

# **CAT CHAT**

**The Journal of the Catfish Study Group (UK)**

The Family Doradidae or "Talking Catfishes"



Da River fishermen hunt valuable tiger catfish to possible extinction



IN SEARCH of HARA HARA or  
A STUDY OF A FEW ERETHISTINI

OUT OF AFRICA (ANGOLA Part 1)



'What's New'

**Volume 7 Issue Number 3  
September 2006**

## CONTENTS

- 1 Committee
- 2 From The Chair
- 3 Da River fishermen hunt valuable tiger catfish to possible extinction  
(Vietam News 16-07-2006)
- 6 The Family Doradidae or "Talking Catfishes" By Chris Ralph
- 9 IN SEARCH of *HARA HARA* or A STUDY OF A FEW ERETHISTINI  
By Adrian W Taylor
- 23 'What's New' September 2006 by Mark Walters
- 25 OUT OF AFRICA (ANGOLA Part 1) BY Bill Hurst
- 28 George Albert Boulenger (1858-1937) An insight by A.W. Taylor

**Thank you for your patience. Fortunately, some people came up trumps to save this issue. I'm sure that there would be some moans and groans if I had missed issuing this journal. Without your information, photos or articles, there is no Cat Chat.**

**Thank you to those of you who did contribute.**

**Articles for publication in Cat Chat should be sent to:**

Bill Hurst  
18 Three Pools  
Crossens  
Southport  
PR9 8RA  
England

Or by e-mail to: [editor@catfishstudygroup.org](mailto:editor@catfishstudygroup.org) with the subject **Cat Chat** so that I don't treat it as spam mail and delete it without opening it.

HONORARY COMMITTEE  
FOR THE  
**CATFISH STUDY GROUP (UK)**

**PRESIDENT**

Trevor (JT) Morris

**VICE PRESIDENT**

Dr Peter Burgess  
AquaticsDoctor@aol.com

**CHAIRMAN**

Ian Fuller  
chairman@catfishstudygroup.org

**VICE CHAIRMAN/TREASURER**

Danny Blundell  
treasurer@catfishstudygroup.org

**SECRETARY**

Adrian Taylor  
secretary@catfishstudygroup.org

**SHOW SECRETARY**

Brian Walsh  
showsecretary@catfishstudygroup.org

**ASSISTANT SHOW SECRETARY**

Ann Blundell

**MEMBERSHIP SECRETARY**

Stuart Brown  
membershipsecretary@catfishstudygroup.org

**WEB SITE MANAGER**

webmaster@catfishstudygroup.org

**COMMITTEE MEMBER**

Peter Liptrot  
bolnathist@gn.apc.org

**SOUTHERN REP**

Steve Pritchard  
S.Pritchard@btinternet.com

**CAT CHAT EDITOR**

Bill Hurst  
editor@catfishstudygroup.org

**REFERENCE LIBRARIAN**

Bob Barnes

**SCIENTIFIC ADVISER**

Isaac Isbrücker

**FUNCTIONS MANAGER**

Trevor Morris  
trevorjtc@aol.com

**SOCIAL SECRETARY**

Terry Ward  
terryward433@hotmail.com

**AUCTION ORGANISERS**

Roy & Dave Barton

**CAT CHAT**

The Committee of the CSG (UK) would like to thank the following companies for their support in the production of this journal

Aquarian • Arcadia • Tetra • King British • Waterlife • Algarde •  
Interpet Publishing • JBW, Darwen • BAS, Bolton • Pier Aquatics, Wigan •  
Midland Waterlife, Bromsgrove • Henley Water Gardens • Pets Parade •

# From the Chair



Although still a week or two behind with this issue we are almost back to where we should be and the final issue should be right back on schedule, but! And yes I have said this many times, we need member input to help maintain continuity. I am sure that most if not all of you have something to tell us about your particular Catfish interests, there are also many of you that we know nothing about, so how about those of you that have not sent in a meet the member piece. Take five minutes and put a profile together telling us about yourself and your Catfish interests and send it with a picture of yourself to the Editor. We would also like to hear your moans & groans if you have any, or suggestions on how we can improve our service.

As you all know, I have over the last couple of issues been talking about a Breeder's Award Scheme, the basics of a program has been formatted and for the past year or so we have been looking to find a suitable candidate to control it. However due to the lack of response it would appear that members do not want such a scheme, this I cannot believe. I am sure many of you have your own views on the subject and would therefore ask you to make comment, whether for or against, I would really like to know if the Breeders Award Scheme is worth the persevering with so please e-mail them to me directly.

There has been a mixed bag of activity for me this quarter, starting at the July meeting. I gave local members a preview of the Corydoradinae Breeding talk I am scheduled to give at the "All Aquarium Catfish" convention in Maryland in October. At the beginning of August the federation of Northern Aquarist Societies (FNAS) held their annual festival and as usual I along with the group's secretary, Adrian Taylor, took and manned the CSG display stand over the weekends event. To be a little different this year I also took along a twenty species Corydoradinae exhibition, which drew

quite a lot of interest from visitors over the two days. Many of the species I displayed were uncommon and not readily available within the hobby.

At the CSG's August meeting it was the turn of the group's president Trevor Morris who gave us an in-depth talk about identifying and keeping his favourite group of Catfishes Aspredinidae (Banjo Catfishes).

The second of our annual major events is our Open Show and Auction held in September. This year's event was held in the new much larger venue at Darwen in Lancashire. The Open Show itself was very well attended with around 130 top quality entries; the auction area was also packed out, almost standing room only. Personally I did not get a chance to spend any money, as I was too busy judging. There will be a full report with a list of all the results in the December issue of 'Cat Chat'

October will also be a busy time the CSG stand will be going to the Federation of British Aquarist Societies (FBAS) Festival of Fishkeeping, which is being held on the south coast at Hayling Island. After the previous successes I will also be putting on the Corydoradinae exhibition, only this time it will feature thirty species and a couple of biotype displays.

Later in the month the Potomac Valley Aquarium Society (Maryland, USA) will be hosting the All Aquarium Catfish convention. The CSG will be in attendance with both Adrian and myself doing our best to recruit new members. This event unfortunately coincides with the CSG's October meeting at which the topic for discussion is "New Catfish Discoveries"

# AQUARIAN

# Da River fishermen hunt valuable tiger catfish to possible extinction

(Vietam News16-07-2006)



**Bend in the river:** The elusive tiger catfish is harder to find on the quiet lower reaches of the Da.

VNS Photos Hoai Thanh

Fisherman in the north's Da River valley have prospered trapping the elusive tiger catfish, a valued delicacy. But, **Do Doan Hoang** and **Thanh Long** warn, they may be about to kill off their golden goose.

It's a fish that has satisfied critical palates of upper class restaurant patrons with its soft boneless filets.

The Chien, or *Bagarius yarelli* to scientists and 'tiger catfish' to hunters

in the northern Da River, is also a name that can frighten the most adventurous fishermen. Even though the species is in danger of being bled out of rivers from excessive hunting, men risk their lives every day diving for the chance to bring one home.

The once-impoverished bank strip along the Hong (Red) River in Viet Tri is now home to splendid houses and mansions, built from the profits generated by this delicacy.

Rainy seasons offer more protection to the species with flooding and rapid currents, but when August sets in, little else stands between Chien and the fishermen's spear.



**Catch of the day:** A tiger catfish can weigh up to 50kg.

### Survival of the fittest

Hunting the Chien has brought out the creative side in many fishermen, who have found different – and severely dangerous – ways to kill their prey.

Giang A Senh takes diving equipment – which is simply a pair of goggles – and a gun with a fishgig built in the barrel to hunt upstream

from Gam River, which runs across Na Hang District's Tuyen Quang Province.

With nothing more than a sense of where he believes the fish to be hiding, Senh jumps into the gorge and begins his mission with a hope that the current won't be too strong and the tiger catfish won't be down too deep.

On a successful job, Senh can bring home a fish weighing 45kg and worth one million dong at the market. "Successful" also means he isn't injured or killed.

But many are ignoring the risks and an ever-increasing number of men are saddling up to put their life on the line. Stories like Senh's have inspired other thrill-seekers, who prefer to ignore conservation efforts to make money off the endangered fish.

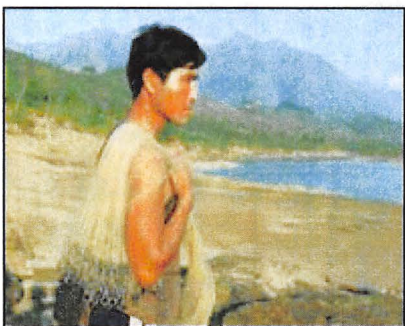
Fishermen in Muong Chien are familiar with Senh's hunting style. Some of them gather in groups to go on long hunting expeditions under deep rocky slits that haven't been combed

through yet by other hunters. Muong Chien has become the central hub of both amateur men and professional groups looking for rivers with abundant amounts of the tiger catfish. They share their own fishing methods with others, and experiment with new ways in groups.

While most dive solo, the use of mines to blast a certain area has sadly become common practise. Although many different species are killed in one instant, hunters only retrieve the Chien and waste the rest.



**Becalmed:** A fisherman checks his nets in the Da River, where overfishing threatens the tiger catfish.



**Big, game hunter:** A fisherman prepares to set out.

Another method is a discharged pulse, which is quieter than a mine but inflicts the same amount of wildlife damage to wildlife.

The risks in these situations seem to outweigh any possible rewards. Many of these men never resurface from the dives they make because of their lack of understanding of dangerous currents. They use no professional diving equipment – just makeshift diving suits and cheap snorkel gear – to make their way down to the river bottom.

Getting thrown against rocks is a common occurrence. An experienced diver named Thanh recalled the horrible moment his brother Vinh drowned while in pursuit of a fish after he was pinned up against a rock by fierce water pressure.

Thanh explains that some others also suffer similar fates at dangerous parts of the Da River. Many others are forced to quit after suffering life-threatening injuries.

### Conservation efforts

Pham Bau, a scientist who specialises in endangered fish, says uncontrolled fishing methods are pushing many valuable species to the edge of extinction, including the giant catfish in Da River.

"The use of mines or discharge pulse should be stopped right away. They are uprooting the existence and reproductive abilities of many species that will never be seen in the river again," Bau said.

The areas where the valuable species usually lay eggs should be protected from uncontrolled fishing activities and publicly known. This will strengthen the species reproductive habits, together with other species that require similar habitats, Bau said.

Local authorities don't have budgets to carry out preservation. An authorised official at Son La Department of Natural Resources and Environment said that his department does not manage the fishing activities on the Gam River, which runs all the way across the province. He doesn't know who would manage such important natural resources.

A knowledgeable source said Son La is too busy with its new hydro-electric plant that is soaking up all local efforts with necessary clearing of the construction site, relocating inhabitants, providing them with new homes and helping them to settle down.

The source said the provincial department of agriculture and rural development does have responsibility to protect aquatic resources but efforts and budgets are limited while the fishermen are constantly hunting.

Scientist Ngo Sy Van at the Institute of Aquatic Research said solutions are proposed by authorities at both central and local levels. But any enforcement of those solutions at very basic layers has proved inefficient.

"It is my biggest concern. To improve the situation, I think authorities need to be clear of responsibilities at each level," Van said. He believes that once people who are actually dealing with the situation understand their every day tasks and benefits, improvements in fishing management will be made.

Both Bau and Van agree that the population of the endangered species can be increased with more fish-breeding farms. After initial research on the ecology of the species, Van plans to present a proposal on new breeding methods.

"The first step is collecting parent fish and helping them to reproduce," Van said. He hopes the proposal will be approved and financed within three years.

Van is positive in his forecast that after breeding the species for three years, his institute can transfer the process to farmers in natural habitat areas. He thinks the farmers will soon be able to provide large amounts of the sought-after fish to markets, which would lower its rare appeal to restaurant-owners and patrons.

Some research on reproductive areas of the species has been carried out but Van said the proposal needs to be in operation as soon as possible, otherwise the uncontrolled fishing would prevent scientists from getting the chance to start their protection process.

Van said some immediate solutions, such as biotourism sites on rivers to limit fishing activities, could be highly effective, but responsible departments need more personnel to work directly on the matter.

Artificial reproduction models and farming specific species are familiar to all Southeast Asian regions, and implementation should be straight forward.

The Food and Agriculture Organisation of the United Nations and the Asian Development Bank had supported a project in Cambodia for farmers to breed the valuable species at Tonle Sap, according to the bank's official website.

Vietnamese scientists also agree that the co-operation with international organisations needs to include plans to protect and manage the precious species. They believe that better management of fishing and fish farming activities would stop fishermen from risking their lives to hunt this valuable part of aquatic life.

VNS

## Fishy facts

Ca Chien, or *Bagarius yarelli*, prefers life inside rocky caves, where it can stay still and wait for smaller prey.

Reproductive activities start in August and end in late October. The maximum weight it can reach is around 40 to 50kg.

The Mekong Management Board wrote that *Bagarius yarelli* in the Mekong region can grow to more than 90cm attain a weight of around 50kg. Rainboth (1996) indicated a maximum size of 200cm.

The World Conservation Union and other related local and international organisations rank the species 'of high economic value'.



## TetraPlecomin

Complete sinking food for all algae eating catfish



## CATFISH STUDY GROUP

# CONVENTION

**18 February 2007**

**The Britannia Hotel**

**Almond Brook Road**

**Standish**

**Wigan**

**WN6 0SR**

Full details will appear in the December issue of Cat Chat.

**Don't miss it!**

# AQUALIFE

[www.aqualifeonline.co.uk](http://www.aqualifeonline.co.uk)  
Tel/Fax: 01772 601777



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

Everything you need when it comes to Aquatics

## The Family Doradidae or "Talking Catfishes"

By Chris Ralph © Chris Ralph & Practical Fishkeeping

This original article was first published in Practical Fishkeeping magazine.

There are a number of catfish that belong to the family Doradidae, sub-family Doradinae. Quite often these fascinating catfish are referred to as "Doradids", "Dorads", "Talking Catfish", "Thorny Catfishes" and other names, which cannot be mentioned, as they are too rude! This group of catfish are found throughout South America. There are small doradids and large doradids commonly offered for sale at most good aquatic retailers. The problem with some of the larger species such as *Oxydoras niger* (*Pseudodoras niger* - Mother of Snails Catfish/Black Doradid) and *Pterodoras granulosus* (Common Bacu) is the fact that they would soon outgrow a 72"x 24" x24" aquarium and are therefore not ideally suited to life in an aquarium unless you can provide a large enough aquarium or tropical pond to house them in. As I do not wish to encourage any unsuspecting aquarist to keep large catfish I will concentrate this article on some of the smaller representatives of this family of fish. Those of you that know me will already be aware that this family of fish is perhaps my favourite, as I am unable to resist walking past a dealers tank without looking to see what doradids lurk behind the décor.

Why are they referred to as "Talking Catfishes" I hear you ask? I will now attempt to answer this question. Doradids have two ways in which they can produce "Talking Sounds", which subsequently gives them their common name. The first way of communicating sound is by the fish partially locking their pectoral fins in their sockets, and then the action of moving the fins the fin spines grate against the socket producing the sound. The second way, in which these fish produce sound is via a mechanism known as the "elastic spring mechanism", there is a muscle that is attached to the rear of the fishes skull at one end and to the anterior of the swimbladder at the other end. The fish is able to quickly contract and relax this muscle and as a result it can make its air filled swimbladder resonate to produce

sound. These catfish use these methods of communication as a means of self-defence against would be predators and also as a way in which they can find conspecifics in its natural environment (or aquarium). The doradids can also be described as narrow-breasted or broad-breasted. The narrow-breasted species tend to have feathered barbels a characteristic that the broad-breasted species do not possess. With the broad-breasted species the width between the base of the pectoral fin spines tends to exceed the length of the head.

One of the main features of this family of catfish is the fact that they possess bony projections along the lateral length of their bodies. These bony projections are known as "scutes", which are very sharp just like thorns. These scutes give this family of catfish an almost prehistoric look about them. Care should be taken when removing these fish from an aquarium as they all too often get themselves snagged up in nets. When these catfish are frightened they immediately lock their pectoral and dorsal fin spines erect. These fins have serrated edges and when locked makes the fish safe from would be predators. If nets have to be used then they should be very fine meshed in order to prevent the scutes and fin spines from penetrating it. Some aquarists prefer to pick these catfish up by their dorsal fins taking care not to get their fingers trapped between the pectoral fins and the scutes on the body of the fish, as believe me this can be a very painful experience! If you can use a plastic container or a plastic bag in which to chase the fish this is perhaps the best way of removing the fish from the aquarium. When removing the larger species it is perhaps best to wrap the fish in a bath towel(s) and lift it out of the water (this tends to be a two person job one lifting the head end the other the tail end taking care not to cut your hands on the razor sharp scutes).

The ideal set-up for these catfish would be an aquarium with a sand substrate such as BD Aquarium Sand or fine gravel. Décor should include bogwood in which the



catfish will hide, smooth rocks to avoid damaging the bodies of these fish. Some aquarists use plastic or clay pipes for their catfish to hide in, if these materials are to be used please ensure that they are large enough to allow the catfish to be able to get out of. I have known a number of people to lose their catfish as they have become too large to get out of the pipe and they have subsequently become stressed and died. Wherever possible use large diameter pipes if they are to be used. I would personally recommend an aquarium that is at least 36" x 15" x 12" in order to keep these catfish satisfactorily. The ideal water conditions are pH 6.5-7.5, temperature in the range 22-26°C or 72-79°F and dH up to 15°. These catfish thrive on a mixed and varied diet that includes sinking catfish pellets, granular foods, flake, tablet foods, aquatic snails, shredded prawns, earthworms and frozen foods such as bloodworm. As sand has been mentioned as the ideal substrate for these catfish I would suggest that internal power filtration or external canister filtration be used, as under gravel filtration would not be efficient as the sand would cause it to clog. Weekly or fortnightly 20-25% water changes should also be undertaken to ensure good water quality at all times. When undertaking water changes always ensure that you use a water dechlorinator, preferably one that will treat both chlorine and chloramines, prior to adding the fresh water to your aquarium.

As promised I will now mention a few species that will not grow into "Tank Busters" and would be ideally suited to life in a community type aquarium. Please bear in mind that whilst these catfishes are not predatory they will eat any unsuspecting fish small enough to fit inside their mouths. This said I have kept some of the smaller doradids in with small fish, BUT I am not recommending that you should. I will begin with some of the more commonly seen species and mention also some that are not so readily available.

*Platydoras costatus* commonly known as the Humbug Catfish, the Striped Talking Catfish or Striped Raphael. This particular catfish is readily available from most good aquatic retailers, and is perhaps the most commonly seen representative of this family of catfish. Like most of the doradids it prefers to be kept in a small group, although there may be the odd squabble over

territory. The natural habitat for this catfish is the river system of South America from Peru to Brazil. *Platydoras costatus* can attain a length of 200mm or 8". I have found that when kept in small groups these catfish will soon rid an aquarium of an aquatic snail problem. Single specimens will relish snails but will be unable to rid an aquarium of snails single-handed! Price guide £4-£10 depending upon size.

*Orinocodoras eigenmanni* is more commonly known as the Raphael Catfish. This catfish is not commonly available but to the trained eye the odd specimen can be picked out amongst imports of *Platydoras costatus*, which has been the way in which I have gradually obtained a group of them. *Orinocodoras eigenmanni* has a more pointed snout and its scutes tend to be smaller than those of *Platydoras costatus*. There are other differences as well such as the length of the adipose fin and the shape of the caudal fin, which when viewed side by side is quite apparent. Like most of the doradids these catfish also like to be kept in small groups, which can be difficult when only the odd one or two specimens are available. Fortunately these doradids are quite happy to shoal with *Platydoras costatus*. The natural habitat for these catfish is the Orinoco River system in Venezuela hence its name *Orinocodoras*. This catfish can attain a length of 175mm or 7". Like the other doradids this catfish also relishes aquatic snails as part of its mixed and varied diet. Price guide £5-£15 depending upon size and if the retailer is aware that this fish is amongst *Platydoras costatus*.



*Agamyxis pectinifrons* is commonly known as the Spotted Talking Catfish, White-spotted Doradid and Spotted Raphael. This particular catfish is also quite often available at most good aquatic retailers. The colour pattern tends to differ slightly from individual to individual, but is quite eye catching being jet-black body colour with white to creamy coloured blotches along the

body and fins. Again this catfish prefers its own company so the aquarist should ideally keep them in small groups of between 4 and 6 specimens. The natural habitat for these catfish is throughout the river systems of South America notably in Peru and Pebas. This particular species can attain a length of 140mm or 5½". These catfish thrive on a mixed and varied diet including aquatic snails. Price guide £4-£10 depending upon size and availability.



*Amblydoras hancocki* is commonly known as Hancock's Catfish or Talking Cat. There is also reference made to this catfish under the name of *Amblydoras affinis* just to add to the confusion. This catfish is occasionally seen at some retailers and is quite often imported at no more than 50mm or 2" in length. This species can attain a length of 100mm or 4". Again another catfish that fares better in small groups therefore I would recommend keeping between 4 and 6 specimens together. The natural habitat for these catfish is widespread throughout the rivers of South America from Guyana to Brazil. This particular species prefers water that is neutral and soft with dense vegetation for it to hide amongst. Again these catfish thrive on a mixed and varied diet that includes aquatic snails. Price guide £5-£10 depending upon availability.

*Anadoras grypupus* is commonly known as the Dusky Doradid. This catfish is not very often available for sale to the hobbyist. The odd one or two sometimes appear amongst shipments of *Amblydoras hancocki*, which as juvenile fish share a similar colour pattern. Whilst collecting fish in Peru I was able to collect large numbers of what initially appeared to be *Amblydoras hancocki*, but which later turned out to be *Anadoras grypupus*. The specimens collected were approximately 25mm or 1" in length. This particular species can attain a length of 150mm or 6". Another peaceful doradid that prefers to be kept in groups of at least 6 specimens.

The natural habitat for these catfish is South America, widespread throughout the Amazon Basin. As with *Amblydoras hancocki* these catfish prefer neutral and soft water conditions with plenty of plant cover. They will thrive on a mixed and varied diet including aquatic snails and bloodworm. Price guide £8-£20 depending upon availability.

*Opsodoras stubeli* is commonly known as the Feather Barbels Catfish. This is another species that is not readily available to the hobbyist, but is a very peaceful addition to a community aquarium. This species can attain a length of 115mm or 4¾". Another doradid that prefers safety in numbers assuming that you can purchase them. I would recommend that you keep at least 4 specimens together. The natural habitat for these catfish is the rivers of Peru and Ecuador. Good water quality is required by these fascinating catfish, as is a diet that includes finely shredded shrimp and bloodworm. Price guide £ 8-£15 depending upon size and availability.



*Acanthodoras cataphractus* is commonly known as the Painted Talking Catfish and is also sometimes referred to as the Milky Cat. This catfish is occasionally available to the hobbyist. It can attain a length of 150mm or 6". I have kept these catfish in small groups of 4 specimens when numbers have been available to purchase, otherwise I have kept them with the other species of doradid already mentioned. The natural habitat for these catfish is South America throughout the Amazon River estuary. This species fares well on a mixed and varied diet. Price guide £8-£15 depending upon availability.

There are a number of other species of doradid available to the hobbyist in small numbers, which is why I have concentrated this article on those species mentioned above. I hope that this will give you an insight into this fascinating group of catfish and that some of you reading this article will take up the challenge of keeping them.

# IN SEARCH of *HARA HARA* or A STUDY OF A FEW ERETHISTINI

By Adrian W Taylor

## Introduction

Although the catfish family Erethistidae contains six genera (namely *Caelatoglanis*, *Conta*, *Erethistes*, *Erethistoides*, *Hara* and *Pseudolaguvia*), my study is centered on just two of these, specifically *Erethistes* and *Hara*, collectively known as the Erethistini (De-Pinna 1996)

These catfish first caught my attention around the year 2000. After observing them for a while, I found that I was getting fascinated not only by the way they swam, but how they seemed quite peaceful towards tank mates of a different species, yet quite boisterous towards their own kind, especially when feeding.

I went on to not only to successfully spawn two species, but also raise the fry to a point when I could pass them on to other aquarists.

The first species I successfully spawned, did so again the following year using the same methods I had employed the first time. I did this to make sure that I had spawned them by 'design' rather than accident. After the second spawn, I sent an article to the Catfish Study Group (CSG) relating their spawning [Cat Chat (CSG journal) volume 4, issue 2]. At that time I could find no easily available literature on this species, even the Baensch Photo atlas did not have any reference to the fish in question. So I entitled the article "Breeding *Hara jerdoni*". I knew however that these fish were not *Hara jerdoni*, but hoped that by heading the article as such, I would encourage debate on what these small catfish really were. By chance, in that same edition, of "Cat Chat" Steven Grant had written an article on identification of Moth Cats (*Hara* & *Erethistes*). Where he showed a photographic image of the fish I had bred, and diagnosed them as being *Hara hara*. Indeed in the following issue of "Cat Chat", there was notification that the fish I had labeled "*Hara jerdoni*" was in fact *Hara hara*. I was not convinced that the fish I had bred was *Hara hara*, as identified by Steve Grant. During research into what is "*Hara hara*", I found that I was

looking at what appeared to me as conflicting information to not only what *Hara hara* was but also what other *Hara/Erethistes* were. Even the importers of fish into the UK seem to be at conflict as to what was what. Over a period of 18 months, one store called the same fish by three different names. Due to this not only was I getting more and more frustrated, I also found that these catfishes and what they actually were, was fascinating me.

I spent the better part of eighteen months trying to track down some of the literature and scientific papers that had been published and referenced by various authors on these catfishes. Having limited funds, some I borrowed from the British Library and others I managed to purchase. Some of these sources seemed to me to be at odds with one another and, being of only average intelligence, I was finding it difficult to determine which was which species using these sources. The only exception was *Hara jerdoni*, which is easily distinguished from the others its small size and also the so-called "anchor shape" made by the fish's long pectoral fin spines that gave the fish the appearance of an anchor when viewed from above. The sole reference freely available to me on *Hara filamentosa* only described the fish as "having an extension to the caudal fin". In fact I had in my possession at this time three varying species of *Hara* or *Erethistes* which all showed this extension. This includes the species I had spawned. The more I read each description the more I found that I was becoming uncertain as to what species was being described. After much thought, I decided I should look at this from a different angle, and decided to detail all the *Hara* and *Erethistes* species that I had in my possession of which, at the time, were eight differing types. I would then try to match up my findings to descriptions already available. Two members of my collection I determined were younger, smaller fish of a type I also had. I'd initially been misled by the names used by the mail order company's use of different names; and so these were eliminated from the study.

## Aims

To try and alleviate some of the confusion, surrounding the identification of certain Hara & Erethistes species available to the Aquarist, especially *Hara hara*. Although during my study I will use some references to *Hara jerdoni*, as it is the only one of this group that is easily identifiable, it will not be included in this descriptive work.

## Methods

As well as detailing observations and measurements made from live specimens, I also took measurements and made observations from deceased specimens either from my own stock or that of fish trade retailers. These were obtained using various methods including, visual, photographic imagery and from observations made through a small microscope. Grouping together all the similarities in descriptions from various sources, I then looked to see if any of my findings matched any of the grouped similarities.

## **Descriptive work**

### DESCRIPTION OF TYPE awt/1

#### BODY

Head broad and blunt, rising to the basal bone, this being the highpoint of the body. The body then tapers down to the caudal peduncle. There are many fine granulations running either side of the lateral line, along the body from the mid point of the dorsal vertical and finishing at the caudal peduncle. It is possible for these granulations to go un-noticed to the naked eye, if the fish is in excellent condition. However, under good light these granulations when viewed from above can be seen.

#### COLOUR & MARKINGS IN LIFE

The body is coloured generally dark brown containing small blotches of a lighter brown. The area around the head is mottled, with dark and light browns. There are two bands of a lighter brown running just in front and to the rear of the adipose. The dorsal fin is mainly dark brown in colour with the posterior edge seeming to have a clear crenulations style edge to it, with the adipose fin being similar in appearance. The caudal fin is generally clear with a brown marking in the shape of

a crescent starting from the caudal peduncle and covering two thirds of the fin, the two lobes ending in slightly sharp points, which has a brown blotch within them, which extends to the fork of the caudal fin. The anal fin has a clear posterior edge, followed by a wide rusty brown band, which is followed by another clear band, and a dark rusty brown area where the fin meets the body. The ventral fins are similarly coloured. The pectoral fins are generally light rusty brown with clear trailing edges, and having a white tip to each. There is a clear band arcing from just under halfway on the outer edge and ending where the trailing edge meets the body. The degree of brown colouration and mottled blotches varied from specimen to specimen.

#### SIZE

The females are more rotund than the males and are of a greater size. The largest specimen measured was 40mm SL; which happened to be a female, the largest male measured was 35mm SL.

#### BARBELS

Four pairs, all being annulated. The nasal barbels are between 1mm and 1.5mm in length. The maxillary barbels reach as far back as the pectoral fins; the outer mandibular barbels nearly reach the pectoral fin with the inner ones being slightly shorter.

#### DORSAL FIN

There are six rays to this fin with the first ray being a strong spine having a smooth anterior edge with the posterior edge containing six serrae. The remaining five rays are branched.

#### ADIPOSE FIN

There is only one ray to this fin and that being at the front, with soft tissue posteriorly.

#### CAUDAL FIN

Being crescent in shape, with sharp endings to each lobe, with some specimens showing a 1 to 2 mm extension in the top ray. In total there are eighteen branched rays.

#### ANAL FIN

This fin is positioned directly below the adipose fin, but extends as far as the caudal fin and has nine branched rays.

VENTRAL FINS

These fins are positioned just behind the end of the humeral-cubital process of the caracoid and have six branched rays, which give the appearance of protruding through the soft tissues of the fin.

PECTORAL FINS

These fins are positioned 2 to 2.5 mm behind the eye and finish just in front of the dorsal vertical.

There are six rays with the first ray being a strong spine, which has between fourteen and sixteen serrae on its anterior edge and eight to nine prominent serrae on its posterior edge, the other five rays are branched. These serrae are not divergent which therefore signifies 'Hara type' species.

OCCIPITAL PROCESS

This process is hard to see on healthy fish and is more apparent on dead specimens. There are three narrow processes that extend posteriorly from the main process; one being on the ventral edge and the other two running parallel between 1.5 mm and 2 mm either side, there is small gap between the end of the middle process and the basal bone. Just visible half way between the dorsal fin and the posterior of the humeral-cubital process of the caracoid are two bony nodules, these are fused together beneath the skin and this in turn is fused to the skeleton between the skull and the spinal column.

THE HUMERAL-CUBITAL PROCESS OF THE CARACOID

This process (the pectoral girdle) is prominent and is fused to the skeleton on either side of the body at the intersection between the pectoral spine and the skull. This process extends posteriorly down each side and ends just in front on the ventral fins, and extends anteriorly from the said intersection at a 45-degree angle until they meet just behind the mouth.

NOTES

The body of the female is noticeably broader than the male around the ventral area, with the pectoral fin of the female having a more posterior convex edge to it. The extension to the top ray of the caudal fin is more prominent in the female. The amount of serrae on each

spine maybe related to size and/or sex. On a dead young specimen, which had a total length of 17mm and a pectoral span of 13mm the serrae count on the anterior edge was 12, and the serrae count on the posterior edge was 6. (This specimen was from a spawning of the described fish).

DESCRIPTION OF TYPE awt/2BODY

Head broad and flattened, rising to the basal bone this being the highpoint of the body, the body then tapers down to the caudal peduncle. There are many fine granulations running parallel along the body from the mid point of the dorsal vertical and finishing at the caudal peduncle either side of the lateral line. It is possible for these granulations to go un-noticed to the naked eye, if the fish is in excellent condition. However, under good light these granulations when viewed from above can be seen.

COLOUR & MARKINGS IN LIFE.

The body is coloured dark brown, containing within-it small blotches of a lighter brown. The area around the head is mottled with dark and light browns. There are two bands of a lighter brown running just in front and to the rear of the adipose. The dorsal fin is mainly dark brown in colour with the posterior having a clear crenulation style edge to it; the adipose fin being similar. The caudal fin is generally clear and has a brown marking in the shape of a crescent starting from the caudal peduncle and covering two thirds of the fin, the two lobes ending in slightly sharp points, which has a brown blotch within them, which extends to the fork of the caudal fin. The anal fin has a clear posterior edge followed by a brown band, then another clear band, where the fin joins the body there is a brown area. The ventral fins have a clear posterior edge to them which is followed by a brown band, this in turn is followed by a light brown band; again this is followed by another clear band, which again is followed by the brown and light brown bands, ending where the fin joins the body. The pectoral fin are generally brown with clear posterior edges to them, with a white tips at their ends; there is a clear band arcing away from just under halfway on the anterior edge and ending where the posterior edge meets the body. The degree of brown colouration and

the pattern of the mottled blotches varied from specimen to specimen

### SIZE

The largest specimen measured was 70mm SL. There seems little difference in length between the sexes.

### BARBELS

Four pairs, all being annulated.

The nasal barbels are between 1.5mm and 2mm in length. The maxillary barbels do not quite reach as far back as the pectoral fins; the outer mandibular barbels are slightly smaller than the maxillary barbels; with the inner mandibular barbels being slightly shorter again.

### DORSAL FIN

There are six rays to this fin with the first ray being a strong spine having a smooth anterior edge with nine serrae on its posterior edge from the mid point of the spine to the top and being smooth from the mid point of the spine, down to where it connects with the body.

### ADIPOSE FIN

There is only one ray to this fin and that being at the front, with soft tissue posteriorly.

### CAUDAL FIN

Crescent in shape with slightly sharp endings to each lobe, with some specimens having a 7mm to 10mm extension to the top ray.

### ANAL FIN

This fin is positioned directly below the adipose fin, and extends as far as the caudal fin and has nine branched rays.

### VENTRAL FINS

These fins are positioned just behind the end of the humeral-cubital process of the caracoid and have six branched rays.

### PECTORAL FINS

These fins are positioned 2 to 2.5 mm, behind the eye and finish just in front of the dorsal vertical.

There are seven rays with the first ray being a strong spine. The anterior edge has two distinctive serrae features; from the tip of the fin to a mid point along the spine there are nine to twelve serrae that are quite

visible; from the midpoint to the body joint there are between ten and fourteen small serrae/nodules graduating in size. There are fourteen to sixteen serrae on its posterior edge. These serrae are not divergent and therefore signifies species, 'Hara type'. The remaining six rays are all branched.

### OCCIPITAL PROCESS

This process is hard to see on healthy fish and is more apparent on dead specimens. There are three narrow processes that extend posteriorly from the main process, one being on the ventral edge and the other two running between 3mm and 4mm either side and curving slightly downward, there is a small gap between the end of the middle process and the basal bone. Visible half way between the dorsal fin and the posterior of the humeral-cubital process of the caracoid are two bony nodules, these are fused together beneath the skin and this in turn is fused to the skeleton between the skull and the spinal column.

### THE HUMERAL-CUBITAL PROCESS OF THE CARACOID

This process (the pectoral girdle) is prominent and is fused to the skeleton on either side of the body at the intersection between the pectoral spine and the skull. This process extends posteriorly down each side of the body and ends just in front on the ventral fins, and extends anteriorly from the said intersection at a 45-degree angle until they meet just behind the mouth, with another connecting structure bridging the intersection.

### NOTES

The body of the female is noticeably broader than the male around the ventral area. The colouration of this type seems to go ashen when stressed, so that the colourations instead of being in shades of brown are in shades of grey. The pectoral spines serrae seem to increase in count proportionally according to the size of the specimen.

---

### DESCRIPTION OF TYPE awt/3

#### BODY

Head broad and flattened, rising to the basal bone this being the highpoint of the body, the body then tapers down to the caudal peduncle. There are granulations running parallel along the body from the mid point of the

dorsal vertical and finishing at the caudal peduncle, either side of the lateral line. The first two rows are prominent and visible to the naked eye, however; the remaining rows of granulations are hard to distinguish with the naked eye.

#### COLOUR & MARKINGS in life

The head and body is a light brown to tan colour, with the head having small brown speckles to it. There is a brown band running from just behind the pectoral fins and terminating level with the posterior edge of the ventral fins, this band carries on through the dorsal fin. There is another band of brown running through the adipose and the body in the same manner, ending at the anal fin, which it does not run through. There is also a band of brown at the caudal peduncle and this continues into the caudal fin, making a less distinguished crescent, there is a band of brown just inside the contour of the caudal lobes. The anal fin has a clear posterior edge, then a band of brown, with a tan coloured band where it joins the main body. The ventral fins are tan coloured, with two brown blotchy bands running through them, one just inside the posterior edge and another just inside of where the fins joins the main body. The pectoral fins are tan coloured, containing small brown speckles, with the anterior edge being annulated. There is a very fine brown coloured band, which runs along the posterior edge. The end of the fin, having the appearance that it has tan coloured tips to them.

#### SIZE

The females are more rotund than the males and are of greater size. The largest specimen measured was 60mm SL.

#### BARBELS

Four pairs, all being annulated. The nasal barbels are between 2mm and 2.5mm in length. The maxillary barbels reach as far back as the pectoral fins; the outer mandibular barbels nearly reach the pectoral fin with the inner ones being slightly shorter.

#### DORSAL FIN

There are six rays to this fin with the first ray being a strong spine having a smooth anterior edge with six serrae on its posterior edge, the remaining five rays are branched.

#### ADIPOSE FIN

There is only one ray to this fin and that being at the front, with soft tissue posteriorly.

#### CAUDAL FIN

The posterior edge is more like an arc than a crescent in shape, with the ends being slightly curved, and contains eighteen rays.

#### ANAL FIN

This fin is positioned directly below the adipose fin, with the posterior edge extending level with the posterior edge of the adipose fin and has nine branched rays.

#### VENTRAL FINS

These fins are positioned just behind the end of the humeral-cubital process of the caracoid and have eight branched rays and giving the appearance of protruding through the soft tissues of the fin.

#### PECTORAL FINS

These fins are positioned the same distance away from the eye, as the eye is to the tip of the snout. There are seven rays with the first ray being a strong spine having fourteen to sixteen serrae on its anterior edge; there are eleven serrae on its posterior edge, these serrae are not divergent and therefore signifies 'Hara' Type. The other six rays are branched.

#### OCCIPITAL PROCESS

This process is just about visible in good lighting on healthy fish. There are three narrow processes that extend posteriorly from the main process, one being on the ventral edge and the other two running between 3 mm and 3.5 mm either side and curving slightly downward. The main centre process just reaches the basal bone, although this cannot be readily seen. Just visible half way between the dorsal fin and the posterior margin of the humeral-cubital process of the caracoid are two bony nodules, these are fused together beneath the skin and in turn fused to the skeleton between the skull and the spinal column.

#### THE HUMERAL-CUBITAL PROCESS OF THE CARACOID

This process (the pectoral girdle) is prominent and is fused to the skeleton on either side of the body at the intersection between the pectoral spine and the skull. This process extends posteriorly down each side and

ends just in front on the ventral fins. Extending anteriorly from the intersection point, at a 45-degree angle until they meet 5 mm behind the mouth.

### NOTES

The body of the female is noticeably broader than the male around the ventral area. When in motion the body appears to elongate. Younger specimens were of a darker colouration.

---

### DESCRIPTION OF TYPE awt/4

#### BODY

Head broad and blunt, rising to the basal bone, this being the highpoint of the body. The body then tapers down to the caudal peduncle. There are many fine granulations running parallel along the body from the mid point of the dorsal vertical either side of the lateral line, finishing at the caudal peduncle. These granulations are so fine it is possible for them to be unnoticeable not only to the naked eye, but even when viewed with a small magnifying lens if the fish are in excellent condition. However with good lighting they are more evident when viewed from above.

#### COLOUR & MARKINGS IN LIFE.

The body colour varies depending upon the light conditions at the time of viewing, under certain light the colour can be either mottled brown to tan with darker banding or mottled dark grey to silver grey with darker banding. Generally the area around the head appears as dark grey with light mottling, with the body being a silvery grey. There are four distinct dark grey bands running through the body. One running through at the basal bone vertical, one running through at the posterior vertical of the dorsal fin, one running just in front of the adipose fin and another just after the adipose fin. The degree of mottling around the head area varies from specimen to specimen. The dorsal fin is mainly dark grey in colour with the posterior edge seeming to have a clear crenellation style edge to it. The adipose fin a very light grey in colour and in some specimens appears to be opaque. The caudal fin is generally clear and has a brown/grey marking in the shape of a crescent starting from the caudal peduncle and covering 50% of the fin. The caudal fin being not quite triangular, and having slightly rounded lobes to them and having a brown/grey band along the posterior

edge. The crescent and lobal patterns keep to the same format, although there are slight variations from specimen to specimen. The anal fin is clear/opaque for three quarters of its surface with a band of brown/grey running it close to the body. The ventral fins are similarly coloured, but these have another band of brown/grey a third of the distance in from the fin edge. The pectoral fins are generally light brown/grey and having a white tip to each. There is a clear band arcing from just under halfway on the outer edge and ending where the trailing edge meets the body.

#### SIZE

The largest specimen measured was 45mm SL; which happened to be a female, the largest male measured was 40mm SL.

#### BARBELS

Four pairs, all being annulated. The nasal barbels are between 1mm and 1.5mm in length. The maxillary barbels reach nearly as far back as the pectoral fins; the outer mandibular barbels nearly reach midway between the pectoral fin and the snout with the inner ones being slightly shorter.

#### DORSAL FIN

There are six rays to this fin with the first ray being a strong spine having a smooth anterior edge with five to six serrae on its posterior edge, the remaining five rays are branched.

#### ADIPOSE FIN

There is only one ray to this fin and that being at the front, with soft tissue posteriorly.

#### CAUDAL FIN

Being triangular in shape, with slight curves to each lobe. In total there are sixteen rays.

#### ANAL FIN

This fin is positioned directly below the adipose fin, and extends to midway between the end of the adipose fin and the caudal peduncle, and has six to seven rays.

#### VENTRAL FINS

These fins are positioned just behind the end of the pectoral girdle and have six branched rays that give the appearance that they protrude through the soft tissues of the fin.



PECTORAL FINS

These fins are positioned 2 mm, behind the vertical through the eye and finishing just in front of the dorsal vertical. There are six rays with the first ray being a strong spine, which has between six and eight divergent serrae on its anterior edge, and between seven and nine strong serrae on its posterior edge. The anterior serrae are divergent, signifying, species 'Erethistes type'. The remaining five rays being branched.

OCCIPITAL PROCESS

This process can be seen under good lighting conditions, but is more evident on dead specimens. There are three narrow processes that extends posteriorly from the main process, one being on the ventral edge and the other two running between 1.5mm and 2mm parallel either side of this extension. There is a gap clearly visible between the end of the middle process and the basal bone. Barely visible half way between the dorsal fin and the posterior of the humeral-cubital process of the caracoid are two bony nodules, these are fused together beneath the skin and in turn fused to the skeleton between the skull and the spinal column. These nodules are more evident in dead specimens.

THE HUMERAL-CUBITAL PROCESS OF THE CARACOID

This process (the pectoral girdle) is prominent and is fused to the skeleton on either side of the body at the intersection between the pectoral spine and the skull. The process extends posteriorly down each side and ends just in front on the ventral fins, extending anteriorly from this intersection point at a 35-degree angle until they meet midway between the mouth and the pectoral fins.

NOTES

The pectoral spines serrae seem to increase in count according to the size of the specimen. When in motion the body appears to elongate. On one specimen the serrae count was 10 on the anterior edge and 10 on the posterior edge. (This specimen was collected from a pet store after it had died; on inspection the same occipital process design was apparent).

DESCRIPTION OF TYPE awt/5BODY

Head is broad and angular, rising to the basal bone this being the high point of the body. The body then tapers to a point just behind the adipose fin and then runs parallel to the caudal peduncle. There are fine granulations running parallel along the body either side of the lateral line from the mid point of the dorsal vertical and finishing at the caudal peduncle. The first rows are prominent and visible to the naked eye, if the fish is in excellent condition, however; the remaining rows of granulations are hard to distinguish with the naked eye, and are more evident when viewed from above.

COLOUR & MARKINGS in life

The head is a mottled dark grey colour that extends as far as the basal bone. From the basal bone there is a 5mm band of dark grey followed by a 5mm band of the head colouration, with another band of the darker grey continuing from this point to the posterior edge of the dorsal fin, this in turn is followed by a chevron type band of white, reaching as far back as the beginning of the adipose fin, which is in turn followed by a chevron type band of the mottled grey colouration and being as wide as the adipose fin. A narrow band of the darker grey follows this, with a white band that extends to the caudal peduncle. From this point there is a band of the darker grey colour that forms a crescent like shape within the first half of the caudal fin, and a dark grey band being just inside the contour of the caudal lobes that it follows; the rest of the caudal fin is void of pigmentation. The anal fin has a clear edge to it, followed by a band of dark grey, which in turn is followed by a band of white pigment, with another band of the dark grey that continues through the rest of the fin until where the fin joins the body. The ventral fin has a thin clear posterior edge to it, the rest of the fin colouration being grey, however; there is a broken band of white two thirds of the way into the fin from the posterior edge. The pectoral fins has an annulated anterior edge with a clear posterior edge, the rest of the fins are grey that contain a clear arc, which runs from where the posterior edge meets the body, to a point one the third distance along the anterior edge. The tips of each fin are opaque in colouration.

SIZE

The females are more rotund than the males and are of greater size. The largest specimen measured was 70mm SL..

BARBELS

Four pairs, all being annulated.

The nasal barbels are between 1.5mm and 2mm in length. The maxillary barbels reach as far back as the pectoral fins. The outer mandibular barbels are about equal to 75% of the length of the maxillary barbels, with the inner ones slightly shorter.

DORSAL FIN

There are seven rays to this fin with the first ray being a strong spine having a smooth anterior edge with seven to eight serrae on its posterior edge.

ADIPOSE FIN

There is only one ray to this fin and that being at the front, with soft tissue posteriorly.

CAUDAL FIN

The posterior edge is straight and contains sixteen rays. When the fish is swimming this fin is extended, forming a delta type shape.

ANAL FIN

This fin is positioned below the adipose fin, with the posterior edge extending level to the posterior edge of the adipose fin and contains seven branched rays.

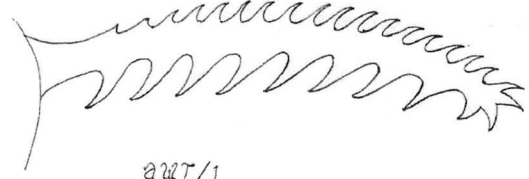
VENTRAL FINS

These fins are positioned just behind the first ray of the dorsal fin, and extend to level with the posterior edge of the dorsal fin, and contains six branched rays, these rays give the appearance of protruding through the soft tissues of the fin.

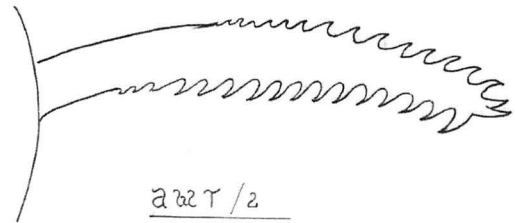
PECTORAL FINS

These fins are positioned the same distance away from the eye; as the eye is to the tip of the snout. There are seven rays with the first ray being a strong spine, and having between twenty to twenty two serrae pointing outwardly on their anterior edge and ten to twelve strong serrae pointing inwardly on the posterior edge,

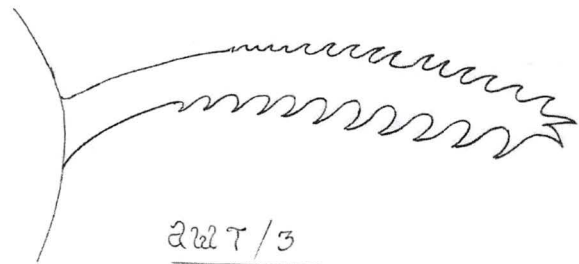
Pectoral Spine Serrae of Erethestini.



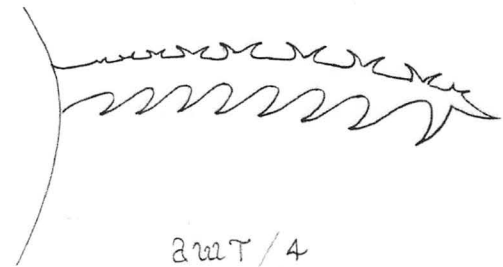
awt/1



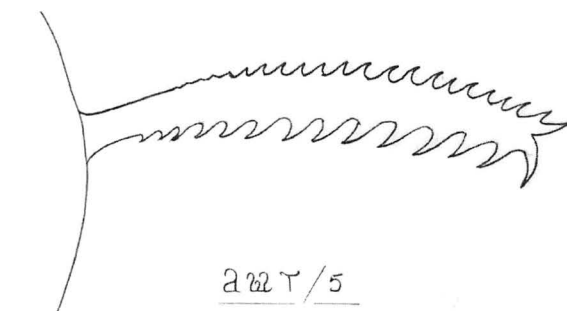
awt/2



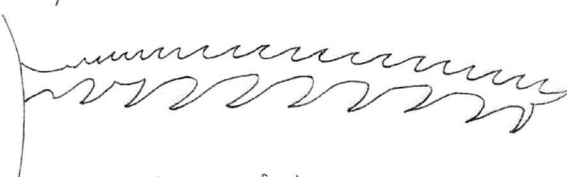
awt/3



awt/4



awt/5



Hara jerdoni

Note The number of serrae on both anterior and posterior edges of awt/1 and awt/3 and the same can also be said of awt/2 and awt/5. Also the serrae on the tip of the anterior edge points upwards in awt/2, awt/5 and *H jerdoni*, while pointing downward on awt/1 and awt/3, yet the spacing of these serrae is different in each case.

the remaining six rays being branched. As the anterior serrae all point outwards this signifies 'Hara type'.

### OCCIPITAL PROCESS

These processes are hard to distinguish on health specimens, and are more apparent on dead specimens. There are three narrow processes that extend posteriorly from the main process, one being on the ventral edge and the other 2 to 3 mm either side of this extension, and curving down somewhat. The main centre process does not quite reach the basal bone; they're being a 1.5mm space between the central process and the basal bone although this cannot be readily seen. Just visible half way between the dorsal fin and the posterior of the humeral-cubital process of the caracoid are two bony nodules, these are fused together beneath the skin and in turn fused to the skeleton between the skull and the spinal column.

### THE HUMERAL-CUBITAL PROCESS OF THE CARACOID

This process (the pectoral girdle) is prominent and is fused to the skeleton on either side of the body at the intersection between the pectoral spine and the skull. This process extends posteriorly down each side and ends just in front on the ventral fins. Extending anteriorly from the intersection point, at a 45-degree angle until they meet 6mm behind the mouth.

### NOTES

When in motion the body appears to elongate. These are probably the largest of these fishes.

---

### OCCIPITAL PROCESS

### CONCLUSIONS

#### General

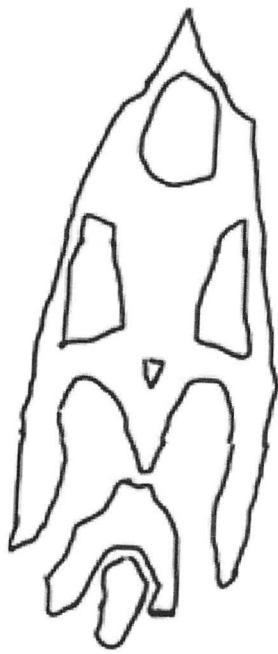
Some descriptions of a few of these fishes say that they are of body 'elongated'. My observations of these especially awt/3, awt/4 and awt/5 is that the body is rather squat at rest, yet seems to elongate when in motion. In some descriptions it is said that the anal fin reaches as far back as the caudal fin, this can be said of all the types I have described, however when the fish is in motion the anal fin in extension has a vertical posterior edge to it and does not reach as far as the anal fin. All specimens showed an inter-space between the occipital process and the basal bone.

In two descriptions Tilak: Re-description of *Hara hara*, (Bull; Zool, survey; India vol 1 No 3 1978), and *Hara serratus* (Vishwanath & Kosygin 2000). They describe the dorsal fin spines as having serrae on their anterior edge. These works are the only ones that I found that describe serrae as being on the anterior edge of the dorsal spine. All other works, do not describe this serration on the anterior edge of the dorsal spine. I also draw attention to the fact that on all specimens examined by myself, there was no serrae present on the anterior edge of the dorsal spine. However, when the soft tissue was allowed to dry on type awt/3, to the touch the anterior edge of the dorsal spine felt as if it had small denticles or ridges to it, yet when the dorsal spine had been stripped of all soft tissue the anterior edge was in fact smooth.

In The freshwater fishes of India, Zool, survey, India Calcutta 1981; K C Jayaram. The line drawing of the pectoral spine serrae of *Erethistes pussilis* is, I feel, misleading as it shows four single serrae on the outer of the anterior edge where as all specimens I examined never showed this type of serration, indeed that description states "Serrations along outer margin of pectoral spine divergent or a combination of retrose and antrose teeth". Therefore this line drawing should not be used as a reference as I feel that it may be inaccurate.

#### awt /1

When comparing awt/1, not only to the descriptions available but also against measurements I had taken from living specimens, together with measurements from deceased specimens, the following was noted. The size range and measurements were very similar to the ones described for *Hara maesotensis* (Kottelat1983) the number of posterior pectoral spine serrae were similar in number, yet although the number on the anterior edge were within range, the original description (*Erethistes maesotensis*), describes the anterior edge of having "small denticles" not serrae. During correspondence over this matter with the scientist Heok Hee Ng, he confirmed that the denticles were in fact serrae, and that this fish was also in his opinion *Hara maesotensis*. I therefore conclude that these cannot be *Hara hara* (S Grant CSG (UK) Cat Chat June 2003) and are in fact *Hara maesotensis*. (fig 1).



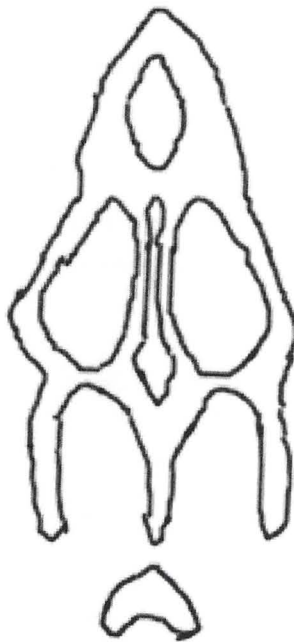
*Hara jerdoni*



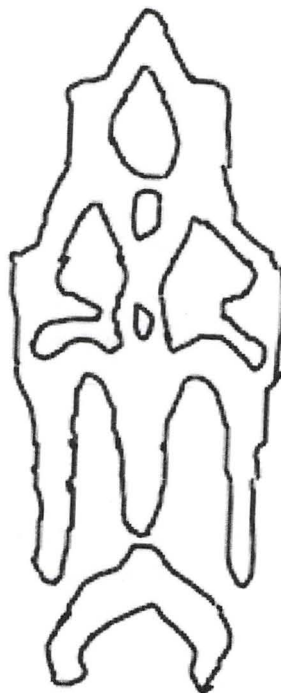
*awt / 1*



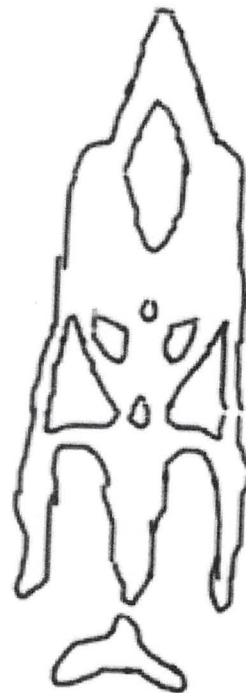
*awt / 2*



*awt / 3*



*awt / 4*



*awt / 5*

awt/2

As I have been unable to connect this fish to any of the grouped descriptions or indeed any full descriptions in my possession other than *Hara filamentosa* (Blyth) which I only have two reference's of, one saying that is it is a synonym of *Hara hara* (Talwar and Jhingram 1991) and "upper lobe of caudal fin with long filamentous prolongation", (The freshwater fishes of India

Zool, survey, India Calcutta 1981K C Jayaram). However type awt/2, like *Hara filamentosa* comes from Myanmar and has quite a long filamentous extension to the top ray of the caudal fin, although in some quarters it is felt that type awt/2 are found a considerable distance to where the original specimen of *Hara filamentosa* was collected and therefore cannot be *Hara filamentosa*. As collectors to the fish trade in certain parts of Asia are sometimes awry with the locations of where they are collecting. Until further field research is done on this fish, it cannot be ruled out as being the true *Hara filamentosa*. So therefore this fish I feel should be named *Hara cf filamentosa*. (fig ii).

awt/3

When comparing awt/3 not only to the descriptions available, but also against measurements I had taken from living specimens, together with measurements from deceased specimens. The following was noted, the serrae on both anterior and posterior edges of the pectoral spine lies within the range for *Hara hara* (Hamilton). The granulations along the body correspond as described. The colour corresponds with description given. However, I had two types originally that were very similar except for size, the smaller one appeared to be an ashen darker colouration (similar to specimen awt/5). I had purchased these fish from a retailer and all died within the first week. The serrae counts on these fish were less but they were in proportion to the larger type, and the occipital processes were very similar, almost identical to the larger type, and therefore I believe that these are the same fish as the larger specimens. In one description it is said that the caudal fin is deeply forked and lower lobe being longer than the upper lobe, on the smaller specimens at rest the caudal fin gave the impression of having a longer lower lobe to it and of being slightly forked, yet on both sizes when the fish were in motion the caudal fin had a delta type shape to it, with both lobes being equal. I conclude that these fishes are the true *Hara hara*. (fig iii).

Further comment; in 'Shane's World' Planet Catfish (web site) Shane Linder wrote that when he looked at the pectoral spine serrae on a dead specimen he had, they matched the lines drawings of the divergent serrae on *Erethistes pussilis*, yet; a photographic image that was posted along with the article showed a fish resembling specimen awt/5. On the smaller specimens the anterior edge serrae seem to be grouped in pairs, and on one specimen that I had allowed to dry out the serrae seem to twist and at first glance gave the impression that they diverged. Due to that the smaller specimens were similar in colour to specimen awt/5, this I feel accounts for the 'misunderstanding' in Shane's World. Also this may account for the misleading line drawing and description as mentioned in 'general conclusions'.

awt/4

When comparing awt/4, not only to the descriptions available but also against measurements I had taken from living specimens, together with measurements from deceased specimens. The following was noted, the serrae on both anterior and posterior edges of the pectoral spine corresponded to the descriptions of *Erethistes pussilis* (Muller & Troschel). The size also corresponded as to *E pussilis* as did fin ray count. I had two similar type specimens in my collection both types were of differing size, yet upon examination the only difference between the two types was the pectoral spine serrae count, the smaller type having less serrations on both anterior and posterior edges, yet they were in proportion to the larger type, and therefore I believe that these are the same fish as the larger specimens. I conclude that these fish are *Erethistes pussilis*. (fig iv).

awt/5

When comparing awt/5 not only to the descriptions available but also against measurements I had taken from living specimens, together with measurements from deceased specimens. The following was noted, the serrae count on both anterior and posterior edges of the pectoral spine and on the dorsal spine corresponded to those described for *Hara horai* (Misra). Along with other similarities I believe that this fish is *Hara horai*. (fig v).

Hara maesotensis (Kottelat 1983)

(awt/1.)

Type locality: - Mae Nam Moei, a tributary of the Salween river near Mae Sot on the Thai-Myanmar border.

Size: - M 35mm F 40mm SL.

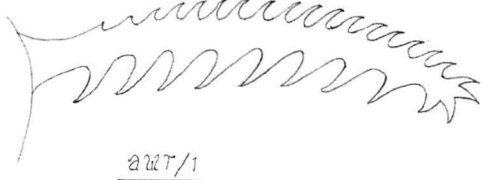


fig i. Pectoral fin spine, serrae

Hara cf filamentosa (Blyth 1861)

(awt/2).

Type locality: - Tenasserim region, Myanmar.

Size: - M 75mm F 75mm SL

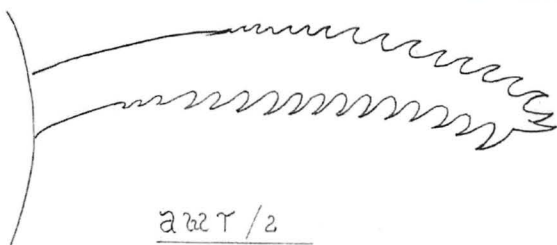


fig ii. Pectoral fin spine, serrae.

Hara hara (Hamilton 1822)

(awt/3)

Type locality: - River Kosi, India.

Size: - M 55mm F 75mm SL

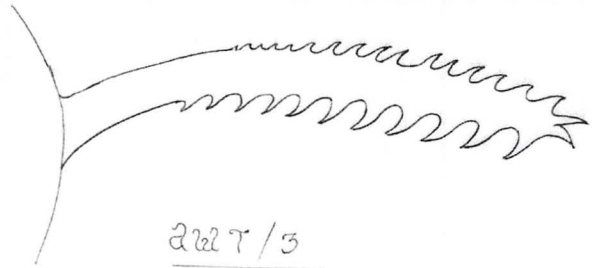


fig iii. Pectoral fin spine, serrae

Erethistes pussilis (Muller & Troschel 1845)

(awt/4)

Type locality: - Assam region, India.

Size: - M 45mm F 50mm SL

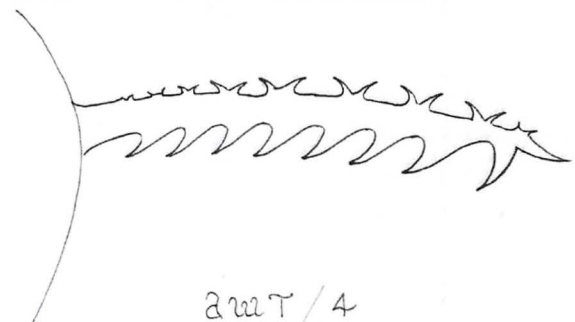


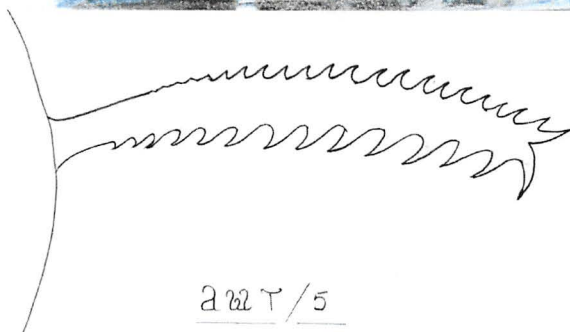
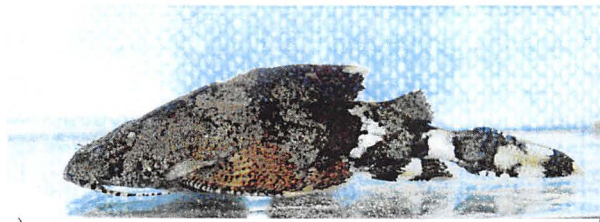
fig iv. Pectoral fin spine, serrae.

Hara horai (Misra 1976)

(awt/5)

Type locality: - Terai & Duars region. India.

Size: - M75mm F 80mm SL

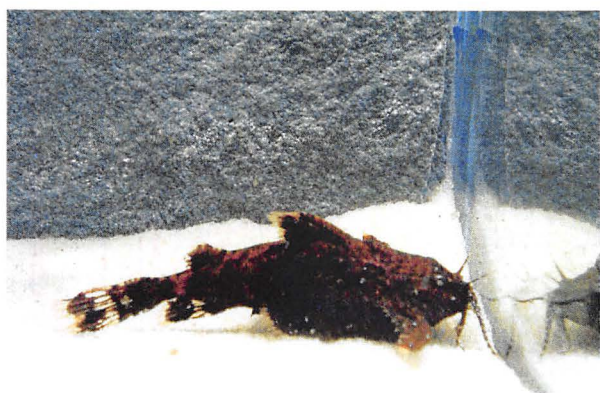


222 T/5  
fig v. Pectoral fin spine, serrae.

Hara jerdoni (Day 1870)

Type locality: - Sylhet district, Bangladesh

Size: - M 30mm F 30mm SL



Hara jerdoni  
Pectoral fin spine, serrae.

For future consideration

I am under no doubt that there are more Erethistini than shown here, waiting to be collected. I have seen over the last five or six years other fish that show similarities to these fishes. One appeared similar in shape to *Hara horai* only it was quite a large specimen exceeding 120mm SL and was a grey ashen colour all over. There is also a type that is shown in Baensch aquarium atlas (photo index 1-5) that is labelled as *Hara hara*, this fish was around the hobby (UK) in around 2000, and as yet I have only seen one other specimen; This being similar to the one labelled as *Hara sp 1*(S Grant CSG (UK) Cat Chat June 2003), maybe when this fish is examined in more detail it can be identified correctly. It may well prove to be either *Hara sahasai* (Srivastra & Munshi 1988) or *Hara serratus* (Vishwanath & Kosygin 2000).

In two descriptions Tilak: Re-description of *Hara hara*, (Bull; Zool, survey; India vol 1 No 3 1978), and *Hara serratus* (Vishwanath & Kosygin 2000). They describe the dorsal fin spines as having serrae on their anterior edge. It may well be that the two descriptions are of the same type fish. Yet this serration does not occur on any of the specimens I have examined including *Hara jerdoni*, and *Erethistes pussilis*, would the presence of serrae on the anterior edge of the dorsal spine, mean that the fish should be assigned to its own genus or moved to another family entirely?

References:-

Newsletter, Zool, survey India 2 (6) 1976 by Raj Tilak & P.K. Talwar.

Bull.zool.surv.india, 1 (3) : 295-301, 1978 Redescription of *Hara hara*(Hamilton) & *Hara horai* (Misra) by Raj Tilak.

The freshwater fishes of India. Zool,surv, India Calcutta 1981 K C Jayaram.

Inland fishes of India vol 1 – 2 Talwar & Jhingran 1991.

Natural History of fishes & Systematics of India By Datta Munshi & Srivastava.

*Erethistes maesotensis* Kottelat 1983

The identity of Mothcats of the genera *Hara* Blyth,1860 and *Erethistes* Müller & Troschel,1849 By Steven Grant CSG (UK) Cat Chat June 2003.

Baensch Aquarium Atlas, Photo index 1-5.

Acknowledgments:-

Heok Hee Ng, Planet Catfish. Julian Dignall, Planet Catfish. Patrick Campbell, British Nat Hist Museum. Dr Maurice Kottelat, Cornol, Switzerland. I.A.M. Fuller, Catfish Study Group. For all assistance, advice and encouragement that they kindly gave.

**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

Sunday: - 10 am -4-30pm



# 'What's New' September 2006

by Mark Walters

This article presents abstracts for five scientific papers and references to another four papers for which further details are available.

## Catfish sightings:

Following on from the list of not-usual or new species available in the hobby, the following have been sighted:

Corydoras griseus, C. erhardti, C. melanotaenia, C. ellisae: L-Numbers - L200, LDA19

## Selected scientific papers:

**Ng, HH, (2005).** *Amblyceps carinatum*, a new species of hillstream catfish from middle Irrawaddy River drainage in Myanmar. The valid species of *Amblyceps* are listed. *Amblyceps mucronatum* is also recorded from the Irrawaddy River drainage for the first time.

**Shibatta, O and C. Pavanelli. (2005)** - Description of a new *Batrochoglanis* species, *B. melanurus*, is the fourth member of the genus. *B. raninus* (formerly *Pseudopimelodus raninus*), sometimes enters the aquarium trade.

**Retzer ME (2006)** - A new species of *Farlowella*, *F. alticorpus*, was discovered in the Rio Coroico, a tributary of the Rio Beni in Bolivia. The species is believed to be a member of the *Farlowella nattereri* group, which also contains *F. isbruckeri*, *F. hasemani*, *F. jauruensis*, *F. odontotumulus* and *F. nattereri*. The fish is wider and deeper than other *Farlowella* and has a shorter snout. It gets its name *alticorpus* from the Latin *alto* - meaning deep - and *corpus* - meaning body.

**Gauger, M and P, Buckup (2005)** - Two new species of *Hypoptopomatinae* from the rio Paraiba do Sul basin, *Parotocinclus bidentatus* and *P. muriaensis*. The lack of adipose fin sets the two species apart from most other members of the *Parotocinclus* genus, with the exception of *P. spilurus* in which some specimens occasionally lack the fin.

**Friel and Vigliotta (2006)** - A new *Synodontis* species, *S. acanthoperca*, has been discovered in fast-flowing rapids at two separate sites in the Ogooue River system in Gabon. *S. acanthoperca* is likely to be widely distributed through the upper Ogooue, wherever similar rapid water habitats occur. The species is one of the smallest known members of the *Synodontis* genus, with most specimens measuring around 4cm and the largest known specimen measuring 5cm/2".

Papers describing new species in the following Genus have been also been published:

**Microglanis** - (Shibatta, O. A., and R. C. Benine. 2005)

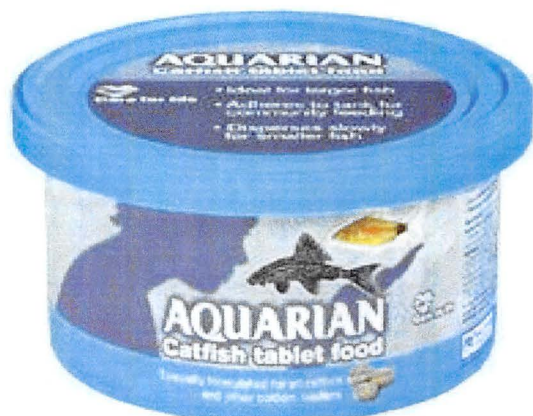
**Physopyxis** - (Sousa L. M. de, and L. H. Rapp Py-Daniel. 2005)

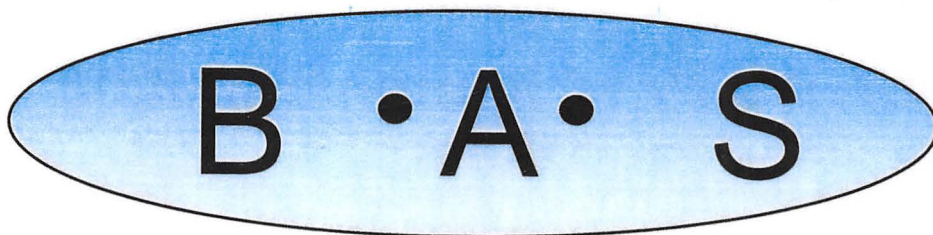
**Pseudotocinclus** - (Takako, A. K., C. Oliveira, and O. T. Oyakawa. 2005)

**Sisor** - (Vishwanath, W., and A. Darshan. 2005)

If you have any sightings you would like to share or would like to track down a paper, contact me for the full reference: [mark.walters@ic24.net](mailto:mark.walters@ic24.net).

*Acknowledgement is made to Planet Catfish, Practical Fishkeeping and the All Catfish Species Inventory (ACSI) database for the original source of information on papers*





*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

www.bas.co.uk



# OUT OF AFRICA (ANGOLA Part 1)

BY Bill Hurst  
(all images Bill Hurst)



I first went to Angola in 1984, the same year that I left the army, and eventually returned to England for good in 1996.



Me in 1984 posing with the very first syno that I caught.

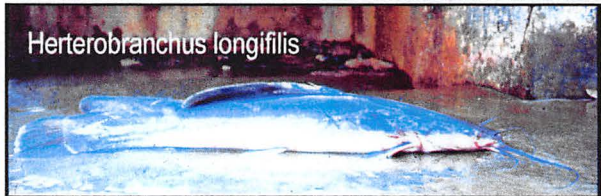
I did go a little bit prepared, I took some silicone sealant with me and a glass cutter. Eventually I managed to nick some glass from a door and make a small aquarium. I also had to learn how to develop slides because under the communist regime we weren't allowed to take undeveloped film out of the country. This should explain the awful colour cast on some of the pictures when I couldn't get a proper blackout in my darkroom (the bathroom).

The first place I fished was the Rio Chiumbe where I caught my first Synodontis. I'm still not sure what type it is. I caught it on rod and line and the bait was an ordinary worm, just like the ones in England.

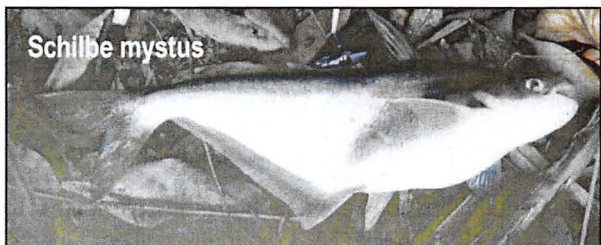
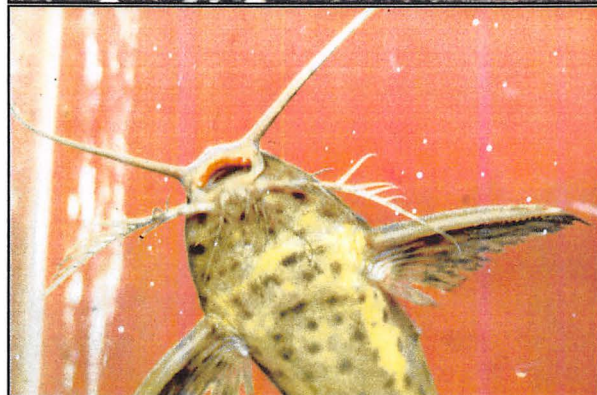
I did fish the Chiumbe when I could and managed to catch a variety of cichlids, characins and the odd catfish including my one and only Chrysiichthys and some Hetrobranchus.

During my time in Angola, I moved around a bit and when it was possible I spent my spare time fishing. Sometimes it was in manmade river diversions and holes and sometimes it was in the main rivers themselves.

My first time there was to a place called Andrada which is an old Portuguese diamond mining town in the north-east of the country. The nearby rivers were The Rio's Luembe, Luachimo and the Rio Chiumbe.



Most of the photos I took were of the fish out of water because I didn't take the aquarium with me and the sun dried the fish out so they died rather quickly. The fish were only good for the houseboys to eat.



The fish that I regularly caught on the Luachimo was the Schilbe mystus. They were every where I went so I



**Auchenoglanis**



didn't catch much of anything else. Except for an *Auchenoglanis* at a place called Chitotolo. It was similar situation on the Luembe although I did catch other kinds of fish, mostly Cichlids (ugh!) but they are tasty.

In 1986, I moved to a place called Cafunfo and the nearby river was called the Rio Cuango.

The only *Synodontis* I regularly caught there was one that I hadn't seen anywhere before and only very recently this year, Trevor Morris, the CSG President, brought a book by Poll to a group meeting and I recognised the *Synodontis* as *Cuangoanus*.

I have looked on the Internet and can only find line drawings. I didn't realise that no one had seen a photograph of it. If I had known that then, I would have tried to photograph it better. I have had these slides for about twenty years and didn't realise that they are quite a rarity. However, on top of my poor darkroom technique, they have deteriorated a bit.

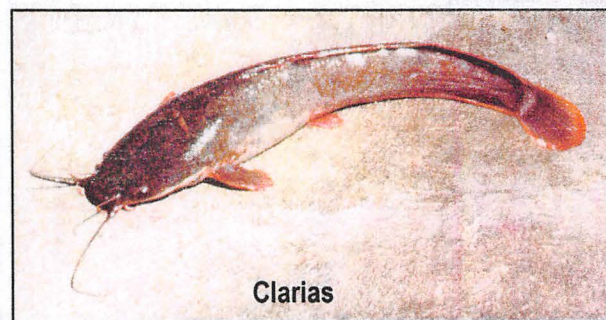


Without going into too much politics, Angola was not a safe place to wander around so I was armed and took guards with me who also took great delight in eating anything I caught.. They also thought I was mad when I tried to take the fish back to camp to photograph.

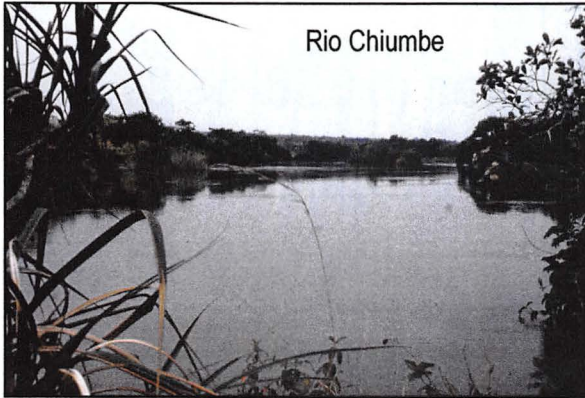
One thing of note is that when I read the TFH stuff on African catfishes to try and identify the ones I caught, nearly all are described as being from the Zaire basin or elsewhere. The rivers in the north of Angola all run northwards into Zaire so some must travel around. The Natural History Museum in Luanda must have something of note but probably no photographs, only preserved fishes.



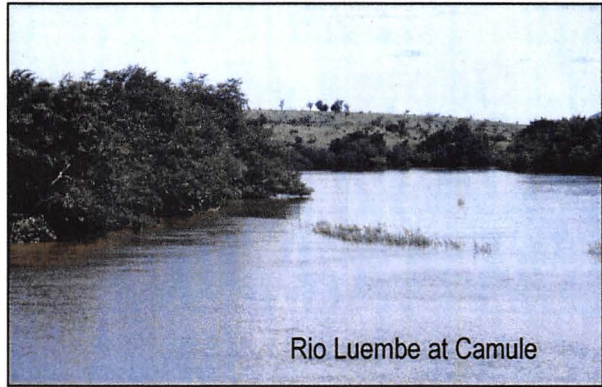
One fish that was caught on almost every trip we went on was the *Clarias* which is widespread all over Africa.



The main difference, visually between the *Clarias* and the *Heterobranchus longifilis* is that *Heterobranchus* has, what appear to be two dorsal fins although I think the rear fin is a large adipose.



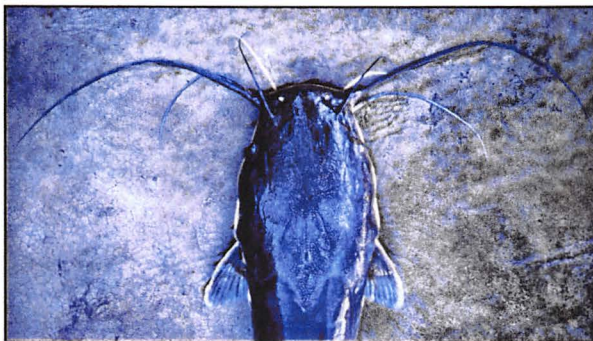
Rio Chiumbe



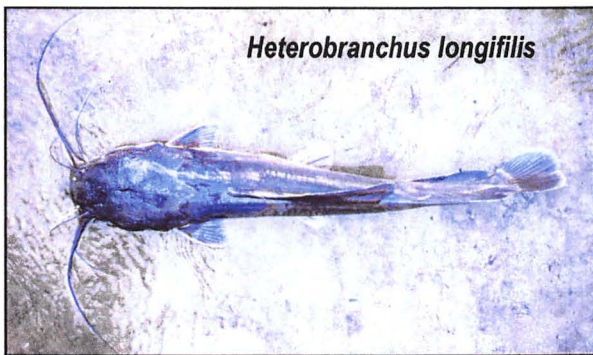
Rio Luembe at Camule



The Clarias has one long dorsal fin from just behind its head plate (it doesn't have a bony skull as we know it) to its tail.

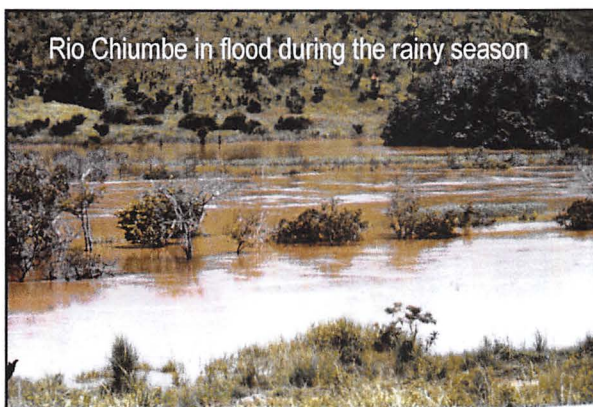


Although the fish look quite big, both of these fishes do not have a lot of meat on them. Most of the body is made of its head and gut and the meat is just on the flanks. However, the locals were quite poor and would eat everything.



*Heterobranchus longifilis*

Although I have named places in Angola, some names have changed. For example Andrada was overrun by UNITA and the town is now called N'Zagi (pronounced N'zarge) after the local small river (more of a stream) that runs through it. Dundo is a new name since the 1975 revolution. I'm not sure if it still exists as I knew it.



Rio Chiumbe in flood during the rainy season

Cafunfo isn't on the maps but has two airports. One small one that the airforce used for helicopters, small counter-surveillance planes and small civil passenger planes. The other roughshod long runway is used for the commercial flights which used to supply us with food and fuel for the large earth moving vehicles.



## George Albert Boulenger (1858-1937)

An insight by A.W. Taylor

George Albert Boulenger was born on the 19<sup>th</sup> October 1858 in Brussels, Belgium, and was the only son of Gustave Boulenger, and Juliette Piérart de Valenciennes.



Boulenger graduated in 1876 from the free University in Brussels with a degree in natural sciences, going on to gain employment as an assistant naturalist, at the Museum of Natural History in Brussels, studying fishes, amphibians and reptiles. During his time there Boulenger made frequent visits to both the British Natural History museum in London and the Museum National d'Histoire in Paris.

In 1880 he was invited to work in London, at the Natural History Museum by Dr Albert C. L. Gunther and was assigned the task of cataloguing the amphibians in the museum's collection, Because this position had to be taken by a 'civil servant of the British Empire', Boulenger became a naturalised British subject in order that he could accept the position that had been offered him. In 1882 Boulenger became a first class assistant in the Department of Zoology, a

position that he remained in until his retirement in 1920.

Boulenger had an extraordinary memory, which enabled him to remember in detail, every specimen he had examined and studied, Boulenger was also very systematic in his studies, and very rarely had to make a second draft of anything he wrote, before it was sent for publication. In fact Boulenger was multi-linguistic, apart from having a working Knowledge of both Greek and Latin, he could read Spanish, Italian and Russian and could speak and write in English, French and German. Boulenger was very popular not only with other scientists and the public, but especially children for his kind and loving nature, always finding time to talk to children about wild life, and the chimpanzee that shared his family home with his wife and three sons.

In total Boulenger published over 880 papers, describing 1 096 species of fish 556 species of amphibians and 872 species of reptilia. Amongst Boulenger's main discoveries, was the first ever description of a blind cavefish from the African continent, the African blind barb. Boulenger named this fish *Caecobarbus geertsii*, caeco meaning blind, barbus meaning barb and geertsii honouring a M. Geerts who had provided the specimen.

In 1935 Boulenger was elected as the First honorary member of the American Society of Ichthyologists and Herpetologists, and in 1937 he was awarded with "The order of Leopold" Belgium's highest honour that can be awarded to a civilian.

George Albert Boulenger died on the 23<sup>rd</sup> of November 1937 in Saint Malo, France. Aged 79.



### TetraTabimin<sup>®</sup>

Complete sinking food for  
catfish and bottom feeders

# **CATFISH STUDY GROUP (UK)**

**Sunday 19 November 2006**

## **Autumn Auction**

Starts at 1300 hrs

at

**Highfields Working Men's Club  
Ratcliffe Street  
Darwen  
Lanc's**

Booking in from 1030 hrs on the day  
Pre-book by telephone on 01942 248130

### **Canteen**

Tea, coffee, cold drinks, hot food sandwiches, cakes.

#### **Rules:**

Items for the fishkeeping hobby only.

All Electrical Goods must have a Name and Telephone number on them, together with the condition of the item i.e. Spares, Working Order, Faulty etc..

All plants and fish to be auctioned should be in clear plastic bags, or jars large enough for them. Large fish may be offered in plastic containers/buckets. Fish should be identified (Common or Latin names). 'Painted' fish will not be auctioned.

There is a 15% commission to the Catfish Study Group on all sales. Payments to vendors will be made at the interval or at the end of the Auction.

**The CSG is in no position to accept responsibility for the condition of any item sold at the auction or to exchange any item purchased.** If in doubt, bid for an item 'as seen'. The vendor's name will be available to the purchaser, in the event of a problem, on the day only.

# CATFISH STUDY GROUP

New meeting place starting 20<sup>th</sup> November 2005

