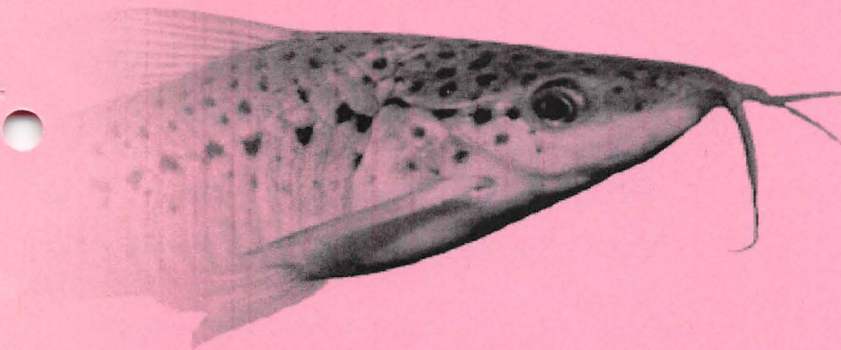


# **CAT CHAT**

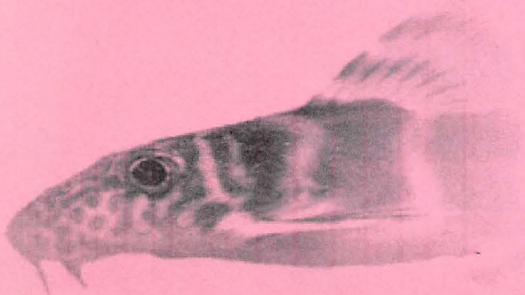
**The Journal of the Catfish Study Group**

*Synodontis leoparda* - rediscovery of missing syntypes



Marcus Elieser Bloch

Convention 2008 Review



Breeders Award Programme First Year Review

Cory Self-poisoning



Spawning *Rineloricaria lanceolata*

**Volume 9 Issue Number 2  
March 2008**

## Honorary Committee for the

### *Catfish Study Group*

**President:** Trevor (JT) Morris  
**vice-President:** Dr Peter Burgess  
[AquaticsDoctor@aol.com](mailto:AquaticsDoctor@aol.com)

**Chairman:** Ian Fuller  
[chairman@catfishstudygroup.org](mailto:chairman@catfishstudygroup.org)

**vice-Chairman & Treasurer:**  
Danny Blundell  
[treasurer@catfishstudygroup.org](mailto:treasurer@catfishstudygroup.org)

**Secretary:** Adrian Taylor  
[secretary@catfishstudygroup.org](mailto:secretary@catfishstudygroup.org)

**Show Secretary:** Brian Walsh  
[showsecretary@catfishstudygroup.org](mailto:showsecretary@catfishstudygroup.org)

**Assistant Show Secretary:**  
Ann Blundell

**Scientific Advisor:**  
Professor Isaac Isbrücker

**Membership Secretary:**  
John Toon  
[membershipsecretary@catfishstudygroup.org](mailto:membershipsecretary@catfishstudygroup.org)

**Website Manager:** Allan James  
[webmaster@catfishstudygroup.org](mailto:webmaster@catfishstudygroup.org)

**Cat Chat Editor:** Keith Jackson  
[editor@catfishstudygroup.org](mailto:editor@catfishstudygroup.org)

**Print Manager:** John Toon  
[printmanager@catfishstudygroup.org](mailto:printmanager@catfishstudygroup.org)

**Breeders Award Secretary:**  
Mark Walters  
[bap.secretary@catfishstudygroup.org](mailto:bap.secretary@catfishstudygroup.org)

**Publicity Officer:** Stuart Brown  
[publicityofficer@catfishstudygroup.org](mailto:publicityofficer@catfishstudygroup.org)

### **Where We Meet:**

The Group normally meets at the Hayfields Working Men's Club, 1 Ratcliffe Street, Darwen, Lancs, BB3 2BZ on the second Sunday of each month from 1pm. The exception is the annual Convention, held in the Spring at the Britannia Hotel, Almond Brook Road, Standish, Wigan.

# Contents

From the Chair.....1

Editorial.....2

Breeders Award Programme- First Year Review 2007/08.....3

CSG Auction Rules.....4

Breeding Rineloricaria lanceolata.....5

Self-poisoning in Corydoradinae Catfishes.....6

Marcus Elieser Bloch.....9

Spawning Corydoras burgessi.....9

Spawning Corydoras panda.....10

Catfish Study Group Open Show.....11

Ian May Have A Rival.....12

The enigmatic Synodontis leoparda Pfeffer, 1896, with the discovery of the syntypes (Siluriformes: Mochokidae)14

Invasive Catfishes No. 3: Pterogoblichthys.....21

Convention 2008 – More than Just Two Days of Lectures.....22

A Cheap Temporary Tank.....25

2008 Dates for Your Diary.....27

Magazine Closing Dates.....27

# AQUALIFE

www.aqualifeonline.co.uk  
Tel/Fax: 01772 601777

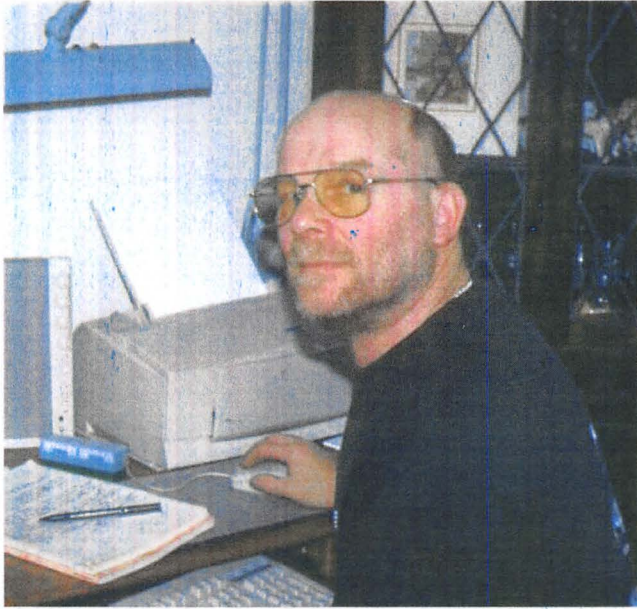


Aqualife,  
Wyevale Garden Centre,  
338 Southport Road,  
Ulnes Walton.  
Leyland,  
PR26 8LQ

Everything you need when it comes to Aquatics

## From the Chair

Ian Fuller



Welcome to the second issue of 2008 and, first of all I have to announce that, yet again, we have had to make a change to the position of Membership Secretary. Unfortunately, because of personal problems that prevent him from giving one hundred percent to the job, Paul has temporarily stepped down. He is hopeful that he will be able to resume and give his full attention to the job in the near future. In the meantime John Toon, our current Print Manager, has agreed to stand in and was duly appointed as Assistant Membership Secretary at the May committee meeting. John can be contacted by e-mail at:

[membershipsecretary@catfishstudygroup.org](mailto:membershipsecretary@catfishstudygroup.org)

or by letter to:

Membership Secretary,  
Catfish Study Group,  
17 Bishop Asbury Crescent,  
Great Barr,  
Birmingham B43 6HL

After a very successful convention in February, the meeting in March was our annual spring auction. This has always been a profitable day for the group and one that helps provide finances for other events, such as the convention. Although there did not seem to be as many lots for auction nor people attending, everything appeared to be on the up. The canteen and raffle ticket sales reached new highs but the main thing that pleases me in particular is that the quality of the fish being offered continued to be of a very high standard and they were making pretty good prices.

In April, after some initial problems with computer compatibilities, Breeders Award Programme secretary Mark Walters gave us a presentation that he accompanied with some stunning video footage of several spawnings, giving us an insight into his experience of breeding a number of Corydoradinae

species. Without a set programme-speaker for the day, the May meeting was conducted as a general discussion, with water quality being the main topic. Many aspects of water filtration and conditioning were discussed. In June, the topic for discussion will be 'Reproduction modes in Catfish' This should be a very interesting meeting and I am certain there will be a lot of valuable information made available during the course of the day.

The arrangements for our 30th anniversary convention in 2009 are coming together very well, with the speaker line up almost complete. I am still waiting for my final speaker to confirm his attendance and, as soon as that happens, I shall be setting the agenda and making ticket available. It promises to be a sell out event so *be ready*. There will be a set number of tickets available and those booked well in advance will be at the keenest price. The full details will published in the Aquatic press, on the CSG web site and, of course, in the next issue of Cat Chat.

The next thing I would like to mention is the September Open Show. I know it is still a fair way away but we do like to get things arranged well in advance. This year we are moving the show part of event into a new room. It is still in the Highfields Workingmen's Club in Darwen but at the other side of the building. The auction will take place in the main hall, as usual. What this has done is allow us a lot more room for both the show and the auction. After the fantastic response from exhibitors last year, we needed to make sure we had enough space available so, by adding the new room, we should be able to comfortably house all our entries.

The layout and sequence of judging will also allow for public viewing of the exhibits as soon as each class has been completed. Last year we introduced individual sponsorship for each class at £10 per class and this will remain for this year. As well as the names of the sponsors being published in the results pages on the web site and in Cat Chat, sponsor names will be shown on the Class section headers. Any member wishing to sponsor a class can do so by simply forwarding a payment to the Treasurer with a copy to me, listing the class or classes you wish to sponsor.

What this sponsorship did last year was cover the expenses of our judges and the room hire, which meant that we could make all exhibit entries FREE and the plan is to continue the scheme this year. So far 50% of the classes have been covered by at least one sponsor, but we are not putting a limit of one sponsor per class, the more the merrier I say.

Until next time happy Catfish keeping

## Editorial

Keith Jackson

As I'm still in post and haven't received any hate mail I guess I didn't make too much of a hash of my first issue! I hope you'll all give me plenty of feedback during my stint as Editor so that John Toon and I can make Cat Chat the magazine you, the members, want to read. We already have some ideas and you should start to see changes before long. Please let us know what you think.

As I wrote last time, I want to see articles from a wider range of authors and not necessarily of great length, though they're always welcome. The "Musings" section is an area I'd like to encourage everyone to use to record snippets about their fish – things that you've noticed about their behaviour or some new trick you've successfully applied. Short articles like that can be every bit as useful as long ones.

On the subject of submissions, please note that the software I use to produce Cat Chat only imports the text from a word-processor document. This means importing embedded images is more awkward and unpredictable, I've found, than importing a separate image. I don't mind if you send me a formatted document to give me some idea of the placement of your images but it would make my life a lot easier if you sent the original image files as well. The result will look better in print, too.

Pride cometh before a fall or, to be strictly accurate "Pride goeth before destruction and a haughty spirit before a fall" as the Bible has it and I've been well and truly found out recently. I never had a fish house until a year ago and any spawnings that happened were accidental. In truth, they're still mostly accidental! I was really pleased to see my *C. panda* and *S. prionotos* spawning in one of my cory community tanks and harvested the eggs with care once the spawnings seemed to be over, hoping to score a good few points in the Breeders Award Programme. I've kept the necessary records but now that the fry have become old enough to show adult colours it's clear that the initial spawnings triggered my *C. aeneus* "gold shoulder" into action on each occasion. I wasn't expecting that because previous spawnings were placed on the glass in a large mass. On both these occasions, the females adopted a similar pattern of egg placement to that used by the other species. Does anyone else think they laugh at us?

Speaking of the BAP, as you'll see from Mark's review of the BAP's first year in this issue the participants' names are those we would perhaps expect to see (excluding mine for the reasons above!) but that shouldn't put anyone off. Although the Programme has awards for people who can seemingly breed fish at the drop of a hat, it really comes down to a very proper effort for the Group to record everything we can

about spawning behaviour in catfish. At the last two Conventions, ichthyologists have said that the CSG membership is in a terrific position to increase knowledge in areas that the professionals have no time to work on. We can record behaviour patterns over quite long periods, without the time constraints inherent in university research programmes. We can take years where they may only have a matter of months to complete the work. We work with live fish while they often only have preserved specimens.

Best of all, it makes no difference whatsoever that you have only bred "easy" species and if that species has already been the subject of a report. If we eventually have 50 reports about the breeding patterns of *C. aeneus*, for example, it will give us a lot of data we can sift to see whether there are clear trends showing up. If we find that certain species are easier to spawn in certain parts of the country – or the world for that matter – we can investigate differences in the water supply. If we start to see consistent variations in fry patterns we might be able to start unravelling the *aeneus* confusion, as Ian did with *zygatus* and *rabauti*. Absolutely *any* information, even about an unsuccessful spawning, is important. Why? Because it might show us a boundary between success and failure. When I worked at a university we had endless trouble trying to show students that a negative result could be every bit as valuable as a positive one. Often, knowing what not to do is just as vital if not more so.

Just a couple of quick points to finish with:

- 1) When you send me an email, please put Cat Chat in the Subject line so it doesn't get treated as spam.
- 2) I'm going on holiday at the end of August so I'll need to close the September issue of Cat Chat one week earlier than normal, **24th August**.



# Breeders Award Programme- First Year Review 2007/08

Mark Walters

The Breeders Award Programme (BAP) was launched on March 1<sup>st</sup> 2007. The programme encourages CSG members to log and submit breeding reports against successful catfish spawnings.

This update marks the completion of the first year of the Breeders Award Programme and revises spawning successes and points awarded to mid-May. The success of the programme was marked by the presentation of bronze awards to Ian Fuller, Adrian Taylor and Mark Walters at the 2008 CSG Convention in February.

Since the last report, another 17 species were bred by CSG members, bringing the total registered spawnings to 80 this year. For the year, 63 different species have been spawned from 10 genera. Quite an achievement!

As can be seen by the points totals to date, two new entrants have achieved points and a silver award is now due to Mr. Mark Walters for achieving over 1000 points from 6 or more genera (Corydoras, Scleromystax, Aspidoras, Ancistrus, Hemiloricaria and Farlowella). The gold award requires 2000 points from 10 genera. If any members complete the programme, they can restart from scratch, and full recognition will be made for their previous achievements.

The convention and award ceremony re-invigorated interest in the programme with a great deal of interest to submit reports. Completed reports have been submitted to the Editor and will feature as an important contribution to Catchat for years to come. We encourage all members to complete the stage reports after registering their success.

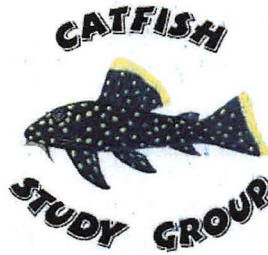
Congratulations to all the participants of the scheme

and the sooner other members submit reports, the sooner you will start to accumulate points.

AT9	30/12/2007	Corydoras sp.'C132'	Adrian Taylor
MW12	07/12/2007	Corydoras polystictus	Mark Walters
EB7	21/12/2007	Hypancistrus zebra	Eric Bodrock
AT10	06/01/2008	Scleromystax barbatus	Adrian Taylor
MW13	25/12/2007	Aspidoras sp. 'C125' gold	Mark Walters
MW14	30/12/2007	Corydoras araguaiaensis	Mark Walters
MW15	01/01/2008	Hemiloricaria lanceolata	Mark Walters
MW16	02/01/2008	Corydoras longipinnis	Mark Walters
MW17	14/01/2008	Farlowella vittata	Mark Walters
EB8	06/02/2008	Corydoras cochui	Eric Bodrock
KJ3	14/02/2008	Corydoras panda	Keith Jackson
KJ4	27/02/2008	Scleromystax prionotus	Keith Jackson
KJ5	11/03/2008	Corydoras septentrionalis	Keith Jackson
KJ6	05/03/2008	Corydoras narcissus	Keith Jackson
KJ7	05/03/2008	Corydoras paleatus	Keith Jackson
FF5	30/03/2008	Corydoras semiaquilis	Frank Falcone
FF6	30/03/2008	Corydoras ehrhardti	Frank Falcone

Name	Points to date
Ian Fuller	860
Mark Walters	1020
Dave Penney	260
Adrian Taylor	575
Keith Jackson	120
Eric Bodrock	80
Frank Falcone	20





## CSG Auction Rules

1. All items offered for sale to be for the fish-keeping hobby only.
2. All electrical goods MUST display the name and telephone number of the vendor and a statement of the condition of the item i.e. working; spares or repair only etc.
3. All plants and fish offered for auction should be in clear plastic bags, jars or buckets suitable for the size of fish/es being offered for sale.
4. Catfishes, Loaches and Cichlids, MUST be double bagged; failure to comply will result in the item being returned unsold to the vendor.
5. GM, Painted, Tattooed or colour injected fish WILL NOT be auctioned.
6. All fish offered for sale must be identified by their common or scientific name.
7. All fish should be presented in suitable boxes and, for health & safety reasons, each box should weigh no more than 17kg. Any boxes over 17kg will be returned to the vendor with contents unsold.
8. Any fish offered for auction requiring re-bagging WILL incur a re-bagging charge of 50p
9. A 15% commission charge will be levied on all sales. Settlement to vendors will be made at times suitable to the CSG's officiating teller before the close of the day's activities.
10. If in doubt, only bid for an item as seen. In the event of a problem, the vendor's name will be made available to the purchaser only on the day.

***The CSG accepts no responsibility for the condition of items sold at any of its auctions and is in no position to exchange or make a refund for an item.***

## Breeding *Rineloricaria lanceolata*

John Morton

I bought four flimsy young fish of about 6 cm under the name of *Rineloricaria lanceolata*, one of the smaller catfish of the South American family Loricaridae. This appears in some editions of the Aqualog book but as the ones pictured are a more brilliant red I am not certain whether this is in fact the correct name for my fish. They seem a good match, however, for *R. lanceolata* as shown in the wonderful Catfish Atlas (by Hans-Georg Evers and Ingo Seidel).

They have grown to about 12 cm total length and being extremely inoffensive are an ideal fish for a community aquarium. As young fish they have a rich orange to reddish brown colour overlain with irregular bands of darker brown but as they grow the colours become a more uniform rusty brown. They have a very slender shape tapering from broad pectoral fins toward the tail which has a short stiff extension to the top lobe.

Whatever their true scientific status they are lovely fish. I placed the four into a five foot planted community aquaria and they did very well. Dwarf cichlids and later pencil fish bred in this tank without so much as a glance from these catfish. They are not demonstrative in any way and being of crepuscular habits rest for long periods in shaded places during the day. At all ages the twig-like shape and colouring are effective camouflage among plants and bogwood.

They become more active in the evening and scuttle sideways across the gravel when live or frozen bloodworms are offered. In fact this is the only food that seems to excite them. They will take frozen mosquito larvae and occasionally bits of flake but have resolutely ignored catfish tablets, cucumber, lettuce and other things that are often recommended for members of the Loricaridae. As far as I have observed they are not great eaters of algae either. Nonetheless my specimens grew over about a year into sturdy fish and I was keen to breed them.

I added a 5cm diameter plastic tube (20 cm long) to the underside of an arching piece of bogwood in the darkest corner of the tank and within a few days the largest individual had taken residence there. The others approached from time to time but there was nothing to report for over six months. I then took the decision to move all four fish complete with plastic tube and bogwood cave into a separate 30 inch tank. I added bushes of java fern and java moss and a brisk sponge filter. I increased my normal water changes to 20% every second day. Soon there was a lot of activity in and around the tube and on several occasions I observed a male and female thrashing about inside. But no eggs.....

Then I read somewhere that this species needs to feel very secure or it will not spawn. I therefore placed a

large stone in front of the tubes entrance and waited. I could see the male and female come and go but not what was going on inside. Water parameters were DH 6, pH 6.0, temperature 76 degrees F.

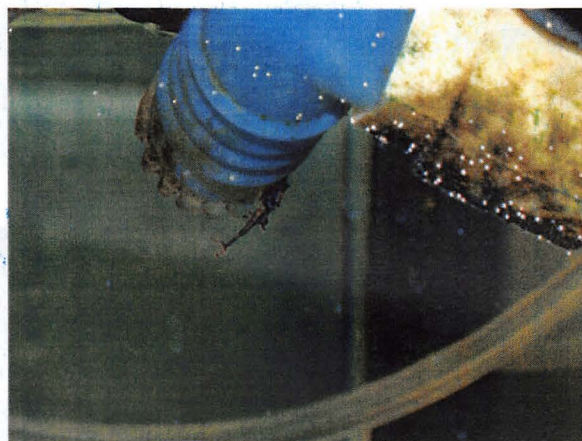
According to various sources it is very easy to distinguish the sexes of this species. The male has a broader head and develops bristles (odontodes) on the cheeks. It was clear that I had one male and three females. Then disaster struck.

The male had taken to resting under a ceramic dish that was propped up by pebbles and when bloodworm was offered he would dart out from there to pinch the juicy wrigglers. One day the dish collapsed and the male, trapped beneath, suffocated.

I was very disappointed but I left the females alone in the hope that I might somewhere find an aquarist who had a male to lend me. I reduced my water changes to a normal 25% per week. One of the fish took over the tube but it was 3 months later that I noticed two fish seemingly contesting the tube in a vigorous manner similar to what I would have expected of a spawning pair...

Next day I spotted half a dozen large fertilised eggs on the glass tank bottom!

I couldn't see inside the tube but the females now kept their distance. The male was not seen outside the tube for 14 days but then one early morning I found scattered around the tank about 20 of the cutest little whiptails. At about 6mm long they were replicas of the parents. I left the older fish with the fry for two weeks and they came to no harm at all but then a pair began to be active in the tube again so I transferred the adults to another tank



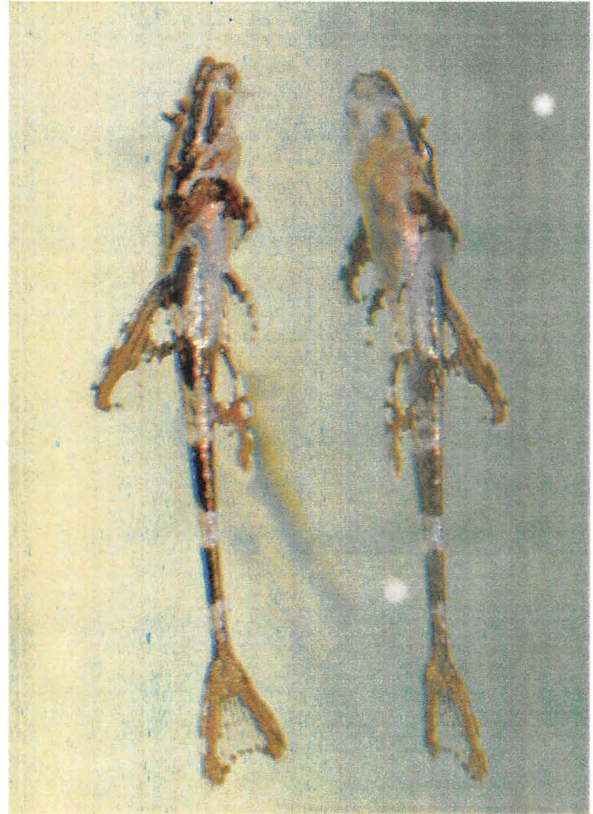
For whatever reason there were no more spawnings. Just for the record the successful father had no bristles on his cheek that were easily observable so this is obviously not a failsafe method of distinguishing the sexes.



The young however are doing fine. At first they would eat only newly hatched brine shrimp which I offered in early morning and late evening. They were generally inactive but could dart away with surprising speed if my siphon pipe approached too close. After a few weeks they would also take frozen cyclops, lobster eggs, grindal worms and crushed flake. At 10 weeks they began to eat small blood worms and their growth spurted.

At 20 weeks some were 50mm long (some were smaller) and rather more active. At this stage they still seem to appreciate the company of the own kind.

This *Rineloricaria* species is certainly a lovely and interesting fish.



## Self-poisoning in Corydoradinae Catfishes

Ian Fuller

How many of you have purchased a group of new long sought-after Corys, only to find that they have all died in the bag on the way home? Why does this happen?

This has happened to me in the past but not any more. From my observations, I discovered that many, if not all, Corydoradinae catfish release a mucus-like, toxic substance from the base of their gills when placed under stress. The strength of the substance seems to vary according to species.

I believe this to be a natural defence-mechanism, used primarily against predation. It is released when the Cory is grabbed by a predator, hopefully causing the predator to release its grip and affording the Cory a chance to escape.

Putting this theory into hobby terms, the aquarist is the predator. We catch the Cory in our net and put it into a bag or small container. The Cory is naturally put under stress and instinctively releases its toxic fluid. Here we come to a slightly different situation for the Cory. Although it has been released from the net it is still under stress and in a state of shock. In a confined space, such as the a bag or show tank, it cannot escape from the poisonous toxins it has released. In a very short space of time, the fish starts to be affected by the poison that is now fully dispersed into the water. The effect on the Cory is such that it can stop breathing and, literally, within the space of a few minutes the Cory is dead. So far I have been unable to isolate the actual

substance the Cory releases and only one image of it actually being released is known (Figure 1).

This problem can and does happen whenever we transport Corys, be they new fish from a shop, a group of young you are taking to a friend or a shop to sell or even a single specimen fish you wish to exhibit at a show. The first indication we have that there is a problem are small bubbles forming at the edge of the water surface in the bag or container and the fish may be breathing rapidly, although it is usually the very opposite and their breathing slows down or even stops altogether. This may be an instinctive defensive reaction by the fish to stop itself from breathing in the toxins.

As long as a few basic procedures are followed it is quite a simple matter to avoid losing Corys through self-poisoning. The first thing to do when catching your fish is to take enough water for transporting the fish in from the host tank and put it into a bag or container. Then take another larger container, also containing host-tank water, catch the Cory/s and put them into the second larger container. Now disturb the Cory/s a few times over the next few minutes by chasing them with a small net. Disturb them enough to make them skittish but not enough to cause them to panic and jump. This should create the necessary amount of stress to ensure that they release their toxins. The Corys should then be removed from the second

container and placed into a bag containing water from the first container. The water from the second container should then be discarded.

A further tip when buying Corys is to try and ensure that they are stressed enough by the person catching them to ensure they have released their toxin before they are put into the transporting bag. Sometimes it is the inexperienced shop assistant that is the best person

to catch your new Corys, mainly because they tend to chase them around a little more creating that extra little bit of stress. I know I am repeating what I said earlier but it is important to spot the first signs of the potential problem, which will be small bubbles forming around the edge of the surface of the water. The water may also start to take on a yellowish tinge and to cloud up. Quick action is required, which is to re-bag the fish in new clean water.

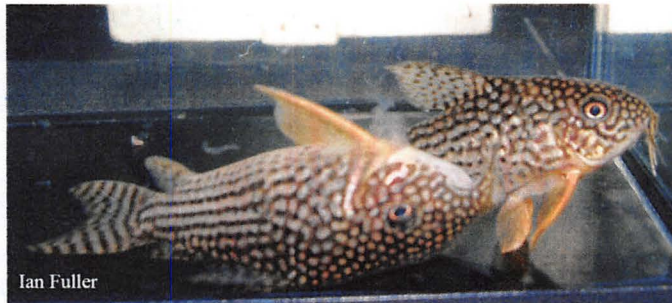


Figure 1: Mucus being released from the gills of a female *C. sterbai*

***CATFISH STUDY GROUP***  
**OPEN SHOW**  
**AND AUCTION**  
**21 SEPTEMBER 2008**

***Highfields Working Men's Club***  
***1, Ratcliffe Street, Darwen***  
***Lancashire, BB3 2BZ***



**B • A • S**

*One of the Worlds Largest Aquatic + Pet Centres*  
**Always a huge Selection of Fish From  
 All Over The World !**

**We are keen to supply the fish that people want.  
 We stock as much variety as possible and we  
 constantly investigate new suppliers and sources  
 to make rare and unusual fish available to you.**

And just to make your visit worthwhile, you will also find

- ★ Vast Dry Goods ★ Aquarium Furniture ★
- ★ Our own OATA approved Red Sea Aquaiums ★
- ★ Pond and Water Garden Products ★ Coldwater Fish ★
- ★ Marine Fish ★ Aquarium Plants ★ House Plants ★
- ★ Large Pet Department ★ Gift Shop ★ In Store Café ★
- ★ Vending Machines ★ Large Free Car park ★

**AND**

**BAS Angling**

**BRITAINS AQUATIC SUPERSTORE LTD**  
**225 FOLDS ROAD**  
**BOLTON**  
**BL1 2TW**

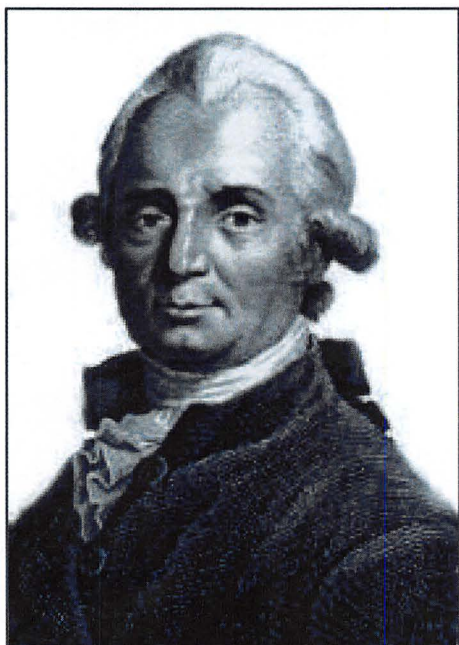
Tel: 01204 534343 ★ Fax: 01204 364174

e-mail: [fish@bas.co.uk](mailto:fish@bas.co.uk)

[www.bas.co.uk](http://www.bas.co.uk)

## Marcus Elieser Bloch

A Small Insight by A W Taylor



Marcus Elieser Bloch was born in Ansbach, Bavaria, Germany, in 1723. Having some knowledge of Hebrew and Hebrew related histories, he managed to find employment as a teacher in the house of an eminent Jewish surgeon in Hamburg, it was while Bloch was in Hamburg that he mastered the German language and some Latin, and it was during this period that Bloch's interest for scientific study was ignited while he was studying anatomy, during his spare time.

Bloch was so eager to increase his knowledge of anatomy he left his employment and headed towards Berlin, where he threw himself enthusiastically into studying all branches of medicine; and it was during this stage of his life that Bloch became passionate for

all things relating to the natural sciences. It was after Bloch had published his work on medical treatises in 1774, that he turned his attention solely to the studying of 'Natural Sciences' especially Ichthyology; travelling to many places around the world collecting and cataloguing various species of fish; publishing many fine works along the way.

One of Bloch's finest publications was his encyclopaedic work between 1782 and 1795, a twelve volume illustrated work, on fishes; the first three volumes alone dealt solely with the descriptions of German fishes, with the remaining volumes focusing on fishes from other regions of the world. These works were illustrated to a very high standard by Bloch himself and was the definitive work on ichthyology of the eighteenth century. This work was very nearly not finished as Bloch, ran out of money for its publication half way through; however, because the first six volumes which had already been published, had been so exceptional in quality and universally accepted, that academia, patrons and even royalty participated in the financing of the remaining volumes; to such an extent that Bloch had the name of each person donating money attached to each illustrated plate at whose cost it had been prepared and printed. Today Bloch's collection of around fifteen hundred specimens is housed at the Museum of Natural History, Humboldt University; Berlin.

What makes Bloch's works all the more extraordinary in the fact the Bloch came from humble beginnings, and that he had no formal education as a child, in fact Bloch could not even write in his native language until he was in his late teens. Marcus Elieser Bloch died in Carlsbad, Germany on August 6<sup>th</sup> 1799.

## Spawning *Corydoras burgessi*

Presented for the CSG BAP by A W Taylor

Some six years ago I purchased two pair of young *C burgessi* that was from a spawning that was offered at a CSG auction by fellow member Alan Vazier. These fishes were housed in what I call a general dump tank, situated in the bottom corner of my fish house. Unfortunately, some time later one of them died.

It was during May of 2007, as I was carrying out a 'general spring' clean on my dump tank, that the remaining three *C burgessi* caught my eye because one of them had quite a rotund appearance. I checked the three catfish for signs of sexual dimorphism and it seemed to me that I had two females and a male; I moved these into an empty tank that was 38cm x 21cm x 21cm, using water mixed at 50% from their original tank and 50% rain water. To this I added sand for a

substrate, a small, corner, air -perated box-filter and, for décor, I added some seasoned Holly twigs, Java fern and a large clump of Java moss.

The adults I conditioned on a diet of live foods, primarily, grindal worms, bloodworms and brine shrimp nauplii. Over the next couple of weeks I carried out water changes that would lower the pH considerably, as *C burgessi* were reported to be acid loving spawners.

It was at the start of the second week in June that the catfish decided to spawn sometime during the night, laying some thirty eggs, mostly singly amongst the Java moss but with a few being laid upon the glass side of the tank. The eggs were 2mm in diameter and opaque in colour. They were collected and placed in a

small container containing water from the parent tank and aerated. About 36 hours later 50% of the eggs hatched, retaining a quite large yolk sac, which was soon absorbed as the fry were quite active.

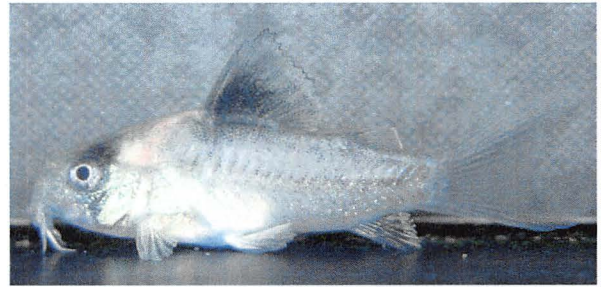


**Fry @ 10 Days**



**Fry @ 1 month**

After the the yolk sac had been absorbed the fry were fed upon a liquid mixture of infusoria and marine invert food every twelve hours, with 50% water changes being carried out every day. The fry developed in size quite rapidly and, after five days, were moved onto a diet of micro worms and newly hatched brine shrimp. They were also were moved to a small tank, filtered via a small air powered sponge filter. After a further two weeks, small sections of catfish tablet were also offered and readily consumed. The fry grew quite rapidly and at ten weeks were of an acceptable size that they could be moved into a general tank and passed on to other aquarists and hobbyists.



**Fry @ 3 months**

## Spawning *Corydoras panda*

Presented for the CSG BAP by Mark Walters

A group of wild-caught *Corydoras panda* were bought in December 2006 from Pet City in Leeds. The group were almost full grown (4cm male, 5cm female) and consisted of 1 male and 3 females. They were housed in a 60cm, 50-litre species tank at 74F, pH <6 and hardness of 6dGH. The tank was sparsely decorated with a thin layer of sand, bog-wood, java moss and a few oak leaves. Filtration was via a 'Biofoam 200', internal, air-powered filter. The group spawned for the first time shortly after purchase but, for this BAP report, a later spawning is documented.

Food was given twice daily and included Tetra prima and Aquarian flake every morning plus frozen bloodworm or chopped earthworm in the evening

### Breeding details:

Courtship behaviour between two adult fish followed 24 hours after a cool water change. The ripe female presented to the male who assumed the typical *Corydoras* 'T'-position.

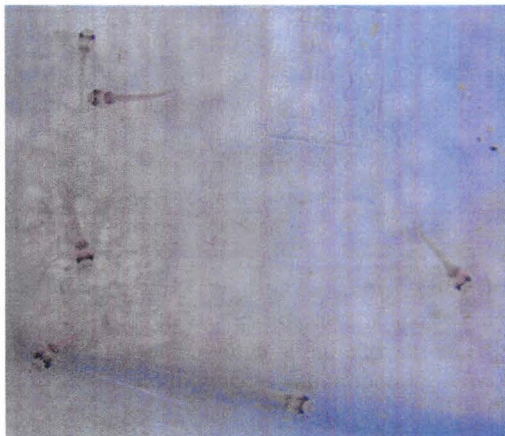
Up to three eggs were deposited at a time, high against the glass behind a spawning mop. Very few eggs were deposited in the mop itself. Following egg laying, the other pandas proceeded to devour any that were easily found. In total 25, 2 mm eggs were laid. The eggs were creamy in colour and floated if removed from the tank side.



**Adult *Corydoras panda*, two females on left**

Eggs needed to be removed promptly, before the adults discovered them. The eggs were seen to have a high lipid content and were close to being neutrally buoyant in the water. The eggs were easily rolled off the glass and were highly adhesive. They were transferred to a 1.2 litre hatching tub with alder cones and aeration. The eggs took 4 days to hatch and a further 3 days for the 6-mm fry to become free swimming.

The first foods, offered after four days, were ZM100 and microworm, fed twice daily with a 90% water change before the evening feed of dry food. The fry grew quickly and had reached 8 mm after ten days. At one month they had reached 12 mm.



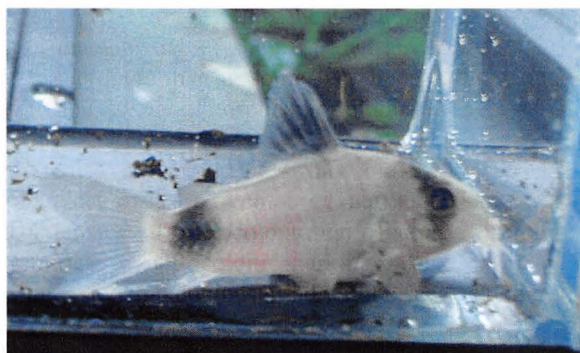
**10-day Old Fry**



**Fry at 6 weeks**



**Fry at 4 weeks**



**At 3 months, showing full adult colouration**

The 20-mm fry were released to a growing out tank after 6 weeks. I have experienced losses of fry due to

bacterial problems around the six-week point. This has since been overcome by more frequent water changes. At three months, the 28-mm fry resemble miniature adults and can be safely housed with other fish.

## Catfish Study Group Open Show

**Brian Walsh, Show Secretary**

Since the early Northern Area Group days, the show has always been well supported by catfish enthusiasts from all over the UK so what makes members and non-members travel the distances that they do to attend such an event? The competitive element of the show? The opportunity to view probably the best and most varied examples of quality catfishes displayed together in one place? Meeting like-minded enthusiasts to exchange information about their fish? The chance to buy, exchange or sell catfish?

It's probably a mixture of all of the above. Over the years, the event has proved to be not just a show but also a showcase for both the beginner and the experienced alike to view many of the old favourites and, hopefully, view for the first time many newly-discovered species. It also gives an opportunity to see what species are currently being bred. This year's show will give enthusiasts an opportunity to see breeders teams on display from our Breeders Award Programme.

This year's show also sees the auction and show being in two separate rooms. This will give us more room to display the exhibits and to allow the judges more room to work. When each section has been judged we will open up that section for public viewing.

If it is the competitive element that you are looking for then why not enter some of your specimens in the show? To help you make your selection of which fish to enter I have listed

some of the qualities that a judge will be looking for when they judge your exhibit:

**SIZE:** Measured from the tip of the snout to the caudal peduncle. Please note the allocation of points for size has been reduced to 10 to maintain the 100 total points available following the introduction of Presentation as a category.

**BODY:** The fish should have the correct body shape, having no deformities. Always avoid a misshapen body due, for example, to being too gravid, undernourished or diseased. Also avoid fish with permanent scars, malformed scale patterns, permanent sealed damage to body tissues, especially adipose fin, barbels, eyes and gill covers. Lumps or bumps denoting internal parasite or damage may cause disqualification.

**FINS:** The fins should be the correct shape and size for the species. Avoid missing fins, bent or deformed rays, paired fins of unequal size or shape, sealed holes, weld marks or scar tissue. Note that, in some fish, bent or elongated rays may denote sexual dimorphism or maturity.

**COLOUR:** This should be strong and true to the species. Avoid a lack of lustre to coloured markings, a lack of depth and intensity of the colouration. Fading of colour at extremities, wrong colour markings, lack of or altered markings due to being unsettled will be seen as demerits.

**CONDITION:** The fish should have good, overall, general condition, being sound in body and finnage. It should have no scratches or scuff marks (beware that naked-skinned fish are more susceptible to this), no scales lifted or missing, no split, nipped or eroded fins or barbels. Fin congestion or haemorrhaging in fins, excessive body slime, white patches or cataracts on eyes will mark a fish down.

**DEPORTMENT:** The fish should show the correct, natural posture, alertness, carriage and behaviour.

**PRESENTATION:** The tank should be large enough to allow the exhibit adequate space to move around. The tank should be presentable, that is to say clean and free of blemishes such as fingerprints or scratches. Any tape used on the edge of tanks must be black and should not hinder the viewing area. Silicone sealant used internally on tanks must also not restrict the viewing area of the tank.

The condition of the water used for the exhibit should be clean, clear and free of debris. Where species require specific water conditions such as those from blackwater rivers and streams, it will be permissible to present these fishes in tanks with water having a tinge of natural colour.

Exhibits should be shown in tanks of a suitable size giving the exhibit adequate room to move around. The minimum tank size is 100mm x 100mm x 100mm.

**PAIRS:** The exhibit must contain two of the same species, and be a true pair.

**BREEDERS:** Date of birth / hatching is stated on the exhibit, which should be 4 fish, between 3 and 15 months old.

Points per category for single fish are as follows:

SIZE	10
BODY	20
COLOUR	20
FINS	20
CONDITION AND DEPARTMENT	20
PRESENTATION	10

Points per category for pairs of fish (1 male, 1 female)

SIZE & MATCHING	10
BODY	20
COLOUR	20
FINS	20
CONDITION & DEPARTMENT	20
PRESENTATION	10

Points per category for breeders (2 males & 2 females if sexable)

SIZE & MATCHING	10
BODY	20
COLOUR	20
FINS	20
CONDITION & DEPARTMENT	20
PRESENTATION	10

A full list of classes and the show rules are in the show schedule.

Why not come along on the 21<sup>st</sup> of September and take an active part in this catfish experience, enter some of your catfish in the show? Who knows you may even be lucky enough to win some prizes!

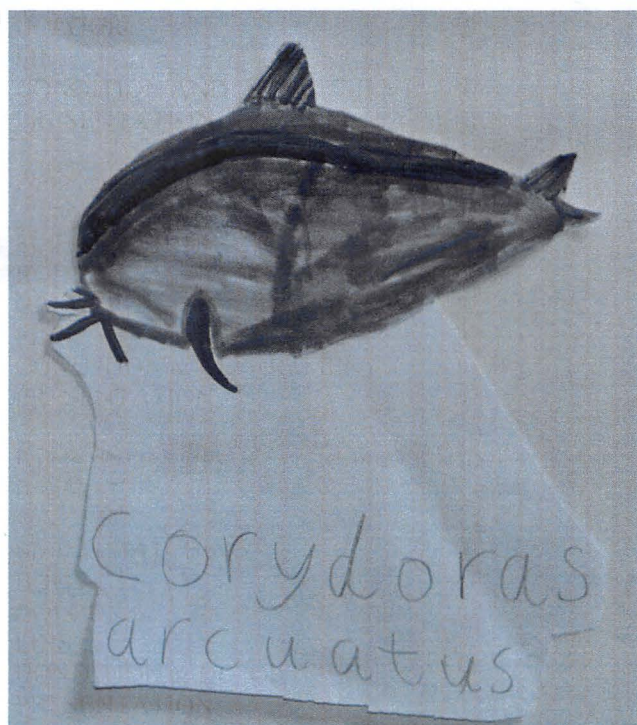
## Ian May Have a Rival!

**Keith Jackson**

All my four of Grandchildren love "Granddad's fish" and I have a regular queue behind me whenever I do my round of the tanks and pond. The eldest, Hannah, is aged 7 and a natural artist, just like her mother and my father. That's a talent that jumps around my family in a totally random fashion. My elder daughter and I can't sketch to save our lives and, although I'm a Chartered Engineer, even my technical drawing is probably best described as idiosyncratic. Let's just say no-one's ever in any doubt who drew one of mine.....

The last time Ruth and I visited, Hannah was in a drawing mood and decided to draw one of my fish from the viewing screen on the back of my digital camera. I know I'm biased - I'm supposed to be! - but I think the result really is pretty good.

In a few years' time perhaps Ian had better look to his laurels? :)



***For all your Catfish needs why not visit***



**One of the UK's Premier Catfish suppliers with over 200 display tanks.**

We have regular shipments and import many rare and unusual catfish including never before seen species of Corydoradinae, Loricariidae & Pimelodidae.

*Catfishes large or Catfishes small, whatever you want we have them all.*

*The fish we have for your delight, with colours plain or colours bright.*

*Just drop right in to see our fish, or just give us a call if you wish.*

*We have a range of tanks and kit, that for every taste we're bound to fit.*

*So come along and see for your self, the stuff we have upon the shelf.*

*Our friendly staff will provide, advice to help, you decide.*

*So come along and have a chat, this is where we are at: -*

**Pier Aquatics**

**Great George Street, Off Wallgate, Wigan, WN34DL**

**Tel 01942 236661**

**Fax 01942 821053**

**Opening hours: -**

Mon Tues Wed Fri and Sat: - 10am -5.30pm

Thurs: - 10 am - 8 pm



## The enigmatic *Synodontis leoparda* Pfeffer, 1896, with the discovery of the syntypes (Siluriformes: Mochokidae)

Steven Grant

Since its description as “*Synodontis leopardus*” in 1896 (or perhaps 1894; see Eschmeyer, 2008) this species has remained somewhat of a mystery in terms of its identity and validity. Hopefully this paper will go some way to resolve this problem. If it is a valid species its correct name would be *S. leoparda* as this species name must agree in gender with that of the genus name (see Ferraris, 2007).

The story starts in 1893 when Pfeffer published his account of various species collected by Dr. Franz Stuhlmann in 1888 and 1889 (Pfeffer, 1893). Parts of the collections are five specimens collected on 22 September 1888 at “Rufu bei Korogwe”. My interpretation of this is that the specimens came from the Ruvu (or Rufu) River near or at Korogwe in Tanzania. The Ruvu is part of the Pangani River basin, and rises on the eastern slopes of Mt. Kilimanjaro and Lake Jipe. It should not be confused with the Ruvu River further south, which drains the Uluguru Mountains, and enters the Indian Ocean near Bagamoyo. The river that runs past Korogwe town appears to be the Pangani proper, but there is also a Korogwe district and this may be what Pfeffer was referring to. Either way, the specimens were caught in the Pangani River basin. Pfeffer originally identified these specimens as *Synodontis nebulosa* Peters, 1852, a species described from the Lower Zambezi River in Mozambique; but I am confident that it is distinct from that species. A drawing was not published.

In 1896 Pfeffer described “*Synodontis leopardus*” based on the same specimens. The description was very short and again the paper had no drawing. Thankfully he had described the specimens in much more detail in 1893, with the main body of the morphological and meristical description apparently based on the largest specimen and the colour and pattern from all of them. However, the description of the colour and pattern in the actual description of the species in 1896 is shorter than the account in 1893. Since then, the problem has been that, to date, the type specimens have not been traced in any collection.

In 1970, in preparation for his monumental work on *Synodontis*, Poll contacted the Universitat Hamburg, Zoologisches Institut und Museum, Hamburg, Germany (ZMH) and was informed by Dr Ladiges that the type specimen(s) were not traceable and that he believed that they may be in the Museum of Natural History in Berlin (ZMB) - Dr Thiel, personal communication. When I contacted ZMH Dr Thiel initially confirmed the position of Dr. Ladiges. I then contacted the ZMB and I have been informed by Dr Bartsch that they are not traceable there either. Gosse (1986) stated that the ‘type’ should be in the “NMH” (I

think he meant ZMH) but could not identify it. Eccles (1992) could not provide any information on it, other than a size, and I only briefly mentioned it (2003).

I then did another search on the ZMH collection database under the name *S. nebulosus* in view of the fact that Pfeffer had originally (1893) considered them to be that species. I then found ZMH 12118 (formerly 6830) and ZMH 12119 (formerly 6845) which are labelled as “*Synodontis nebulosus*” and the logged locality is “Rufu, bei Korogwe, Tansania”. The specimens had been received from Stuhlmann. In the jar for 12118 the old label says “Fisch. 456. Rifu, b. Korogwe. 22.9.88”.

It became immediately obvious that at least some of these were the ‘lost’ type specimens. I say specimens rather than specimen (Ferraris lists a unique holotype) because, in his 1893 account, Pfeffer clearly states he has 5 specimens (1 of 97mm and 4 small ones), and in the actual formal description in 1896 Pfeffer refers bibliographically to that earlier account and he also specifies how the pattern of the young differs to that of the larger specimen. I therefore consider that there are syntypes rather than just a holotype or with paratypes, as Pfeffer did not class one in particular as a type and there is no lectotype designation in the literature I have searched. As mentioned above, Gosse (1986) considered there was a “type” and mentioned the NMH, by which I think he means ZMH. He said it was 58mm SL and was distributed in coastal rivers in Tanzania and Somalia. The size and the mention of Somalia are clearly taken from Vinciguerra (1897). He also lists other references: Guiglia (1935), and Pfeffer (1897). However, this is an error in my opinion. The Vinciguerra specimen of 58mm SL is based on a non type specimen which may have been collected by Captain Vittorio Bottego in 1896 and was from the “Ueb River” which I understand is in Somalia, not Tanzania. Eccles (1992) also lists a specimen with a maximum size of 6cm. This is obviously based on Gosse, which in turn is based on Vinciguerra. The specimen they discuss is not a type specimen and, as far as I am aware, there are no other discussions on the types that could constitute a lectotype designation. The Guiglia (1935:29) reference refers to Vinciguerra’s work and Guiglia’s work concerns fishes from what is present day southern Somalia. Pfeffer (1897:61) is just a list of species.

Thanks to Dr Thiel, I was sent images of the syntypes and can show them here exclusively for the first time. ZMH 12118 (Figs 1-3) consists of one specimen of 97mm TL (just less than 2mm longer if the kink in the lower lobe of the caudal fin is straightened out), and

approximately 86mm SL. The TL size matches that in Pfeffer (1893).



Figure 1: ZMH 12118 (largest specimen) syntype of *Synodontis leopardus*. Image by & copyright of ZMH

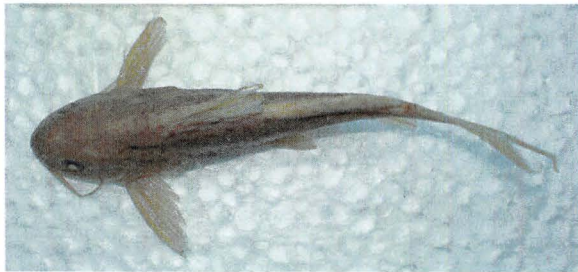


Figure 2: ZMH 12118 (largest specimen) syntype of *Synodontis leopardus*. Image by & copyright of ZMH

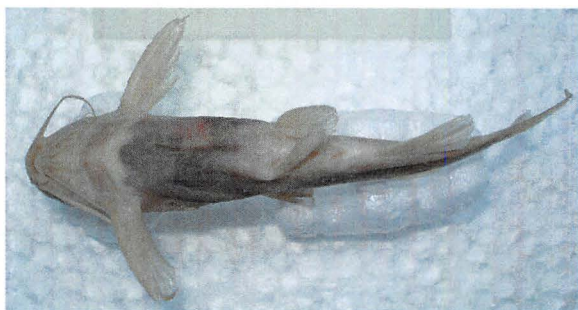


Figure 3: ZMH 12118 (largest specimen) syntype of *Synodontis leopardus*. Image by & copyright of ZMH

There are also five smaller specimens (Figs 4-6) in the same lot ranging from approximately 19mm to 29mm SL. I do not know why there are five small ones and one large when the 1893 account mentions five but, perhaps it was a mistake in the text. What is clear is that the size, pattern, morphology and meristics of the specimens all match that of the 1893 and 1896 accounts.

I therefore consider that ZMH 12118 (certainly the larger specimen and at least 4 of the smaller ones) are the syntypes, especially bearing in mind that they were collected by Stuhlmann on the date and from the locality referred to in the 1893 account; that the “456” matches that given in the 1893 account; and that the largest specimen matches the size given in the 1893 account. I did consider whether to designate a lectotype but decided against this, although subsequent authors may feel it is necessary to do so.



Figure 4: ZMH 12118 (smaller specimens) syntypes of *Synodontis leopardus*. Image by & copyright of ZMH



Figure 5: ZMH 12118 (smaller specimens) syntypes of *Synodontis leopardus*. Image by & copyright of ZMH

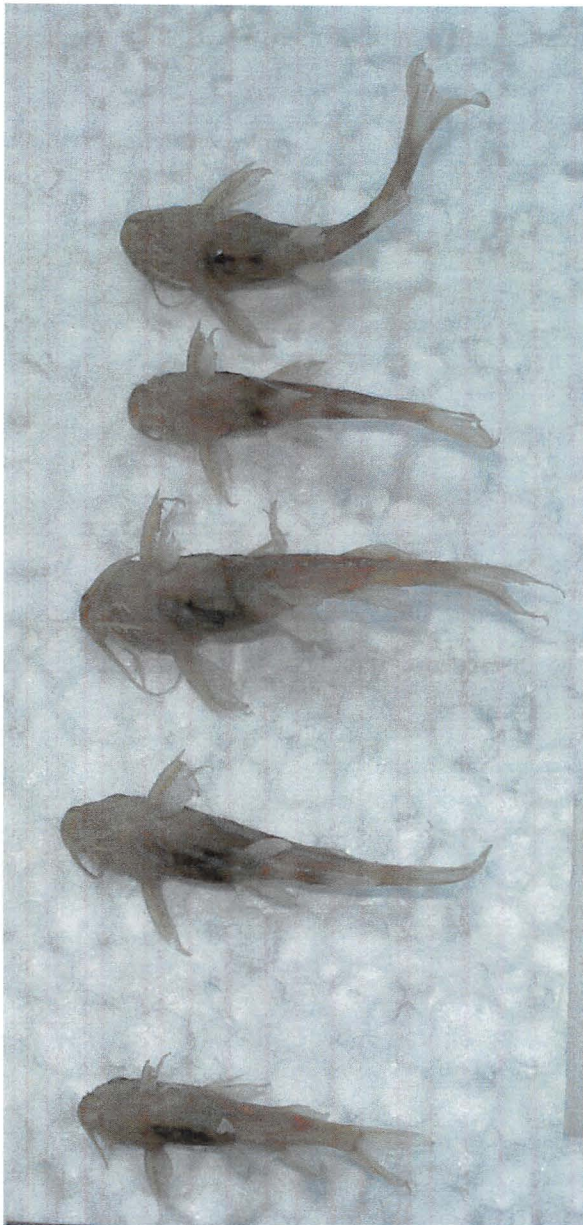


Figure 6: ZMH 12118 (smaller specimens) syntypes of *Synodontis leopardus*. Image by &copyright of ZMH

ZMH 12119 (Fig 7) consists of 5 very small specimens from the same locality and collector. They range from approximately 18mm and 21mm SL. They are now almost completely devoid of any colour and pattern. In view of the fact that they are in a separate lot to the definite large syntype; their label does not provide the same information as that of the syntypes; and they have no pattern that matches the description (unlike the smaller ones in ZMH 12118) I consider that they are not types. So, now we know where the types are and what they look like is the species valid?

So, now we know where the types are and what they look like is the species valid?

Gosse (1886) listed it as valid. He had the data in the 1893 and 1896 accounts but had no specimens to work from. Seegers (1996) considered it a possible synonym of *S. zanzibarica* Peters, 1868, and so did De Vos (2001) but again they had no specimens to work from. Now I have found and had access to images of the



Figure 7: ZMH 12119 dorsal view. Image by &copyright of ZMH

syntypes this, combined with the information in Pfeffer (1893 and 1896), allows us to see if it and other species described since 1896 are valid. I have checked the descriptions of all known *Synodontis* species that occur outside Tanzania and have found no match.

According to Eccles (1992) there are 19 other species occurring in the country of Tanzania. However, Seegers (1996) added a new species and synonymised two with a name that was not in use at the time. Wright & Page (2006) described at least another one and perhaps more as others were described from Lake Tanganyika but from its shores bordering other countries. Wright & Page also revived some species from synonymy. However, I am concentrating on those species that are not from Lake Tanganyika and Lake Victoria as I am certain that *S. leoparda* is not synonymous with any of those species. Therefore the current list of species known from Tanzania but not including those caught on the Tanzanian shores and tributaries of Lake Tanganyika and Lake Victoria are:

*S. afrofisheri* Hilgendorf, 1888

*S. fuelleborni* Hilgendorf & Pappenheim, 1903

*S. matthesi* Poll, 1971

*S. punctulata* Günther, 1889

*S. ricardoae* Seegers, 1996

*S. rufigiensis* Bailey, 1968

*S. rukwaensis* Hilgendorf & Pappenheim, 1903 (see discussion below)

*S. zambezensis* Peters, 1852

*S. zanzibarica* Peters, 1868a

Because all the syntypes are small and therefore probably not adult, it is difficult to easily say how *S. leoparda* differs from the species listed above. However, the information in Seegers (1996) has been very useful as it accounts for the colour and pattern changes that occur in *Synodontis* of the Lake Rukwa drainage and in the eastward flowing rivers Wami, Rufiji (or Rufigi) and Ruvu.

Using the information from the original descriptions and those of Boulenger (1911 & 1916), Poll (1971) and Seegers (1996) and images of the types, I have compared the above species to the written accounts and images of *S. leoparda*. Direct physical comparison using additional specimens of each species utilising morphometrics is desirable but I have been unable to do this. Fin meristics are very similar and do not seem to be of much use to differentiate species. Because of the small size of the syntypes of *S. leoparda* the size and shape of the humeral process and other bony plates has not been as useful as it can be when looking at adults, unless the specimens in comparison are of a similar size. The teeth are all quite similar between most of these species here and the number of teeth increases with size in some *Synodontis* anyway. Without having access to accurate morphometrics and only being able to use images, the most obvious morphological character that I have found is that of the lips. In *S. leoparda*, *S. rukwaensis* and its current junior synonyms, *S. rufigiensis*, *S. matthesi*, *S. fuelleborni*, *S. punctulata*, and *S. zanzibarica* the upper lip at the corners, near the junction with the lower lip, is to varying degrees much more fleshy and larger when compared to *S. afrofisheri*, *S. ricardoae* and *S. zambezensis*.

In addition to this difference *S. leoparda* differs from:

*S. afrofisheri* by, at a similar size, having small spots versus blotches and spots in *S. afrofisheri*; not having the cleithrum near the base of the pectoral fin as thick and distinctly visible when viewed from below versus the opposite in *S. afrofisheri*.

*S. ricardoae* by the longer outer mandibular barbels; the inner mandibular barbels being thinner and not having thick appendages; the spots on the body being smaller than in *S. ricardoae*.

*S. zambezensis* – see discussion below.

When compared to the remaining species, notable differences are as follows:

*S. fuelleborni* by, at a similar size, having the spots being dispersed and not forming patches (versus the opposite); the lips being fleshier.

*S. matthesi* by the premaxillary teeth being arranged in a narrow single patch versus the teeth patches being

broad, flattened and split; the outer mandibular barbels reaching to the base of the pectoral fin spines versus not reaching; the lower lip not being flattened versus the opposite. *S. matthesi* has the area above the humeral process darkened as does *S. leoparda* but it is not clear if the darkened area in *S. leoparda* is due to preservation and in life the area may not be pigmented.

*S. punctulata* by the humeral process being not as wide at its base; the corners of the upper lips being fleshier, the area above the humeral process, i.e. the skin over the swim bladder area, is darkened versus not in the lectotype of *S. punctulata*; the lobes of the caudal fin being curved at their tips. They come from the same river system. Direct comparison of adults may yield other differences or similarities. De Vos (2001) and Seegers *et al* (2003) class *S. punctulata* as a possible synonym of *S. zanzibarica*. Although the types of those two species are of different sizes there still appears to be possible differences in the shape of the head, body and the humeral process and the shape of the fins, particularly the lobes of the caudal fin. However, similar differences in the humeral process are apparent in the types of *S. zambezensis*, due to gender according to Peters, 1868b, and it may also be the case in specimens of *S. nebulosa*, if the holotype is compared with the specimen in Balon, 1974. Until further comparisons are made then *S. punctulata* must remain distinct from *S. zanzibarica*. *S. leoparda* may be a junior synonym of *S. punctulata*, representing the juvenile of that species, but further comparisons are needed using more and similarly sized specimens. Until then I class them as distinct.

*S. rufigiensis* by a shorter snout, head, and predorsal length in SL; and by colour and pattern: no black streaks along caudal lobes in *S. leoparda* versus the opposite in *S. rufigiensis*. The lip structure of these two species is very similar; also *S. rufigiensis* has the area above the humeral process darkened as in *S. leoparda*. Please see the excellent image (Fig 8) by Erwin Schraml from Schäfer & Schraml (2004) of a specimen of *S. rufigiensis* from the Pangani River. This specimen is approx. 120 to 140mm Total Length and is very obviously different to the slightly smaller (largest) syntype of *S. leoparda*.

*S. zanzibarica* by larger and fewer dark spots on body and fins; no spots on underside of body versus small spots present in *S. zanzibarica*; adipose fin not as deep; rounded caudal lobes versus sharply pointed in *S. zanzibarica*; head and predorsal profile not as linear; corners of upper lip more fleshy; serrations on outer edge of pectoral fin spine smaller; not having the cleithrum near the base of the pectoral fin as thick and distinctly visible when viewed from below versus the opposite in *S. zanzibarica*. *S. zanzibarica* has the area above the humeral process darkened as in *S. leoparda*, although this may only be visible in preserved specimens.

*S. rukwaensis* and *S. zambezensis*



Figure 8: *Synodontis rufigiensis* from Panagani River. Image by & copyright of Erwin Schraml



Figure 9: ZMB 16311 lectotype of *Synodontis rukwaensis*. Image by & copyright of Mark Allen



Figure 10: BMNH 1922.4.18.27 lectotype of *Synodontis maculipinna*. Image by & copyright of Mark Allen



Figure 11: NMW 18866 holotype of *Synodontis wamiensis*. Image by and copyright of Mark Sabaj & Kyle Luckenbill

Seegers revived *S. rukwaensis* (Fig. 9) from synonymy with *S. zambezensis*. He also classed *S. maculipinna* Norman, 1922 (Fig. 10), and *S. wamiensis* Lohberger, 1930 (Fig. 11) as junior synonyms of *S. rukwaensis* based on, amongst other things, the patterns of the two species matching that of *S. rukwaensis* in its different growth stages. Without any evidence to the contrary I have tentatively agreed with his synonymy. Thanks to James Maclaine and the staff at the photo unit at BMNH I have had access to images of all *S. maculipinna* types. They all vary in terms of what pattern is visible, although one of the paralectotypes still has quite a marmorated pattern, even at circa 85mm SL, which I am not sure is the case in *S. rukwaensis*. However, Seegers synonymy is followed.

Before comparing *S. leoparda* with *S. rukwaensis* I think it is pertinent to comment on the position of *S. rukwaensis* in relation to *S. zambezensis*. Seegers considered them both to be valid but agreed that they were closely related and that *S. rukwaensis* may just be the northern population of *S. zambezensis*. He struggled to find any differences except the pattern. However, the earlier accounts of both species he refers to match very closely in my opinion. The only difference I can see is that of the lips. In the lectotype of *S. zambezensis* the lower lip is not fleshly nor flattened at the corners, as it is in the lectotype of *S. rukwaensis*. However, the paralectotypes of *S. zambezensis* and *S. rukwaensis* both have fleshy lips. I have also referred to Fig. 22 in Crass (1964) which shows a *S. zambezensis* from the lower Pongola River; and this specimen does not appear to have lips as fleshy, although it does have spots on the body and fins at four inches.

Jubb (1967) shows what he classes as a spotted form from the Limpopo River system and a plain form from the Zambesi River of *S. zambezensis*, although the one he calls spotted form may be *S. punctulata*. However, he does provide some interesting comments about the spots in both 'forms'. He states that the plain form, which in my opinion is the true *S. zambezensis*, is plain in life but develops faint spots after being preserved in formalin for some months. He states that the spotted form has some with larger spots than the one figured specimen and those from Lower Lundi River lose the spots after a few weeks in captivity, which is reminiscent of the observations made by Seegers for *S. rukwaensis*.

De V. Pienaar (1978) also shows a live spotted specimen of *S. zambezensis* from the Kruger National Park. Further investigation is needed into the possible differences or lack of them between Tanzanian *S. rukwaensis* and *S. zambezensis* from the river systems further south but, until then, I agree with Seegers that *S. rukwaensis* should be classed as distinct from *S. zambezensis*. It is also worth noting that the holotype of *S. wamiensis* and the lectotype of *S. maculipinna* also have similar lips to *S. leoparda* and *S. rukwaensis*.

It has been difficult for me to differentiate *S. leoparda* from *S. rukwaensis*. As per Seegers, *S. rukwaensis* is known from the Lake Rukwa drainage, Ugalla subdrainage, Malagarasi system, and the eastward flowing rivers of Tanzania south of the Pangani (Wami, Ruvu, and Rufiji). I know of no reliable account from the Pangani system other than Schäfer & Schraml (2004); these two specimens from the Pangani River match the details of *S. rukwaensis* given by Seegers in all factors. The specimen with more spots (Fig 12) is approx. 80 to 100mm TL and the other specimen (Fig 13) is around 130 to 150mm TL.

The smaller specimen is of a similar size to the largest syntype of *S. leoparda* and appears to differ by the adipose fin being relatively shorter and deeper. However, in the type series of *S. rukwaensis* and *S. zambezensis* there is a considerable difference in the relative height and length of the adipose fin even in specimens of a similar size, which doesn't seem to be the case in the types of *S. maculipinna*. I cannot see any other notable differences that could not be explained by specimen size, gender or some reasonable variation. Taking this into account and the confirmed presence of *S. rukwaensis* in the Pangani River, I tentatively consider that *S. leoparda* and *S. rukwaensis* are subjective synonyms. *S. leoparda* is the senior synonym and therefore would take priority over *S. rukwaensis*, *S. wamiensis*, and *S. maculipinna*. I do not consider that Article 23.9 of the Code applies in this case. As with *S. punctulata* further and direct comparisons are needed to confirm for definite the identity and validity of *S. leoparda*.

As an alternative to the above tentative synonymy I have considered whether *S. leoparda* could represent the specimen shown in Fig. 174 in Seegers as "*Synodontis* sp. Ruvu drainage" (not the Pangani Ruvu/Rufu). I have not had access to Seegers' specimens or the Stuhlmann collection specimens from "Dunde" (ZMB 13.683) that he states are conspecific with his specimens. However, it is clear from the figure in Seegers that *Synodontis* sp. 'Ruvu drainage' has more spots than *S. leoparda* and is probably closer to *S. punctulata*.

### Specimens used (images)

*S. afrofisheri* – holotype ZMB 12745

*S. fuelleborni* – lectotype ZMB 16309

*S. maculipinna* – lectotype BMNH 1922.4.18.27; paralectotypes BMNH 1922.4.18.28-34

*S. matthesi* – holotype ZMA 109743

*S. punctulata* – lectotype BMNH 1887.11.3.47

*S. ricardoae* – holotype MRAC 94-34-P-1093

*S. rufigiensis* – holotype BMNH 1968.6.12.1

*S. rukwaensis* – lectotype ZMB 16311; paralectotypes ZMB 16310, ZMB 32380

*S. wamiensis* – holotype NMW 18866

*S. zambezensis* – lectotype ZMB 3119; paralectotypes ZMB 3115-18

*S. zanzibarica* – lectotype ZMB 6846; paralectotypes ZMB 22650

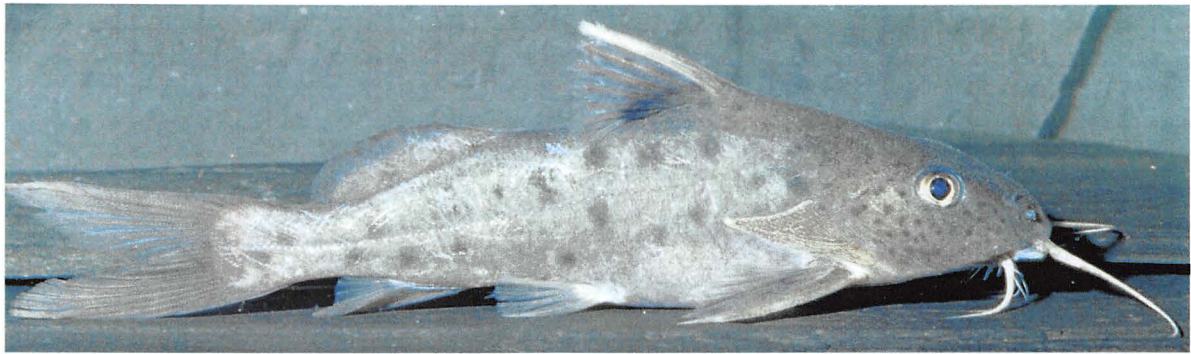


Figure 12: *Synodontis* from the Pangani River. Image by & copyright of Erwin Schraml



Figure 13: *Synodontis* from the Pangani River. Image by & copyright of Erwin Schraml

## Acknowledgements

Dr Ralf Thiel and Irina Eidus of the ZMH for providing images of and information on the ZMH specimens; Dr. Peter Bartsch of the ZMB for the ZMB paralectotypes and provision of information; Dr Emmanuel Vrevren for the MRAC images; Mark Sabaj and Kyle Luckenbill for the holotype of *S. wamiensis*; Mark Allen for permission to use his images of primary types; Erwin Schraml for the use of his images; Tom Vigliotta of Cornell University Museum of Vertebrates for assistance with some references; James Maclaine, Katie Anderson, and Sally Jennings of BMNH for images of the *S. maculipinna* types.

## References

- Bailey, R. G., 1968, A new species of *Synodontis* (Mochokidae) from Tanzania, East Africa, *Rev. Zool. Bot. Afr.* v. 77 (nos. 3-4): 346-348.
- Balon, E. K., 1974, *Fishes of Lake Kariba, Africa*, TFH Publications, 1-144.
- Boulenger, G. A., 1911, *Catalogue of the fresh-water fishes of Africa in the British Museum (Natural History) London*. v. 2: i-xii + 1-529.
- Boulenger, G. A., 1916, *Catalogue of the fresh-water fishes of Africa in the British Museum (Natural History) London*, v. 4: i-xxvii + 1-392.
- Crass, R. S., 1964, *Freshwater Fishes of Natal*, The Natal Witness (PTY) Ltd, South Africa, 1-167.
- De Vos, L., 2001, *Synodontis manni* (Teleostei: Mochokidae), a new catfish from the Lower Tana River, Kenya, *Ichthyol. Explor. Freshwaters* v. 12 (no. 1): 41-50.
- De Vos, L., L. Seegers, L. Taverne and D. Thys van den Audenaerde, 2001, L'ichtyofaune du bassin de la Malagarasi (système du Lac Tanganyika): une synthèse de la connaissance actuelle, *Ann. Soc. Zool. Belge* v. 285: 117-134.
- De V. Pienaar, U., 1978, *The Freshwater Fishes of the Kruger National Park*, National Parks Board of South Africa, 1-91.
- Eccles, D. H., 1992, *Field Guide to the Freshwater Fishes of Tanzania*, FAO Species Identification Sheets for Fishery Purposes, Rome, i-v + 1-145.
- Eschmeyer, W. N., *Catalog of Fishes*, on-line version (updated 29/1/08): <http://www.calacademy.org/research/ichthyology/catalog/fishcatsearch.html>
- Ferraris, C. J., Jr., 2007, Checklist of catfishes, recent and fossil (Osteichthyes: Siluriformes), and catalogue of siluriform primary types, *Zootaxa* No. 1418: 1-628.
- Glaser, U. (Snr), 2000, *Aqualog Photo Collection 1*, Verlag A. C. S. GmbH, Germany, 1-92.
- Gosse, J.-P. in Daget et al, 1986, Mochokidae (pp. 105-152), Check-list of the Freshwater Fishes of Africa. CLOFFA, ISNB Bruxelles, MRAC Tervuren, ORSTOM Paris: i-xiv + 1-520. v. 2.
- Grant, S., 2003, On the validity and identity of some species of *Synodontis* Cuvier, 1817 (Siluriformes: Mochokidae), *Cat Chat, J. Catfish Study Group (UK)* v. 4 (no. 2): 15-19.
- Guiglia, 1935, Spedizione Zoologica del Marchese Saverio Patrizi nel Basso Giuba e nell'Oltregiuba, giugno-agosto 1934, *Pesci, Ann. Mus. civ. Stor. nat. Giacomo Doria*, 58: 27-49, 3 figs.
- Günther, A., 1889, On some fishes from Kilima-Njaro District, *Proc. Zool. Soc. Lond.* 1889 (pt 1): 70-72, Pl. 8.
- Hilgendorf, F. M., 1888, Fische aus dem Victoria-Nyanza (Ukerewe-See), gesammelt von dem verstorbenen Dr. G. A. Fischer. *Sitzungsber. Ges. Naturf. Freunde Berlin* 1888: 75-79.
- Hilgendorf, F. M. and P. Pappenheim, 1903, Über die Fischfauna des Rukwa-Sees, *Sitzungsber. Ges. Naturf. Freunde Berlin* 1903 (no. 6): 259-271.
- International Code of Zoological Nomenclature, International Commission on Zoological Nomenclature, Fourth Edition, 1999.
- Jubb, R. A., 1967, *Freshwater Fishes of Southern Africa*, A. A. Balkema, Cape Town, Amsterdam, i-248.
- Lohberger, K., 1930, Fische aus dem Wamifluss, *Zool. Anz.* v. 89 (nos. 3/4): 88-94.
- Morris, P.J., M.H. Sabaj, and C. Hoeflich. 2004, *All Catfish Project Support Site*, [WWW image database] URL <https://acsi.acnatsci.org>.
- Morris, P.J. [programmer] and M.H. Sabaj [editor], 2006, *ACSIimagebase: A digital archive of catfish images compiled by participants in the All Catfish Species Inventory*, [WWW image Database] URL <http://acsi.acnatsci.org/base>

- Norman, J. R., 1922, Four new fishes from Tanganyika Territory, *Ann. Mag. Nat. Hist.* (Ser. 9) v. 9 (no. 54): 686-688.
- Peters, W. (C. H.), 1852, Diagnosen von neuen Flussfischen aus Mossambique, *Monatsb. Akad. Wiss. Berlin* 1852: 275-276, 681-685.
- Peters, W. (C. H.), 1868a, Ueber eine von dem Baron Carl von der Decken entdeckte neue Gattung von Welsen, *Chiloglanis deckenii*, und einige andere Süßwasserfische aus Ostafrika, *Monatsb. Akad. Wiss. Berlin* 1868: 598-602, Pl. 2.
- Peters, W. (C. H.), 1868b, Naturwissenschaftliche Reise nach Mossambique auf befehl Seiner Majestät des Königs Friedrich Wilhelm IV in den Jahren 1842 bis 1848 Ausgeführt. Zoologie. IV. Flussfische: i-viii + 1-116, Pls. 1-20.
- Pfeffer, G. J., 1893, Ostafrikanische Fische gesammelt von Herrn Dr. F. Stuhlmann in Jahre 1888 und 1889, *Jahrb. Wiss. Anst. Hamburg* v. 10: 131-177, 3 pls.
- Pfeffer, G. J., 1896, Die Thierwelt Ost-Afrikas und der Nachbargebiete. Lief. v. Die Fische Ost-Afrikas. i-xviii + 1-72. [Perhaps appeared first in 1894.]
- Pfeffer, 1897, Zur Faunistik Deutsch-Ost-Afrikas. 2. Fische, *Arch. Naturgesch.*, 63(1): 59-62
- Poll, M., 1971, Révision des *Synodontis* Africains (Famille Mochocidae), *Ann. Mus. R. Afr. Cent. Ser. 8 Zool.* No. 191: 1-497.
- Schäfer, F. and E. Schraml, 2004, Fische aus dem Pangani-River, *DATZ*, 57(2): 68-69.
- Seegers, L., 1996, The fishes of the Lake Rukwa drainage, *Ann. Soc. Zool. Belge* v. 278: 1-407.
- Seegers, L., L. De Vos and D. O. Okeyo, 2003, Annotated checklist of the freshwater fishes of Kenya (excluding the lacustrine haplochromines from Lake Victoria), *J. East Afr. Nat. Hist.* v. 92: 11-47.
- Vinciguerra, D., 1897, Pesci raccolti dal Cap. V. Bottego durante la sua seconda spedizione nelle regioni dei Somali e dei Galla, *Ann. Mus. Civ. Stor. Nat. Genova* (Ser. 2a) v. 17: 343-364.
- Wright, J. J. and L. M. Page, 2006, Taxonomic revision of Lake Tanganyikan *Synodontis* (Siluriformes: Mochokidae), *Bull. Florida Mus. Nat. Hist.* v. 46 (no. 4): 99-154.

## Invasive Catfishes No. 3: *Pterygoplichthys*

Heok Hee Ng

In the third part of our series on non-native, invasive catfish species, we look at what is arguably the most successful group of invasive catfishes, the sailfin catfishes *Pterygoplichthys* spp. Native to South America, these catfishes are bred and sold in vast numbers for the aquarium trade. This easy access (in terms of availability and price) makes sailfin catfishes a ubiquitous feature of many home aquariums and, thus, prime candidates for unwanted introductions by irresponsible aquarists dumping unwanted pets into local waterways.

There are 14 species of sailfin catfishes, according to the Ferraris catfish checklist, but only four species have been recorded as alien invasive species: *P. ambrosetti*, *P. disjunctivus*, *P. multiradiatus*, and *P. pardalis*. The following table summarizes what is known about the invasive range of these four species:

Species / Native range / Invasive range

*Pterygoplichthys ambrosetti* / Paraguay, middle Paraná, Bermejo, and Uruguay river drainages / USA (Texas)

*Pterygoplichthys disjunctivus* / Madeira River drainage of Brazil and Bolivia / Indonesia, Philippines, Singapore, Taiwan, USA (Florida)

*Pterygoplichthys multiradiatus* / Orinoco River drainage / Mexico, Puerto Rico, Taiwan, USA (Florida, Hawaii)

*Pterygoplichthys pardalis* / Amazon River drainage of Brazil and Peru / Indonesia, Malaysia, Mexico, Philippines, Singapore

Members of the genus *Pterygoplichthys* are large loricariids that typically reach sizes in excess of 40 cm TL. They are primarily detritivorous, but will also eat benthic invertebrates and attached algae. *Pterygoplichthys* have the ability to breathe air (through their long, coiled intestines), and are able to

survive for up to 30 hours out of water. Because of their generalized diet, ability to breathe air, parental care of eggs and young, and broad environmental tolerances, *Pterygoplichthys* species have become very successful invaders wherever they are introduced. *Pterygoplichthys* infestations have reached plague proportions in the Philippines (where the fish is known locally as the janitor fish, for its purported cleanup habits), with thousands being hauled out of the Marikina River every day in efforts to rid it of the fish.

Although the negative impacts of invasive *Pterygoplichthys* species have not been fully ascertained, thousands of nesting tunnels excavated by male *P. multiradiatus* in reservoir banks in Hawaii have contributed to siltation problems. In Puerto Rico, endangered Brown Pelicans were observed to have strangled while trying to consume *Pterygoplichthys* catfishes. Similarly, these catfishes are thought to cause significant changes in food web structure and compete with native species for food and space outside of their native range.





## Convention 2008 – More than Just Two Days of Lectures

Danny Blundell

### Friday 15<sup>th</sup> February:-

The Committee and a band of helpers arrived at the Britannia Hotel Conference Centre to organise the forthcoming event and, by 6pm, the specialist societies were installed, the lecturers had arrived and the audio/visual equipment had been set up.

An hour later, after showering and changing, the Convention was underway. We all met in the bar for an aperitif, to renew old catfish acquaintances and to make new ones. A three course meal followed, with yet more catfish chat. The Convention lecturers and attending professionals were seated at different tables so that the members could meet them prior to the main event.



After the meal we had our first forum, this being the culmination of the year's work at the CSG monthly meetings. This year it was delivered by Brian Walsh, the subject being 'Catfish Mouths', followed by audience participation.

On completion of the programme, people spent the next hour or seven in small groups enjoying good company and a glass of something nice [at happy hour prices], some played pool or darts.



Julian Dignall et al discussing ???



Three of our committee preparing for the work to come.

### Saturday 16<sup>th</sup> February :-

Saturday morning consisted of a series of workshops or lectures. Each person could select which talk they would attend, before moving on to the next one of their choice. The choices were:-

- Wood carving
- British Cichlid Association
- British Livebearer Association
- Fish Photography
- Live Foods
- Water Quality

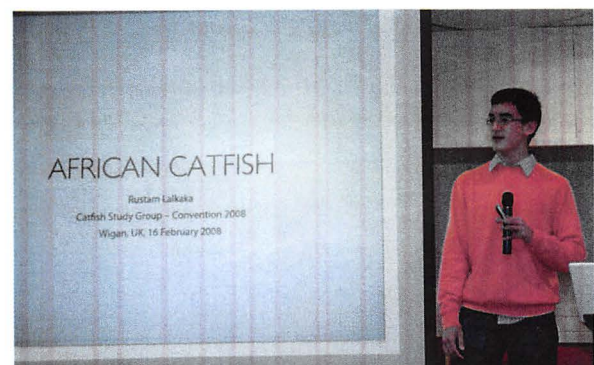
- Diseases & Parasites
- Aquarian Products
- Arcadia Products

The Saturday morning workshops were terminated at midday, as lunch was ready. After a good meal the Convention continued with the next lecture:-

#### **RUSTAM LALKAKA:-**

*African catfish from the Nile, Rift Valley and the Congo.*

Rusty showed numerous slides depicting these families, concentrating on the many and varied fish that he has kept.



A tea break followed, these interludes being an ideal opportunity to discuss and debate the previous lecture content with friends or the lecturers.

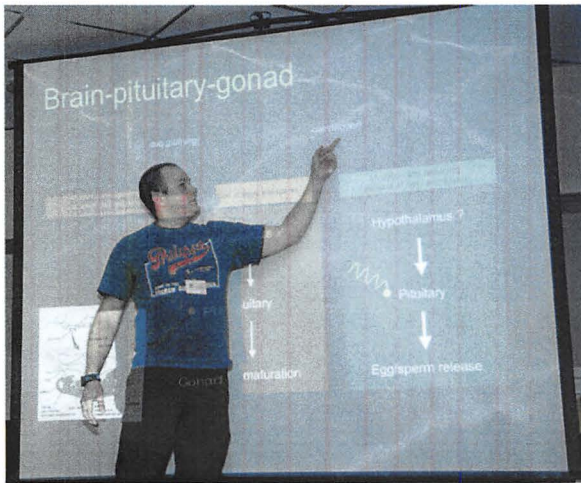
The final lecture of the day was delivered by:-

**DR. MIKE HARDMAN:-**

*Reproduction in Catfish:-*

- 1 - Review of what is known
- 2 - Endocrinology of Reproduction

This fascinating talk proved to be a real ‘eye opener’ for those present who not only want to keep a certain species but provide the ideal conditions for them to reproduce. The CSG is hoping to produce a Cat Chat article of the lecture in the near future.



Mike in full flow.

We closed day one with a raffle with many prizes, including:-

- £200 Power filter
- Internal Power filter
- Conductivity meter
- Binoculars
- Wine & Fish food.

The delegates booked for the evening meal, and those staying at the venue prepared themselves for the evening. This consisted of a three course meal, followed by a forum on ‘Catfish Spawning Triggers’.

The Convention delegates continued with their discussions deep into the night, aided by the beer at ‘Happy hour prices’. Three of our European visitors are seen discussing ???.



**Sunday 17<sup>th</sup> February:-**

Following a good breakfast we opened the doors at 09:30, our guests being greeted by our ‘Booking-in Crew’.



At 10:00 we opened with the first lecture of the day given by :-

**DR MIKE HARDMAN:-**

*How reproduction biology relates to other aspects of catfish biology.*



Chairman, Ian Fuller, apparently singing his introduction to Mike [pictures never lie?].

Coffee and biscuits were next, followed by a lecture given by:-

**MARK BREEZE:-**

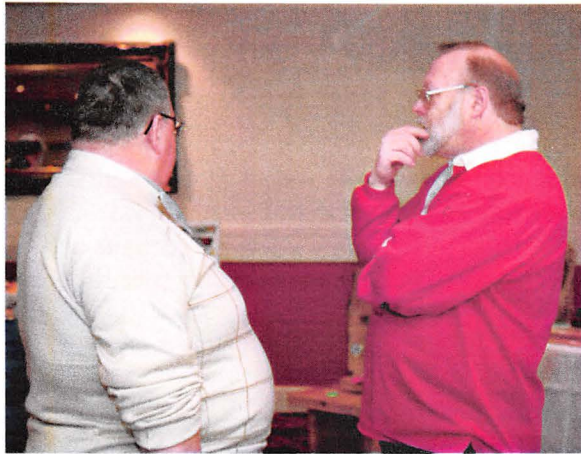
*Keeping and breeding Dwarf Cichlids*



Mark’s talk showcased his extensive knowledge of this group of fishes, and covered biotope, water quality,

food and breeding techniques.

The lunch interval was next, which gave us time to talk to the lecturers and ask them more questions.



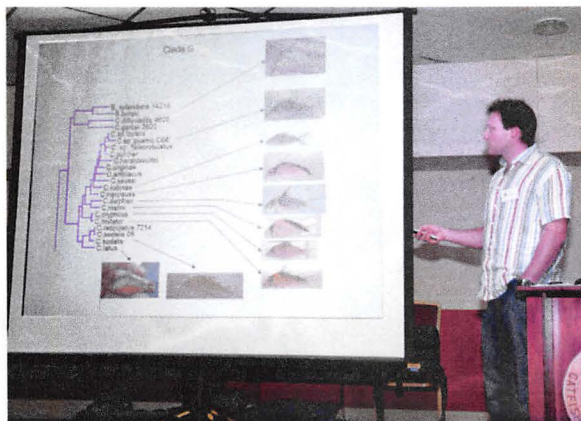
A contemplative Bob Barnes, probably thinking Cichlids?

Lunch was followed by a lecture given by:-

**DR. MARTIN TAYLOR:-**

*Phylogeny of Corydoradinae Catfish*

This was the most scientifically complex talk of the weekend, looking at the relationship between the species at the DNA level.



One of Martin's complex slides.

Coffee and biscuits was followed by the last lecture of Convention 08 given by:-

**DINYAR LALKAKA:-**

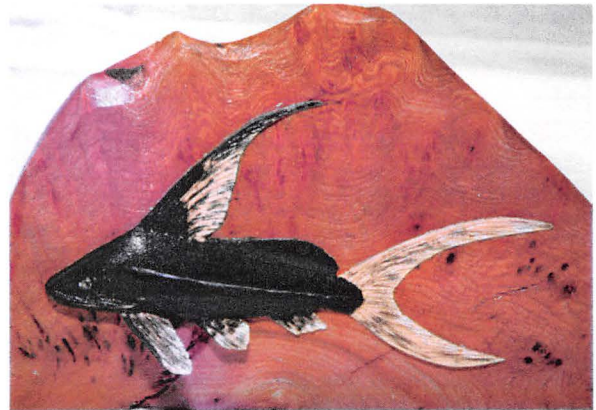
*Asian Catfish*



Dinyar's talk covered a variety of the Asian catfish from the diminutive to the massive and, as a finale, used his extensive knowledge and experience to show how he had kept many of the species.

This was followed by our second raffle, which was a duplicate of Saturday's.

The final act was for Ian Fuller to thank our invited lecturers for all of their work, the many delegates who had travelled from USA, Finland, Denmark, Norway, Scotland and Wales and to present each lecturer with a typically-superb carving by Brian Walsh as a memento of the Convention.



Black lancer for Mike Hardman.



Dwarf cichlid for Mark Breeze



Corydoras for Martin Taylor



Synodontis Granulosus presented to Dinyar and Rusty Lalkaka

The Committee then packed away all of the equipment and left the hotel for another year satisfied with a job well done.

The Convention rarely allows much free time for the organisers. Planning was soon underway for the 2009 event, to be held in March, and the work will probably continue up to if not during the Convention itself!

There is great anticipation about next year's gathering as it should be very special. It will be the 'Anniversary Convention' - 30 years since the first one was held by the old Catfish Association of Great Britain and 10 years since the first organised by its successor, the CSG.

See you there?

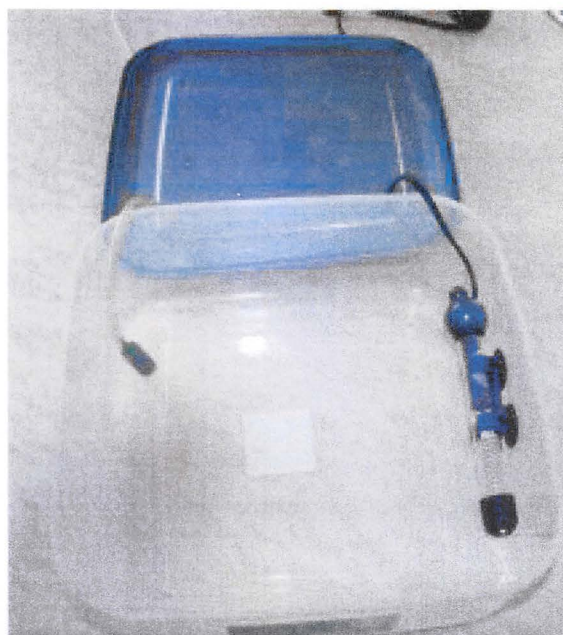
## A Cheap Temporary Tank

Keith Jackson

Mark Walters once mentioned that he has used storage containers as tanks from time to time and this is my interpretation of the idea.

I hadn't planned to take any fish to the 2008 Convention but some requests for my C89s had me wondering how I could keep fish comfortably in my hotel-room over the weekend. I didn't have any suitable tanks but, remembering Mark's conversation, I went down to our local supermarket to see what they might have that I could improvise something from.

I bought a seven-litre cake box, with a tight-fitting lid for £1.94. It isn't particularly deep but is more than adequate for some small fish. I drilled three, 6mm holes in the lid. One I used for the heater lead, the second for an air-line to a small, mains-powered pump and the third was left open for gas flow. We had no problems with the system, which kept the fish in perfect condition. A very cheap and simple solution to a tricky problem!



The Finished Item, Ready for Use



The Lid, Showing the Three Holes



# CATFISH STUDY GROUP

## 2008 Open Show sponsors



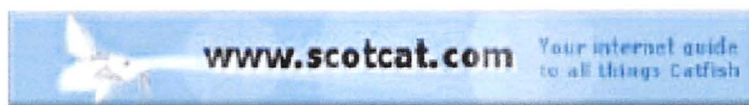
# AQUARIAN



# MIDLAND WATERLIFE



PlanetCatfish.com  
The online fishkeeping community for Corydoras & other fish



# practical fishkeeping



## 2008 Dates for Your Diary

<b>July 20th</b>	Diversity in Catfishes
<b>August 17th</b>	Showing and Judging Catfish
<b>September 21st</b>	Open Show & Auction (35 Catfish classes)
<b>October 19th</b>	Plants for the Catfish aquarium
<b>November 16th</b>	Autumn Auction (Pre booking Roy Barton 01942 248130)
<b>December 14th</b>	Christmas meeting - not to be missed :-)

## Magazine Closing Dates

Normally the 1st of the Month of Publication, except for the September 2008 issue, *which will close on 24th August*

*Please note:* When submitting articles, if you supply all the images as separate files it makes them much easier to import into the software so that they display to their best advantage in Cat Chat. Thanks.

*Production of Cat Chat is sponsored by:*



Have You Heard  
Postage is Free @  
Midlandwaterlife.com

Yes but  
Have You Seen The  
Selection Of Aquatic  
Products



Have You  
Postage is  
Midlandwa

For Top Service Shop Online  
@  
[midlandwaterlife.com](http://midlandwaterlife.com)  
Or visit one of our shops:-  
20 The Strand Bromsgrove  
Wores B61 8AB  
Tel (01527)879207  
&  
29-31 Lowesmoor  
Worcester WR1 2RS  
Tel (01905) 25157

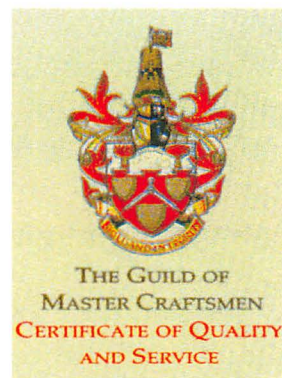
**MIDLAND  
WATERLIFE**

Caring for your fish



# G.B.W

## Products & Services



**High class joinery**

**Cabinets Furniture**

**Wood carvings**

**COMMISSIONS UNDERTAKEN**

Write to: Brian Walsh

9 Marsh Terrace  
Darwen  
Lancs  
BB3 0HF

Phone: (01254)776567  
Mobile: 07977 428 788  
Email: g.b.w@brianwalsh1.  
Freeserve.co.uk

