank with food peeking out of their mouths. Most of the time they manage to spit the food out again or even swallow it. In an emergency, you must catch the catfish and free it from its prey, but this inevitably ends in a stressful situation. Since these catfish will eat if food is offered, it is important not to feed too much. Granules and tablets should either already be soaked before feeding or only be fed in small quantities, because otherwise they swell in the fish's stomach and inflate the catfish like a balloon. You might think that you are doing the catfish some good with a steady supply of fish fillets, but this is not necessarily the case, as the water quality suffers considerably as a result. I feed mainly smelt, shrimps and frozen food, only rarely fillet. Small fish are considered food, as are small shrimp and even some snail species. However, if you pay a little attention to the size relation of the by-fish, this is an easy problem to circumvent. Anything that is at least a third of the size of the predatory catfish is ignored by them. If the catfish are well fed and are not under pressure to move, they will spare even potential prey fish. Only if you don't feed them for a few days do they remember their hunting abilities. I kept a group of *Metynnis hypsauchen* with my *Pimelodus* for a long time, during which time the catfish were always active and foraging.

Said again and again and yet often done wrong: Catching a *Pimelodus* catfish. The animals must not be netted but are best caught with a bowl or Tupperware. The fin rays get caught very quickly in nets, leading to tears in the fin and a bloody hard ray. The fin will regenerate, but in the worst-case scenario an infection will occur.

As soon as they feel stressed, the catfish start to growl. The same can be heard when they clash and fight over territory. Pirotte (DATZ 06/1991) has already noticed the growling, but he could not classify this behaviour. He also points out the considerable volume that can be achieved. My *Pimelodus* tank sometimes makes astonishingly

loud noises at night, which, with interruptions, often last for a few minutes. The noises occur when the pectoral fin rays move in the joint socket. Generally, they are very peaceful among themselves. In *P. ornatus* and occasionally in other species, however, it has been observed that fierce quarrels can occur, apparently, they then try to bite each other. However, they do not suffer any injuries. Again, it pays off if you have a large tank and can offer enough territories.

### Spawning migrants

It is relatively easy to distinguish between the sexes based on the body proportions of adult individuals. Males are more slenderly built and remain somewhat smaller than females. The females become fuller and larger. Experienced aquarists can also tell the difference by looking at the genital papillae. Males have a rather oval opening, while that of the females is almost circular. Unfortunately, selective reproduction has not yet been successful. However, there are reports (oral communication) that there have already been accidental reproductive successes. According to these reports, the parents spawned in a very dense stand of *Vallisneria* sp., where the young catfish also grew up.



*Pimelodus cf. argenteus*

Some aquarists have already done their best on *P. pictus*, but so far without any notable success. It is not yet known how this species can be stimulated in the aquarium and reproduced. In DATZ 05/1991 Schöhs reported that he had led his individuals to the courtship process with the help of a hormone (chorionic gonadotropin). After the hormone administration he could observe a "nudging in the anal region". However, the supposed female died shortly afterwards.

Such experiments should be avoided in the hobby and should only be carried out under controllable conditions when the necessary knowledge is available.

In the wild, *Pimelodus* are spawning migrants, as are the larger relatives *Pseudoplatystoma* Bleeker, 1862 and *Brachyplatystoma* Bleeker, 1862. They gather in large shoals at spawning time and then move upstream to their spawning grounds. During one of my trips to Bolivia (September 2012), this behaviour was explained to me by local fishermen. We travelled to the Río Blanco in the department of Santa Cruz, where I had been able to catch beautiful *P. ornatus* as well as large (and tasty) *S. lima* on a previous trip. We tried again but were unsuccessful, at both, during the day and at night. My enquiry with the local fishermen revealed that they were not catching any of the catfish we were looking for now either, but they were not surprised and explained to me at length where the catfish were now and that they were always spawning upstream at this time. In total they would be gone for about two weeks and then return. I had often heard about spawning migrations, but this was the first time I had the chance to "experience" it myself. As luck would have it, we passed through the village again after four weeks when we returned from another trip. I went back to the fishermen who meet night after night at the same bench on the central plaza, and as expected, they all reported unanimously that the predatory catfish were back.

A few years ago, I tried my hand at reproducing *P. pictus*, but it didn't work, despite a safe pair and two different attempts. The first approach corresponded to the dense *Vallisneria* sp. "forest" described above, in the hope that some eggs could be saved in a potential spawning event. For the second approach, I prepared a nearly empty tank with only a clay pot over a bowl of marbles as a spawning trap, like what is done with *Synodontis* spp. Both attempts were unsuccessful, but in the meantime, I know more about the water parameters and other conditions at spawning time in Bolivia, and sooner or later individuals from my group will have to prepare themselves for a new approach.



There are some secrets left with these pretty catfishes and it would be desirable if there would be a similar interest in this genus as there is in other catfish genera. I can recommend them to any aquarist who has a large tank. You don't find many predatory catfishes that are so active, attractive and stay small.

### Some different field observations

In 2015 the editor of this journal and myself were dependent on the success of a self-proclaimed professional angler.



Río Surutú, Bolivia



*Pimelodus cf. blochii* from Río Surutú



*Pimelodus cf. blochii* serves well as an energy boost to be able to collect more *Pimelodus*

He succeeded indeed and thanks to Richard we got served a nice dinner. One part consisted of an adult *P. cf. blochii*, which didn't taste too bad, alongside *Sorubim lima* and *Megalonema platycephalum*, honed with fresh lime juice.

### Literature

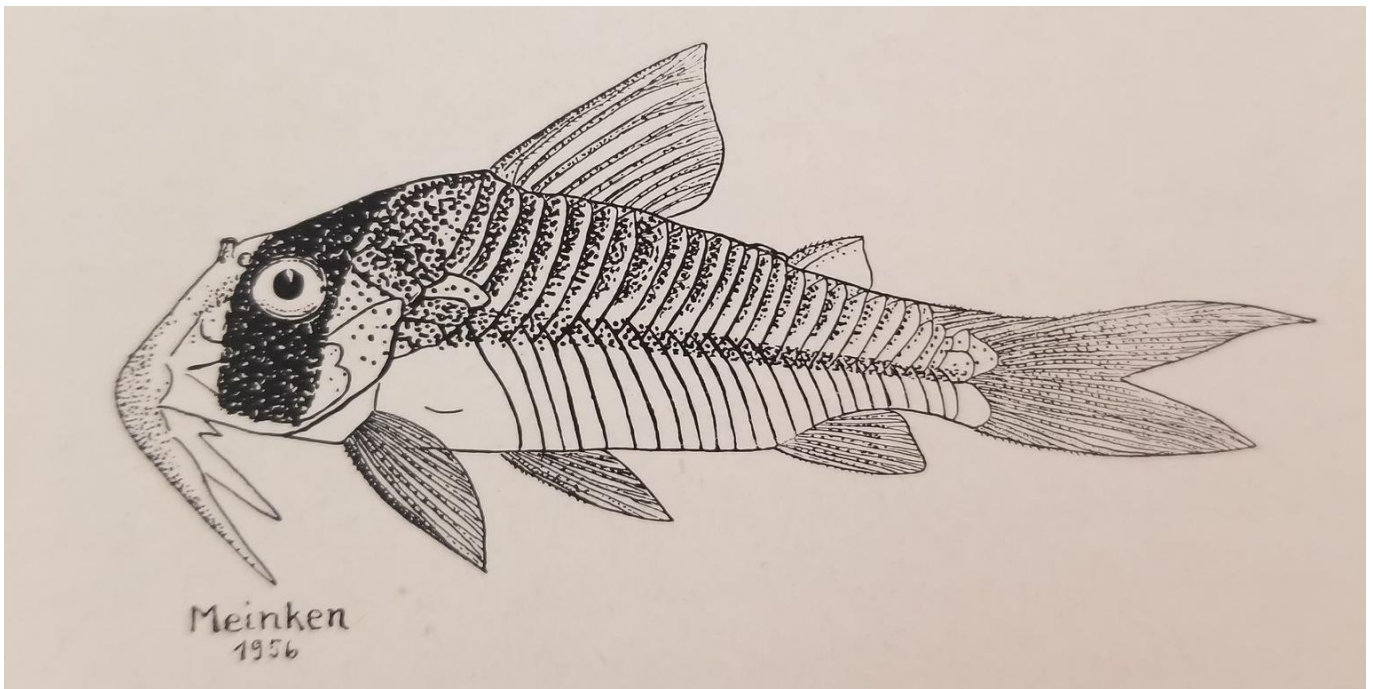
Fricke, R., Eschmeyer, W. N. & Van der Laan, R. (eds) 2021. ESCHMEYER'S CATALOG OF FISHES: GENERA, SPECIES, REFERENCES. (<http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>). Electronic version accessed 18.08.2021.

Schöhs Berndt, DATZ 5/1991: *Pimelodus pictus*, leider kein Zuchtbericht.



# ***Corydoras deweyeri* Meinken, 1957 – a valid Lineage 8 species, with comments on the identity and type locality of *C. griseus* Holly, 1940**

**Steven Grant**



Original drawing of *Corydoras deweyeri* from Meinken (1957) – which is hereby identified as the lectotype

## **Introduction**

*Corydoras griseus deweyeri* was described by Meinken in the German aquarium magazine DATZ (Meinken, 1957), originally as *de weyeri*. The description was based on aquarium specimens that had been imported by Aquaria Antwerp in the spring of 1956 from Guyana. It was described as a subspecies of *Corydoras griseus* Holly, 1940 and named after the owner of Aquaria Antwerp, Mr. Van de Weyer. The two preserved type specimens were eventually deposited in the Zoological Museum, Hamburg, Germany.

Nijssen & Isbrücker (1967) designated specimen ZMH 1186 as the lectotype, and postulated that it could be synonymous with *C. griseus*, but as the holotype of *C. griseus* is lost, did not synonymise it at that time. Nijssen & Isbrücker (1980) designated it as a junior synonym of *C. griseus* Holly, 1940. *C. griseus* appears to be a lineage 9 or 6 species and was originally described from “small and smallest watercourses” “near the Amazon stream”. Holly in Holly, Meinken & Rachow (undated) later added the country Brazil

to the description of the type locality, but following the synonymy of Nijssen & Isbrücker (1980), Guyana became the purported location of *C. griseus*.



Drawing of *C. griseus* holotype alive from Holly in Holly, Meinken & Rachow (undated)

## **Findings**

The author has obtained photographs of the type specimens of *C. griseus deweyeri* from the ZMH. The lectotype (ZMH 1186) clearly has a different (more extended / less rounded) snout shape to the paralectotype (ZMH 1187) despite the former being only 3.5mm larger than the latter.





Lectotype of *C. deweyeri* ZMH 1186. Universität Hamburg

The lectotype has serrations on the dorsal fin spine all pointing to the base, and serrations on the pectoral fin spine also pointing to the base. Based on the diagnoses for lineage 8 and 9 species (Tencatt *et al.*, 2019) this serration pattern would not fit lineage 9. The author has checked for some of the characters for lineage 1 species (Tencatt *et al.*, 2020) and the lectotype does appear to fit that lineage. The serrations on the tip of the dorsal fin spine are not pointing towards the tip, and the remaining serrations are robust. The serrations on the pectoral fin spine do not appear to be the right shape and size for a lineage 1. There does not appear to be any pores on the temporal sensory canal in the sphenotic. On that basis the author considers that the lectotype is a lineage 8 species and as name bearer for the species, would mean that if *C. griseus* is a lineage 6 or 9, that *C. griseus deweyeri* would not be a junior synonym or subspecies of *C. griseus* of Holly.

The author has checked the paralectotype and has found that it has the serrations on the dorsal and pectoral fin spines pointing towards the tip; and the pectoral fin spine serrations are small and thin.



Paralectotype of *C. deweyeri* ZMH 1187. Universität Hamburg

Combined with the shape of the snout and the larger venom gland behind the lateral wings of

the cleithrum, it appears to be a lineage 6 or 9 species, so is not conspecific with *C. deweyeri* and eventually won't even be congeneric. Whilst the holotype of *C. griseus* is lost, if one checks the information in Holly (1940) and Holly in Holly, Meinken & Rachow (drawing of holotype alive), and that of live photos of Guyanese and Brazilian specimens, it is clear that it is not a lineage 1 or 8, but a lineage 6 or 9. The paralectotype of *C. griseus deweyeri* may be *C. griseus* of Holly or a similar species (see discussion further on).

## Discussion

The next step is to check *C. deweyeri* against other described lineage 8 species. The colour pattern is of particular importance here. Roughly translated from German, Meinken (1957) states that the colour pattern in life is "light yellowish-grey to dark-beige on the body, darker after the back to and on the neck, slightly lighter after the abdomen, each of the dermal bone plates with a darker stroke in the long direction of the plate and a very fine blackish zigzag line in the middle of the body. All fins colourless, transparent, the spine of the dorsal fin and the ventral fins especially after the front edge to blackish to brown-black. The gill lids show a slightly greenish shine. Eye-catching jewellery of this kind is a wide, deep black band that comes down from the neck without the band of the two sides being connected on the neck, pulls over the eye and, as with the spirit specimens, ends wide and with powerful colouring at the edge of the preopercle."

The key elements of the colour pattern are that the body scutes have a dark anterior edge, with a zigzag line where the dorsolateral and ventrolateral body scutes meet; the head and eye band is very distinct, wide and complete, even under the eye, and its upper extremity extends diagonally partially towards the dorsal fin; the fins are colourless and transparent, except for some dark pigment on the dorsal fin spine and the leading rays of the ventral fins.

There are no described lineage 8 species with this exact pattern, and certainly not from the Guiana Shield. The closest similar species geographically is *C. heteromorphus* Nijssen, 1970 from

Coppename and Nickerie River basins, Suriname. That species can exhibit small spots all over the body and fins, or can sometimes just have a pale body. In either guise they do not have the very dark, wide and distinct eye band present in *C. deweyeri*; just an indistinct band, and mainly visible above the eye.



*C. heteromorphus*, with spots not evident yet, Tapanahony river, Suriname. Bärbel Dornieden

There is one undescribed lineage 8 species that is similar: CW138, but that species is from the Rio Amapari, Rio Araguari drainage, Amapá, Brazil. Given the apparent endemism in Guyanese *Corydoras* (usually only present in Guyana and sometimes Suriname), it is likely that this is not the same species, but further studies are needed.



CW138. Ian Fuller

There are some undescribed lineage 1 species with a similar pattern, reproduced here, but *C. deweyeri* is not a lineage 1 species.



Lineage 1 imported with *C. solox*. Wei-Chieh Tseng



*C. cf. spilurus*, French Guiana. Ingo Seidel

The true identity of *C. griseus* also needs some further work. Nijssen & Isbrücker (1980) tried to restrict the type locality to “Guyana-Essequibo, Potaro River, Kuribrong Trail” based on some BMNH specimens. The author has not seen these specimens but the specimen in the attached image by Jonathan Armbruster is from Kuribrong River, Potaro River basin and appears to be a lineage 9 or 6 species (based on what can be seen of the serrations on the dorsal fin spine).



*C. aff. griseus*, Kuribrong River, Guyana. Jonathan Armbruster

However, the very wide, complete and dark eye band seems more reminiscent of that of *C. deweyeri* (but won't be if it is indeed a lineage 9 or 6 specimen). If upon examination it is a lineage 8 species, then it will be *C. deweyeri*. This pattern, as well as the general head and body shape does not match that of the drawing of the lost holotype of *C. griseus*, and therefore I will label it as *C. aff. griseus*. It also has a translucent lateral wing of the cleithrum. If it is indeed a lineage 6/9 then it is possible that there is a lineage 8 ‘co-mimic’ in the same river which would be *C. deweyeri*, and as such it is likely that *C. deweyeri* comes from the Kuribrong River, Potaro River basin, Guyana. If this hypothesis is correct, the paralectotype of *C. deweyeri* would be *C. aff. griseus*.



Ingo Seidel has photographed two specimens from a creek near Issano, Mazaruni River drainage, Guyana. These seem to match the drawing (which on the basis of *C. grafi* – see Grant (2021) – appear to be accurate) of the lost holotype of *C. griseus*, although the dark area on the parieto-supraoccipital, posttemporal-supracleithrum and first dorsolateral scute that are present on the drawing is missing in these specimens, as well as no distinct dark midlateral line as described by Holly in the holotype.



*C. cf. griseus*, Issano Creek, Mazaruni drainage, Guyana. Ingo Seidel

There is a species from Rondônia, Brazil that better matches the description *C. griseus*, including in the ways discussed above: Co40 (Evers, 1996); and Co73 appears to be the same.



Co40. Wei-Chieh Tseng

In addition, the location of Rondônia (Rio Jaci Paraná, Evers, pers. comm.) in Brazil would

better match that of the original type locality, and the additional later mention of Brazil by Holly.



Co40 subadult. Wei-Chieh Tseng



Co73. Ingo Seidel

Another clue of a non-Guyanese origin is the species that were described by Holly, presumably from the same shipment as the holotype of *C. griseus*: *C. grafi*, *C. pestai*, and *C. schultzei*. *C. grafi* is a synonym of *C. ambiacus*, an Amazon basin species from Brazil, Ecuador, Colombia and Peru (Grant, 2021); and *C. pestai* and *C. schultzei*, whilst considered by most scientists to be synonyms of *C. elegans* and *C. aeneus* respectively, could be valid species and aquarium specimens matching their description also come from the upper and middle courses of the Amazon basin (Fuller, 2021). Another similar species is C134 (Evers, 2004) from Rio Oiapoque, Amapá, Brazil but this does not appear to have the correct head and body shape.



C134. Hans Georg Evers



There is also CW171 and its uncoded mimic from Rio Curuá, Pará, Brazil but they have more of an eyebrow than a mask and some pigmentation in the caudal fin.



CW171. Oliver Lucanus

It is likely that a neotype will eventually need to be designated for *C. griseus* and if so, it is advisable to consider the upper and middle course Amazonian Co40/Co73 specimens as possibly the true *C. griseus*, or considering this information if those codes are described. When also checking Guyana specimens, the Mazaruni basin specimens and Potaro/Essequibo basin specimens need particular attention as they appear to be different. The author suggests that if his hypothesis is wrong and it is found that the true *C. griseus* does indeed come from Guyana, the specific type locality of *C. griseus* may be the Mazaruni River rather than Kuribrong River, as suggested by Nijssen & Isbrücker (1980).



*C. guianensis*, Nickerie River, Suriname. Karsten Schönherr



C139, Oiapoque River. Ingo Seidel



*C. potaroensis*, Potaro River, Guyana. Ingo Seidel

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## References

- Evers, H. G., 1996. Panzerwelse aus Brasilien. DATZ 1996/03.
- Evers, H. G., 2004. Mit und ohne – Panzerwelse aus Amapá. DATZ 2004/11.
- Holly, M., H. Meinken & A. Rachow, 1934-1967. Die Aquarienfische in Wort und Bild. 1328 Tafeln. Verlag Julius E.G. Wegner, Winnenden, und Alfred Kernen Verlag, Stuttgart.
- Holly, M., 1940. Vier noch nicht beschriebene *Corydoras* Arten. Anzeiger der Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Klasse v. 77 (no. 15): 107-112.
- Fuller, I. A. M., 2021. *Corydoras* World [online]. <https://www.corydorasworld.com/>
- Grant, S., 2021. *Corydoras grafi* Holly, 1940. Journal of the Catfish Study Group v. 22 (no. 2): 29-31.
- Meinken, H., 1957. Mitteilungen der Fischbestimmungsstelle des VDA. XXIV. Über zwei der Liebhaberei bislang unbekannte *Corydoras* - Neuheiten (Callichthyidae - Ostariophysi). Die Aquarien- und Terrarienzeitschrift (DATZ) v. 10 (no. 1): 4-7.
- Nijssen, H. and I. J. H. Isbrücker, 1967. Notes on the Guiana species of *Corydoras* Lacépède, 1803, with descriptions of seven new species and designation of a neotype for *Corydoras punctatus* (Bloch, 1794) --(Pisces, Cypriniformes, Callichthyidae). Zoologische Mededelingen (Leiden) v. 42 (no. 5): 21-50, Pls. 1-5.
- Nijssen, H. and I. J. H. Isbrücker, 1980. A review of the genus *Corydoras* Lacépède, 1803 (Pisces, Siluriformes, Callichthyidae). Bijdragen tot de Dierkunde v. 50 (no. 1): 190-220.
- Tencatt, L.F.C., F.C.T. Lima, & M.R. Britto, 2019. Deconstructing an octogeneric misconception reveals the true *Corydoras arcuatus* Elwin 1938 (Siluriformes: Callichthyidae) and a new *Corydoras* species from the Amazon basin. Journal of Fish Biology, 95 (2), 453-471.
- Tencatt, L. F. C., S. A. Dos Santos and M. R. de Britto, 2020. Taxonomic review of the typical long-snouted species of *Corydoras* (Siluriformes: Callichthyidae) from the rio de La Plata basin. Neotropical Ichthyology v. 18 (no. 4) (art. e200088): 1-36.
- Tseng, W.C., 2017. *Corydoraspedia*; Fish Magazine Taiwan, 363 pages.



# Breeding *Corydoras desana* Lima & Sazima, 2017

Bärbel Dornieden



*Corydoras desana* female. All photos by the author

In June 2021 I was able to receive seven adult *Corydoras desana*. There were four females and three males. The males were 5.5 – 6 cm and the females were about 6-7 cm.

Fortunately, all seven animals were in good shape, despite them being known for being delicate upon import. Since I already keep similarly sensitive species, I had prepared an aquarium (100 cm x 40 cm x 40 cm) in advance.



Tank set-up

Once placed in there the animals should remain in this aquarium because it is often difficult to relocate such stress-sensitive species. This thus serves to prevent stress borne infections and failures. The water values were:

Temperature 26 Celsius  
Conductivity 300 ppm  
KH 2  
GH 9  
pH 6.5

Acid-forming additives were not added for the time being, as there may be incompatibilities or fluctuations in the water values during acclimatization. Only afterwards is it prudent to use alder cones, oak leaves and peat granulate.

The tank has the plant *Epipremnum aureum*, which climbs into the aquarium with its leaves; and stone slabs and pottery shards serve as shelter. A piece of mangrove wood is also in there.

## Filtration

Hamburger Mattenfilter and a flow pump (1000 L / h) with O<sub>2</sub> diffuser. There is also a small flow pump filled with activated carbon and sponge for quick weekly cleaning.

For the acclimatization phase, stable water values are important with only weekly water changes, so that the *Coryoras* can rest. The lighting also went out for 2 weeks and the fish explored their new home under indirect daylight.

The substrate consists of very fine sand so injuries to the barbels are avoided, as they are very hectic grubbers.

For the time being, they were only fed with glassworms and tablets, food twice a day in very small quantities. Food leftovers were siphoned off once a day.

## Spawning preparation

The feeding was increased to three times a day in small portions, in addition there was home-made insect paste, which was served with frozen *Artemia* and red mosquito larvae. Alternately, there was live whiteworms and Blackworms. With this feeding, the females started to roe up, the colours gained in brilliance and the reddened, stress-related gill region disappeared. Water changes were now carried out every four days with 20 litres.



Male



Female



Male



Female

Now the pH value has been lowered with alder cones, oak leaves and peat (to pH 6.0). The flow pump with filter charcoal has been removed.

## Courtship activities

On open sandy areas, two males showed clear courtship activities, other males and inactive females were driven from the region. The courtship activities are very prone to failure, as they are ended by the smallest changes. The inactive males signal this by putting up their dorsal fin and remaining still, and they are then ignored by the courtiers.

## Trigger

The temperature was lowered to 25 Celsius, pH 6.0 and small water changes (approx. 10%) before each feeding. Conductance at 150-200.

This stimulates them, making them considerably more active. Days before the actual spawning act, the males searched for spawning opportunities, such as plant leaves, pieces of roots, algae and



glass. It seems as if the males would clean the areas with their whiskers.

### Fertilisation

The fertilization could not be observed because this took place in secret (under roots, in caves) and happened very quickly.

### Spawning: 31/07/2021

The females usually secreted the eggs one by one, frantically searching, on various spawning sites (spawning bases: aquarium glass front, underside of the plant leaves, substrate, plant roots.) Some eggs were finely covered in grains of sand.



Eggs on glass with a sand coating



Eggs on underside of leaf



Rescued eggs

After approximately three hours the eggs were removed and separated in a spawning ring in the parents' tank.

Number: 20; size approximately 1.3 mm; colour white

Hatching time: 4 days at 25 Celsius, pH 6.0, TDS 200 ppm.

Hatching rate: 11 out of 20.

### Development of the fry

First day after hatching, approximately 2-3 mm after 14 days, the fry were approximately 1.3 cm in size.



1 day

There was no feeding for the first 3 days as they were feeding on their yolk. After 14 days they were given microworms; then fed with freshly hatched *Artemia nauplii*.



18 days old

Meanwhile there was another spawning release, this time the eggs were left in the tank.

### Conclusion

Now it remains to be hoped that this beautiful species will provide more offspring.

The larvae and eggs are quite sensitive and fungus quickly if they are contaminated with poor water. The conductivity needs to be low. Since the first spawn only a few eggs hatched, I am still researching the most optimal conditions for maturing the eggs and rearing the fry.



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# Catfish Study Group 42<sup>nd</sup> Annual Convention 18-20<sup>th</sup> March 2022



**Invited Speakers:**  
Top: Jacqueline  
Heijmen Bennett-  
Leaver, Hans Georg-  
Evers, Ian Fuller.  
Bottom: Steven  
Grant, Danny  
Blundell, Ingo  
Seidel.

all subject to availability in 2022



**Kilhey  
Court Hotel,  
Wigan, UK,  
WN1 2XN**



## **‘Orange is the new female’**

### **Jacqueline Heijmen Bennett-Leaver**



Young pair of Lo82. All photos by the author unless stated

There are many different guides to recognizing the different sexes of our fish. Different genera and species, all have their own list of characteristics. We often look for the most obvious; strong odontodal growth, snout tentacles, extended fins, body shape and behaviour. They are often all about males. The females are mostly all about less of that. That's all great when we have nice healthy mature fish that have been in our tanks for a longer period of time. We are used to buying the fish in a store or from an event, giving it a good life in our tanks, feeding them well and giving them time to fatten up and if we are lucky enough there is a pair amongst them and we get our first breeding.

When selecting our future breeding projects and we go out to find the fish, we either take over another hobbyist's fish or we find the fish in a

store. With the first option we will most likely have few issues determining the sexes of the fish, as long as they are mature enough. We might even stumble across a proven breeding group and just continue the project when we get the fish home.



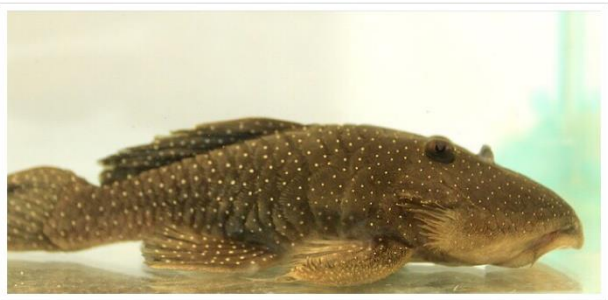
Lo82 female





Lo82 male

But if we find our fish in a store the chances are it will be much more of a challenge to determine the gender of the fish offered. It is always a good idea to ask the shop assistant to catch a group of fish and put them in a shallow container so we can have a good look at the fish. Fish from a shop that have recently arrived are often not in top breeding condition. They have been on a long journey. Maybe the fins have been damaged here and there, they will show some sort of stress coloration and most of all they may not have been fed properly for a while (to prevent them soiling the water in the bag).



*Parancistrus nudiventris* female (top), male (bottom)

What do we look for with this group of newly imported fish? Often the males keep their outer characteristics for a longer period of time. Such as the spiny pectoral fin ray, the caudal peduncle or the long odontodes along the side of the head.

But females which are not in breeding condition will make themselves less visible and hard for us to find. I've found that for instance female *Panaqolus* can look like males when not in breeding condition. But also, in other species or even genera females can look like sub dominant males or even males disguise themselves as females.



Newly imported *Ancistrus ranunculus* female



Newly imported *Ancistrus ranunculus* male



So, what if there was another characteristic to look out for when selecting our new fish. I must admit it is not a 100% fool proof but it can sure make a difference in many cases. As said above, it is often the males who are easily recognisable but I found out the females have a little secret of their own too. When a female loricariid is of a mature enough stage in her life and she is in a healthy condition she will often form small yellow or orange (not gold) spots above or just below the genital papillae or vent. The older the fish gets the stronger and more pronounced this pigmentation will show. Most of us know that the shape of the vent can tell us something about the gender of the fish. A nice U form will usually show a female and a V form for a male. But even this old tool is not reliable as the vent will move and bulge and keep on changing its shape. But the yellow or orange pigmentation is fixed and once it appears it will stay there.

As I warned it is not a 100% fool proof. I can only speak to you from my own experience, and for me it is a very useful tool to recognise females in a group of fish for many years now. I have discovered these small yellow or orange pigmentations on many different species of Loricariidae, even in groups where I thought there were no females in the group! You can use a light or a magnifying glass if your eyesight lets you down a little, like for me. To make the pictures to accompany this article I used a small phone magnifying lens and held the fish for a very short time. After taking the picture I released the fish back into the water and then checked the picture to look for the pigmentation, minimizing the stress for the fish as much as possible.



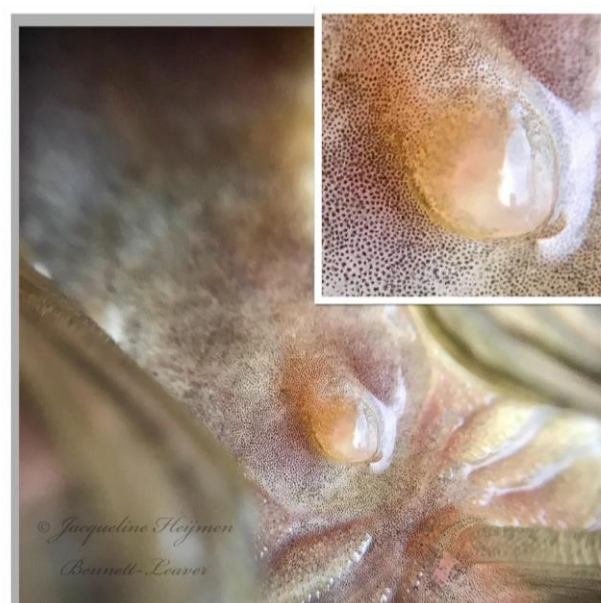
*P. nudiventris* female



*P. nudiventris* male



Newly imported *P. aurantiacus* female

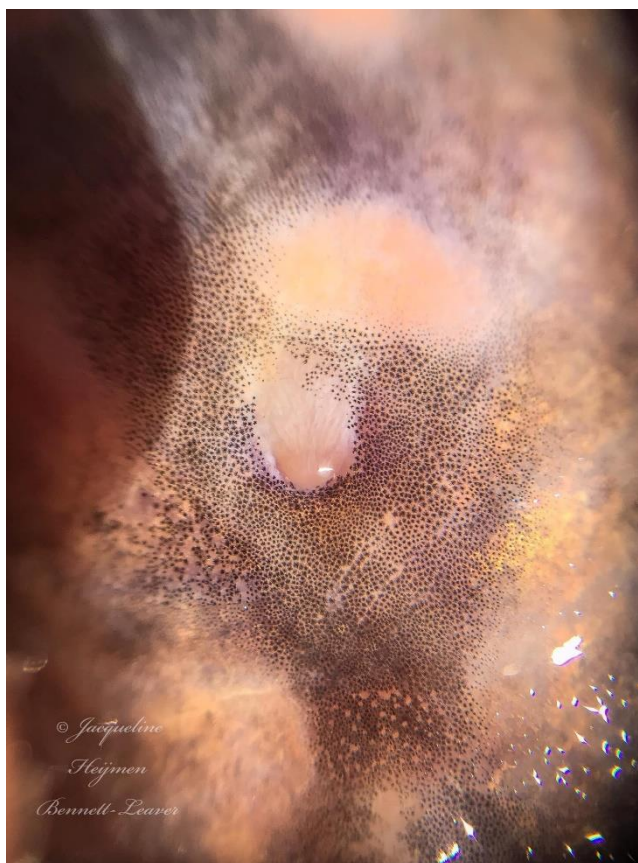


Newly imported *P. aurantiacus* male





Young Lo82 female



Young Lo82 male

I hope this article helps other hobbyists out there to select the perfect group or gives you a better

chance to find that much needed pair. It is an extra tool to use amongst your other skills.

Good luck!



Lo82. Steve Grant



Head of Lo82. Steve Grant

Editor's note: Jacqueline appears to have been the first person to have made this important observation. Thank you to Jacqueline for agreeing to my request to publish them. Based on these photos the 'sexing spots' appear to be xanthophores (yellow) and/or erythrophores (orange/red), rather than gold iridophores.



## CSG Open Show Rules

*Fish will be judged to Catfish Study Group Show Size Guide. Submission of an entry implies acceptance of all of the rules.*

1. Fish will be exhibited in clear, flat-sided containers, no smaller than 100mm x 100mm x 100mm. Exhibitors are requested to label their show tank with the scientific and/or common name of the fish.
2. Fish that are banned from ownership will not be accepted
3. 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.
4. Fish must not be fed on the show bench.
5. Breeders teams will consist of four sibling 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. De-benching is not allowed until the Show Secretary makes the announcement.
8. Photography of entries will be permitted after judging is completed. Time will be allocated to allow viewing of the judges' decisions.
9. The Judges decisions are final. Any issues should be directed to the Show Secretary.

## CSG AUCTION RULES

1. Only aquatic items are allowed, subject to restrictions on locally banned species and the rules below.
2. All electrical goods must have the vendor's name and telephone number attached, together with a statement of condition, e.g., working order, faulty, spares, etc. Otherwise, they will be sold as seen with no guarantee.
3. All fish will be transported to and from the event in an insulated transit container.
4. All plants and fish should be in clear plastic bags, or in containers of a suitable size. Large fish may be offered in plastic containers or buckets. Fish should be identified with either a scientific or common name and reserve prices marked.
5. All fish and plants, etc., must be seen to be healthy and any damaged or deformed fish will be taken out of auction and not sold. Painted, dye injected, genetically modified or fluorescent fish will not be accepted for auction.
6. If the water is seen to be foul or conditions otherwise unsuitable, the item will be withdrawn from sale and the vendor instructed to remedy the issue. Large *Corydoras* catfish (and all *C. sterbai*) will be individually bagged due to the likelihood of poisoning the water in the company of other fish. Fish will be bagged on the day of sale, not on preceding days.
7. All fish that are likely to puncture bags should be double bagged. Any fish deemed improperly bagged or presented, e.g., inadequate room in container, bag too small or deflated/leaking, will be withdrawn and the vendor will be given the option to re-bag.
8. A 15% commission payable to the CSG will be applied to auction sales. Payments to vendors will be made during the interval or at the end of the event.
9. All goods are purchased as seen. The CSG does not accept responsibility for the condition of any item sold at the event. Purchasers always have an opportunity to view the goods on the day and can return them immediately after purchase if not satisfied. The vendor's name will be available to the purchaser in the event of a problem, on the day only.
10. The CSG will not permit other private sales to take place on the premises of CSG events during its sales. No advertising of livestock on the CSG Facebook site.





Presents

## **Cory-Fest IV**

**21<sup>st</sup> November 2021.**

**Derwent Hall,  
George Street,  
Darwen, Lancashire. BB3 0DQ**

Doors open at 10:00 am for setting up, Sales start at 10:30 am

### **Speakers**

(Provisional and my change)

**Mel Rushmore – Ian Fuller – Luis Tencatt (Recorded presentation).**

### **Lectures**

Lectures will take place at approximately 11:30 am - 1:30 pm & 3:30. pm

### **Seller terms and conditions**

1. Table rental = £15.00. Vendor receives 1 draw ticket for the seller draw.
2. Up to 2 people may rent a table, both must register at the point of booking.
3. Fish sales must include at least 3 Corydoradinae.
4. Dry goods being offered must be aquarium related and if electrical must be in working order.
5. All transactions are between buyers and sellers only
6. Corydorasworld and its representatives will not be responsible for any sales disputes.
7. Presales to be completed inside the venue.

### **Attendee's**

1. Door entry - £2.00 (Received two door prize tickets), Vendors may also purchase door prize tickets.
2. Main Raffle.
3. Special prize draw donated by Wood Art (Brian Walsh).
4. Full Canteen facilities.

The profit from this event will be added to the Corydorasworld's Research Assistance Programme fund., which is currently on its third project.

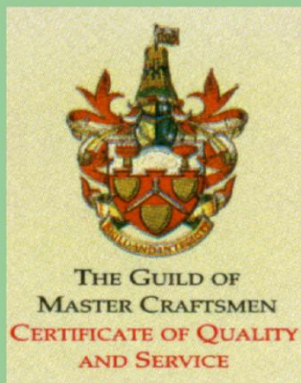
The aim of the Research Assistance Program (RAP) is to add financial support to scientists and or students working with Corydoradinae Catfishes. All projects will be considered and if accepted will be added to the project list. Anyone wishing to make a donation directly to the fund can do directly from the website <https://www.corydorasworld.com/knowledgebase/research-assistance-programme>

Once a table has been booked a vendor is free to advertise their wares on the Corydorasworld Facebook page, but without stating prices or indication of sales, please use the term or similar - "I will be attending and will have -X. xxx species available".



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