IN THIS ISSUE

Hemiancistrus medians
By
Isaac Isbrücker

Observations of Three Genus of Corydoras
By
Jim Makin

Catfish Safari - Virginia
By
Shane Linder

Spawning and Raising Synodontis petricola
By
Graham Burnside

Volume Number 1 Issue Number 3
September 2000

MEMBERSHIP LIST - THE FIRST 100
Dear Members

Once again, thanks to our contributors for their great articles.

To date there have been no replies to our 'Meet the Members' letter which a few of you have received. More letters will be sent with this issue.

Articles and pictures can be sent by e-mail direct to <bill@catfish.co.uk> or by post to

Bill Hurst
18 Three Pools
Crossens
SOUTHPORT
PR9 8RA (England)

Please don't write in about the two errors on page 11. The reference, bottom left, is from page 14. The other is a spelling mistake. Blame the fuel crisis!

The next issue will contain one large article (I did not like to split it between two issues) and the Open Show report and results. I can tell you that attendance figures were down which was a direct result of the fuel shortage.

Chapter 4, who printed the first two Cat Chat covers has closed down. We are currently looking for a new design and sponsorship for next year. Any offers out there?

Ed

ACKNOWLEDGEMENTS

Many thanks to the following (in no particular order) for their generous donations to support the Open Show: Prestwood Petzone, Barlows Aquatic Trading, British Aquatic Superstore, Mrs Page, Pier Aquatics, Mermaid Fish Imports and a special thanks to our Catering Department for their hard work.

Front Cover: Designed by Kathy Jinkins. Printed by Chapter 4, Southport.
The Committee of the CSG (UK) would like to thank the following advertisers for their support in the production of this journal:

**BARLOW'S AQUATIC TRADING**
ACCRINGTON

**PIER AQUATICS**
WIGAN

**GBW JOINERY**
DARWEN

**BRITAIN'S AQUATIC SUPERSTORE LTD**
BOLTON

**MERMAID FISH IMPORTS**
BROMSGROVE

**PRESTWOOD PETZONE**
STOURBRIDGE
Hello everyone! The past three months seem to have flown by. I find there are just not enough hours in the day to complete all the tasks I need to do and there’s a lot of midnight oil being burned to keep up. The attendance at the Group’s last three meetings was a little lower than expected. The members who did attend all played an active part which made them very interesting and enjoyable.

June: Bagridae. Trevor Morris brought along a specimen of Pseudomystus stenomus, if my memory serves me correctly, and I took my Mystus leucophasis (The upside down Asian catfish). We discussed the conditions we kept them in as well as the various types of food they ate. This led on to the diversities to be found within the group of Bagrid catfishes from the smallest to some of the species that are far too big for the average tank. After the discussion on the live specimens and a short break it was the turn of Julian Dignal, one of our two Web Officers, who talked about the vast amount of catfish information that is available on the internet. He also showed us the page that he and Allan James, our other web officer, have put on their respective sites, Planet Catfish and Scotcat, to advertise and promote the activities of the Group. I think this is where I am losing all track of time when I’m searching around all the catfish sites.

July: Pimelodidae. Our President Trevor Morris did us proud and brought along some specimens of Brachyrhamdia meesi and an Imparfinis species for us to see and talk about. Once again everyone enjoyed the discussions that followed Trevor’s words of wisdom. This was then followed by a very interesting slide show, given by Danny Blundell, that showed us the diversity and colour pattern varieties that can be found within the Pimelodidae family. There was much discussion held about these fishes during and after all the slides were seen. All in all a very interesting meeting.

August: Mochokidae, and Trevor as usual brought along a couple of specimens for us to see. They were Mochkiella paynei and a specimen of a Schilbe marmoratus. The big disappointment of the day was the lack of members present. Perhaps holidays had a big part to play. However, it gave the committee plenty of time to finalise the arrangements for the forthcoming Open Show in September which, by the time you read this issue, will be over. Hopefully it will have been well represented with lots of entries on the Show Bench and plenty of interesting lots in the Auction. A full report on the show will be given in the next issue.

Ian Fuller

BOOK REVIEW

Bristlenoses - Catfish with Character

By Kathy Jinkins

The book for the hobbyist. This new publication by TFH contains just about all you need to know about keeping Bristlenose Catfish. If you have never had one, there is an explanation on what to look for when you buy one and how to look after it when you take it home.

As popular as these fish are this, surprisingly, is the first book dedicated to them. Kathy has taken care not to use too many scientific expressions and explains them where necessary. There are plenty of pictures, drawings, charts and maps for those who like them which assist with descriptions, temperature ranges, climate and locations. There is also an interesting chapter on the blind Bristlenoses.

Well worth £9.95.

Bill Hurst

Note: If anyone in the UK has problems buying one, contact me and I can get one sent to you, post free. My telephone number is 01704 213690 (Preferably evenings or weekends)
I was born in Augsburg in 1957. At a relatively early age I developed a keen interest in native fishes, with the element of mystery as a particular attraction; fishes elude normal observation methods by virtue of their quite different environment. Armed with net, rubber boots, and a bucket I wandered along drainage ditches and the local canal, drained for a short while for cleaning. In the case of the latter, every year I rescued many fishes from death by suffocation in the residual puddles; the larger specimens were transferred to the nearby river, but small ones were often taken home for study, mainly in the wash tub. This led to many a scolding from my mother come washday, when she wanted to use it herself! My most ardent wish, for an aquarium, was not granted until I was 13. Naturally the glass container offered a quite different view of my subjects - the fish could now be watched from the side, not just from above. I was also fascinated by the 3-dimensional effect that could be created by the clever use of decor. It was not long before a second aquarium followed, then a third. Before long every available inch of space in the house was occupied by a small piece of underwater habitat. I was occasionally able to earn fishes and food by doing small jobs for a local petshop owner. Eventually my enthusiasm came to the notice of the committee of an aquarium society, who invited me to one of their meetings. And for the first time I met other people (almost) as "fish-crazy" as myself. After a while I became possessed of the urge to share my observations with others, and I gave my first lecture to this club at the age of 15. One year later I joined the DCG (the German Cichlid Association), and after another year my first article for the association was published.

Cichlids were my first great passion. And before long it was no longer enough to describe my observations in words, I wanted to record them with photos as well. First with borrowed equipment, later with an old Prac-tica "Super TL", which had only a manual shutter but was at least a singlelens-reflex camera. This produced the first usable transparencies, which were actually good enough to be published in aquarium magazines. Fishes and fish photography were now the be-all and end-all of my existence. At an aquarium centre in Munich I found just the selection of exotic fishes I was looking for, and this formed the basis of a collection of photos that now numbers thousands and now allows me to contribute to the illustration of numerous books and magazines. Because published information on fishes is easily forgotten and often difficult to find again, I developed my own data banks in order to catalogue and archive aquaristic and ichthyological information, thus making it easy to access at any time. As an amateur diver I observed the behaviour of fishes in their natural habitat, thus filling the gaps in my knowl-edge. Only recently I was able to undertake journeys to distant places, now that my children are older. Top of this wish-list were Tunisia and the desert mouthbrooders of its oases, the Gambia and its fascinating river, and most of all Uganda, where I could visit the magnificent Lakes Victoria, Edward, George and Albert, and many other small lakes.

The interest in catfish was developed relatively late. First of all around 1980 were species of the genus Synodontis only kept as occupants for cichlids. But around 1990 I made pictures of newly imported loricariids for a wholesaler. Because for some strange reasons it was not possible to publish them as new L-numbers in a magazine what developed these numbers, so I made an arrangement to transfer this system to another journal. That's how LDA-numbers were created (L-numbers published in "Das Aquarium"). Doing this I soon found contact to many catfish-scientists, and last but not least to aqatalog. These people were looking at that time for a photographer of their constantly new imported fishes. Later I became an author for two of their books. Fish have become a major part of my life. Nevertheless I have managed to pursue a parallel career as a social worker in order to support myself and my family.

Erwin Schraml
The submerse residence of the loricariid *Hemiancistrus medians* (Kner, 1854): a catfish found its home after 138 years

BY ISAAC J. H. ISBRÜCKER

Vertebraten/Ichthyologie, Zoölogisch Museum Amsterdam, Universiteit van Amsterdam, Postbus 94766, 1090 GT Amsterdam, Nederland

The bulk of commercially imported animals (and of plants for that matter) is transferred from one owner to the next without detailed information about the locality from which they had originally been taken. In the past, many species were described with wrong or even without locality information at all.

When it concerns an identifiable, thus known species, the only disadvantage may be that we cannot be certain whether such specimens came from a known or from a hitherto unknown place. It frequently happens, however, that imported animals are specimens that represent unknown species (they are new to science, such is the common expression). The scientist confronted nowadays with such a case is facing a dilemma, even when the new species is clearly distinct from its closest relatives. The lack of any detailed knowledge about the original locality (called the type locality, an important bit of information) is a severe drawback. It frequently takes many years - and more often than not a little bit of luck - before one is able to retrieve the place from which such animals must have been gathered. In view of the serious handicap yielded by specimens of new species of unknown provenance, scientists have rightfully shown great reluctance, even ignorance, to use them in establishing a new species until such a time that reliable information about its natural residence becomes available.

The Austrian ichthyologist Rudolf Kner [1810 — 1869] published descriptions (1854a, 1854b) of all of the species of Loricariidae present at the time in the Vienna Museum, mainly those collected by Johann Natterer during his long sojourn in Brazil: 18 years, in which he collected 1617 specimens of fishes (Papavero, 1971). Kner (1854b: 256) stated: "...finally, I add some observations I made in the various German museums which I visited most recently on account of this family of fishes. This contributed in several ways to the extension of my knowledge about this group." He continued on the same page: "All the museums combined which I visited in Germany do not yield the richness in species, which the Imperial Museum [in Vienna, Austria] possesses alone; moreover, the identifications are not always quite reliable." ... "Besides these I only found ... a hypostomid in the Royal Museum of Stuttgart, erroneously named *barbatus*, which is lacking from the 'Court-Naturalia-Cabinet' at home. It is an *Ancistrus* with a stocky appearance, a dorsal fin with few rays, keeled and coarsely toothed trunk scutes, a bundle of very long hooks with a form like those in *Ancistrus* *mystacinus m.* [Kner, 1854, then also a new species] and the following species, with a short head, broad snout, large eyes, very long pelvic fins reaching beyond the anal fin and very prickly pectoral fins; trunk and fins are covered with large, dark spots, the abdomen is close-set with small scutelets. Even the last character alone distinguishes it from all other species with which I am acquainted, since I do not know any other *brachypterin* [meaning short-finned] *Ancistrus* [meaning provided with barbed hooks] with an abdomen covered with scutelets, which, in contrast, is characteristic of all the *macropterin* [= long-finned] *Lictores* [after 'lictor,' a minor officer among the Romans, from the Latin verb *ligare*, meaning to bind, alluding to the bundles of bound rods which he bore]. While therefore this species represents the intermediate link between both groups, the name *Ancistrus medians* would probably appear to be not inappropriate.*

This completed the description of this species when new to science. Kner (loc. cit.: 281) mentioned its systematic position, without adding data. Apparently he
had examined only one specimen (which is then the holotype), although it is not impossible that he had seen more than one specimen (which are then syn-types) while writing the description. Size nor locality were recorded by Kner.

On the basis of this description only, Pieter Bleeker (1862) established a new genus for Kner’s species, which he named Hemiancistrus.

Albert Günther (1864) considered Hemiancistrus as a subgenus of Chaetostomus [the correct spelling of which is Chaetostoma]. He gave a rather detailed description of two “fine specimens” from Surinam of his “Chaetostomus medians” which were purchased of Mr. [August] Kappler, but Günther provided the reference to Kner’s description with a question mark. He added: “I have no doubt that our specimens are identical with Ancistrus medians of Kner, although he describes the belly as densely covered with small shields [Günther, however, observed: “Thorax and belly nearly entirely naked, being covered with patches of small granulations only laterally and anteriorly.”]; M. Kner saw his specimens in the Stuttgart Collection, which received them from the same source as the British Museum.”

Charles Tate Regan (1904) placed Hemiancistrus as a synonym of his Ancistrus (which was a genus completely different from the one we call Ancistrus nowadays) and again described the same two specimens which had been available by Günther 40 years before; the largest one measured 220 mm in total length.

In February 1989 I learned that Dr Ronald Fricke, Curator of Fishes of the Staatliches Museum für Naturkunde in Stuttgart was preparing a catalogue of type specimens of fishes in his collection. In reply to a letter of mine he noted that in the old catalogue there were records of three specimens, identified as “Chaetostomus medians Kner”. One was a dried specimen, collected by Kappler in 1848 (before Kner’s description), the other two were adults preserved in alcohol, also collected by Kappler but in 1860 (after this description). Further correspondence with Dr Fricke, including a comparison of specimens with photos yielded (20-III-1991) that the holotype of Ancistrus me-
dians must be considered lost, since there does no longer exist a dried specimen from 1848, the characters of which match Kner’s description. Fortunately, in the Stuttgart Museum (SMNS 791) the two specimens in alcohol of Hemiancistrus medians, collected by Kappler in 1860 are in good condition.

They originated from the Rivière Marouini (spelled Marowini Rivier in Surinam), downstream of the village Epola, Maroni (Marowijne in Surinam) river system in French Guiana, to which I restricted the type locality (Isbrücker, 1992: 57). Previously, this area was Surinamese territory.

The specimens illustrated in my previous (and this) note were collected by Dr Jean-Pierre Gosse at the type locality on 22 October 1969. Finally, it is not only possible to redescribe Hemiancistrus medians; because it is the type species of the genus it is also possible to prepare a meaningful revision of Hemiancistrus. The illustrations of the habitus of this important species, published in my note of 1992 possibly were the first such illustrations ever issued. The conspicuously long odontodes on the pectoral fin spine in the adult may or may not indicate a sexual difference of the male.

Acknowledgements

I am grateful to Dr Ronald Fricke of the Staatliches Museum für Naturkunde, Stuttgart, to Dr Jean-Pierre Gosse of the Institut Royal des Sciences Naturelles de Belgique, Brussels, for information and for the loan of material, and to Mr Rainer Stawikowski, Gelsenkirchen (Editor in Chief, DATZ, Die Aquarien- und Terrarien Zeitschrift) for moral support.

References


Günther, A. [C. L. G.], 1864 Catalogue of the


What Do You Feed Your Catfish?

This catfish, caught on the River Ebro in Spain, weighed in at 172lb.

It's captor, angler Martin walker from England, together with his friend, Colin Bunn, caught 8000lb of catfish during their June holiday. The largest weighed in at 174lb. However, it was Martin's smaller fish that stole the show. He said "When we had the fish out of water, we saw that it had a huge, abnormal swelling in it's stomach. After weighing it and taking some pictures we decided to investigate. I held the mouth open as Colin put his hand down it's throat and he promptly began to pull out an undigested decomposing carp of 19lb. What was even more bizarre was the thick orange hair that Colin also took out of the Carp. It looked exactly the same as the hair on the backs of the wild boar that cross the river".

(Original article by Steve Partner for the Angling Times)
Catfish Safari.... Virginia

by R. Shane Linder  shane@wizard.net

I recently had the opportunity to go collecting native (North American) fishes with about the best crowd you could ask for. Mike Thennet, my regular "collecting buddy", is the Virginia representative for the North American Native Fishes Association (NANFA). Mike and I met up with Bob Bock, the president of NANFA, Chris Scharpf (the editor of NANFA's magazine "American Currents"), and Christena a graduate student at Virginia Polytech Univ. studying fish population genetics.

Our first stop was on the Maryland side of the Chesapeake where we collected various fishes from brackish areas. These were mostly Fundulus spp., but also collected were anchovies and other odds and ends. After Christena had all the fish for her study, and we all had more killies than we could keep, Chris mentioned a location not far away that held madtoms.

Needless to say, I nearly ran to the car to get going. We drove Northeast about thirty miles and were near the Maryland-Delaware border. Here is a "down and dirty" description of the habitat in which we caught Noturus gyrinus, the tadpole madtom.

The location was a creek about five feet wide (1.5m). In places the creek was backed up and formed pools up to 15 feet (3m) across. No madtoms were taken in these pools. The creek averaged about a foot deep and flowed along at a lazy pace. The creek was about 68-70 F and the ambient temperature about 85 F and very humid. The best location to collect madtoms was in submerged terrestrial vegetation. I am not sure what the plant was but it reminded me of clover. The best way to collect the madtoms was to run a handnet through the vegetation. The net would then have lots of vegetation that would have to be carefully removed. The most common species collected with the madtoms were tessellated darters (Etheostoma olmstedi), swamp darters (E. fusiforme), pirate perch (Aphredoderus sayanus) and eastern mud minnows (Umbra pygmaea).

Mike caught the first madtom and immediately called for me. As I made my way up the creek, Mike reached into the net to pick up the tiny catfish (about one inch, 2.5cm) and got a surprise from the fish's pectoral spine. Madtoms pectoral and dorsal spines are poisonous, and from Mike's reaction, I do not doubt that the venom stings! The spine stuck Mike on the tip of his index finger. The wound left a tiny red mark but there was no swelling. Of course, being a true friend I ignored Mike as he sucked at the wound and danced around the creek. I bagged the little guy up happy to have my madtom. Mike sucked at his finger and then pulled it from his mouth every few minutes to issue a series of profanities. I asked Mike to describe the pain (all in the name of science of course!). He said it was at first like a pin prick but then began to burn. The burning sensation then traveled up to his shoulder. The pain stopped all together after 15 minutes.

Other fishes removed, mainly from the pools, included Redbreast sunfish (Lepomis auritus) and Chris' catch of the day, a foot and a half long American eel (Anguilla rostrata).

Total take for the 30 foot (10m) section of creek was five madtoms at one inch, two at two inches, and one at three inches. I would guess the littlest guys were from this spring and summers spawnings while the two inchers were from last year and the three incher was an adult. I took five home and Mike took one.

I set mine up in a ten gallon tank full of Java moss and "decorated" with broken flower pots. Filtration was via a sponge filter rated for 40 gallons. The fish immediately took to frozen bloodworms and brine shrimp, and soon after they took dry foods. The tank was unheated and varied between about 72F and 74F. There have been no problems with the fish and they have adapted well. One fish, on closer inspection, had a parasite of some type on its side just back from the pectoral fin. This did not make removal of the parasite easy since I really did not feel like being stung. I managed to remove the parasite with forceps and the small wound that was left was nearly healed a week later. The madtoms became more active as they adjusted to captivity and were soon feeding even with the lights on. I would highly recommend these cats for the aquarist that wants to experiment with natives.

SL
BARLOWS AQUATIC TRADING

Now selling
RUTO FROZEN FISH FOOD
at
ridiculously cheap prices!
any mixed variety from

* Daphnia * Cyclops *
* Cichlid Mix * Tubifex *
* Vegi Diet * Discus Food *
* Brine shrimp * Bloodworm *
* Malawi Mix * Quintet Mix *
* Lance fish * Marine Mix *
* Chopped Mussel *

25 Packs — £35.00
50 Packs — £65.00

This is the MAIL ORDER PRICE
and includes
NEXT DAY DELIVERY and VAT!
Have your Credit Card ready when you ring
01254 388815
The Spawning and Raising of the Pygmy Cat

*Synodontis petricola* (Mathes, 1959)

by Graham Burnside (photo’s by the Author)

I first chanced upon this species in the spring of 1995 in a well-known aquatic outlet in Bolton, Northern England.

The price of £37.50 put me off at first but I then decided on the spur of the moment to splash out on 3 youngsters which I was told were about one year old and wild caught.

On returning home to Scotland and after a period of quarantine, I then housed them in my 46” x 18” x 15” Rift Valley tank which of course housed my 3 *Synodontis petricola* which by now had a single tankmate, *Tropheos moorii*. As I was busy videoing, something caught the corner of my eye in the tank and the *moorii* was busy eating them. You can just imagine the panic that I was in! so I quickly removed the Cichlid to another tank and went back to watch the spawning scene that was unfolding in front of my eyes.

I started videoing the ritual that involved the male laying his body across the female’s head in a quivering motion not unlike the T-position encountered in the *Corydoras* species. The female was very rounded between the pectoral and ventral fins and the male would move his mouth up and down her flanks in this area and use his mouth in a rasping motion. He would also follow/chase her around the tank using his mouth to stimulate her then they would take up the spawning position where he would grasp her head firmly and they would both shake violently until a cloud of eggs were released. He would also lie alongside the female quivering his body wherein the female would release her eggs and the male would fertilise them with his sperm. The eggs were honey coloured and were between 1.25-1.50 mm in size, they were difficult to see as they blended into the sand as they were similar in colour. The spawning sequel lasted about 2 hours so I took the parents out and the other *petricola*, (most likely a younger female as it was less plump, and the male was making half hearted advances to it) who took no part in the proceedings.

I started videoing the ritual that involved the male laying his body across the female’s head in a quivering motion not unlike the T-position encountered in the *Corydoras* species. The female was very rounded between the pectoral and ventral fins and the male would move his mouth up and down her flanks in this area and use his mouth in a rasping motion. He would also follow/chase her around the tank using his mouth to stimulate her then they would take up the spawning position where he would grasp her head firmly and they would both shake violently until a cloud of eggs were released. He would also lie alongside the female quivering his body wherein the female would release her eggs and the male would fertilise them with his sperm. The eggs were honey coloured and were between 1.25-1.50 mm in size, they were difficult to see as they blended into the sand as they were similar in colour. The spawning sequel lasted about 2 hours so I took the parents out and the other *petricola*, (most likely a younger female as it was less plump, and the male was making half hearted advances to it) who took no part in the proceedings.

The male had a very prominent pointed genital papilla
in front of the anal fins and pointing back towards the caudal, the papilla was white the same as the underbelly. In the female it is a rounded, swollen enlargement from which the eggs are expelled. The parents (and the gooseberry) ignored the eggs while they were spawning and were removed when they stopped.

I removed about half of the eggs into various small tanks and ice-cream cartons (with the ice-cream out of course!). I then added Methylene Blue to some of the containers, as I wanted to lengthen my odds on hatching rates. So I had 3 options, eggs lying in the main tank, eggs with or without Meth Blue, I also placed aeration in some of the tubs but this didn't make any difference later on with the quality of the hatchings. I did inadvertently add an extra drop of Meth Blue to some of the containers and even though the water was still a light blue in colour the eggs did not hatch, so I quite possibly overdosed them, which then led me to the conclusion that the eggs were sensitive to an over-indulge of this treatment. Some of the hatching tanks - containers were illuminated by florescent tubes and there was no difference in the hatch rate, so there is probably no sensitivity to light.

The grand total of eggs reached 800 and out of this number I managed a 65% hatch rate, the rest of the eggs turned white and were non viable. The fry hatched out after 24 hrs and were like thin slivers of glass and very small. Fry were free swimming after three days, their bodies and fins were white all over including the large yolk sac. On the tenth day after spawning they started to take freshly hatched brine shrimp and a few days after this they started to take on dark brown patches along the top of the body, but no spots. A very hardy fish as only thirty or so have died since they were free swimming and most have these have been due to filter problems (see handy tip later). Food-wise the fry also loved finely ground Aquarian flake + Promin (80+20%). The young are happier in larger groups and more likely to come out into the open to feed, the tanks with more young in them grew faster no matter the size of tank or filter. Provide plenty of hiding places to make them feel more confident.

I then fed Brine Shrimp Nauplii for the first couple of months as their mouths are very small, and after this fed Tetra tabimin tablets and my own recipe of a homemade mix of flake and spinach bound together with gelatine At 6 months they were 1½ins standard length (from snout to caudal peduncle). I found them to be very slow growing but I now have about 500 carbon copies of the parents which are relatively easy to raise on the afore mentioned food.

Tank Information: 24" x 12" x 12" with tufa rock, sand and a large sponge filter. P.h. 7.5.

Handy Tip: If using internal power filters make sure the return outlet is above the water line, as the like to swim up this and into the impellor (death) chamber, especially if the outflow is slowing down. Another place you will find them is below your undergravel filter plate, so make sure your uplift tube ends above the waterline.

**Afterthought:**

These fish have apparently been spawned in the aquarium before but using the cuckoo method and with small numbers of fry being produced. This spawning was obviously an egg-scattering type, as the number of eggs (and the video) clearly proves. So what does this fish use as a spawning method in the wild, the similar species, Synodontis multipunctatus, has only ever been reported as spawning in the cuckoo style. Is that why it is more prolific in the wild? Does it give its young a better start in life rather than just scattering its eggs ???

**Graham Burnside.**
burnside@madasafish.com

This article is from the ScotCat website at www.scotcat.com/articles/article25.html. Published in **CAT CHAT** with the kind permission of the author.
Don't forget your

ANNUAL AUTUMN AUCTION

19 NOVEMBER 2000
At
St Elizabeth’s Parish Hall
Bolton Road
Aspull
Wigan

Doors Open 1000 hrs

Lots may be pre-booked by ’phone
(01942 248130)
Booking in from 1100 hrs on the
day.

Auction starts 1300 hrs prompt
All day Canteen

REFERENCES FROM PREVIOUS PAGE:
Corydoras barbatus. Rio de Janeiro Aqualog Page 97,98 (s18530-4)
Corydoras barbatus, Sao Paulo
Corydoras lacerdai, Aqualog, Page 100 (s19105-4)
Corydoras sp (Baiananho11) Aqualog Page 100 (s20030-4)

Breeding:
C. barbatus (Quoy & Gaimard 1824) www.scotcat.com/articles/article14.htm

Photo Credits:
Corydoras barbatus (Rio de Janeiro) = www.scotcat.com
Corydoras barbatus (Sao Paulo) male = Jim Makin.
Corydoras lacerdai = Adrian Payne.
Corydoras barbatus (Sao Paulo) Juvenile = Jim Makin
Corydoras barbatus (Sao Paulo) Female = Jim Makin
Corydoras barbatus (Sao Paulo) eggs = Jim Makin

CONVENTION 2001
SUNDAY 18 FEBRUARY

Guest speaker

ERWIN SCHRAML

at
LOWTON CIVIC HALL
Lowton
(A580 off the M6 at Haydock Park)
Wigan

Doors Open 1000 hrs

Entry fee £5.00
Non-members £6.00

All day canteen

MEETINGS

15 OCTOBER
CALLICHTYIDAE

19 NOVEMBER
AUCTION

10 DECEMBER
FREE HOT POT
CHRISTMAS GET TOGETHER

21 JANUARY 2001
AGM
Always A Huge Selection Of Fish From All Over The World!

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

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

* Vast Dry Goods * Aquarium Furniture
* our own OATA approved Red Sea Aquariums
* 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
one of the North West's Premier Angling Centres.

BRITAINS AQUATIC SUPERSTORE LTD
225 FOLDS ROAD
BOLTON
BL1 2TW

Tel: (01204) 534343 * Fax: (01204) 364174
Email: Info@britains-aquatic.co.uk
Web site: www.britains-aquatic.co.uk
Observations of Three Species of the Genus Corydoras

by Jim Makin

Returning to the hobby after a break of several years, I was expecting to find many a new and interesting species, but a dwarf species resembling Corydoras barbatus? This I would love to have. In the eighties I kept and bred some 20 species of Corydoras, having particular success with barbatus (Sao Paulo type) but I didn't breed the larger barbatus (Rio de Janeiro type) until I returned to the hobby in the mid nineties. In 1997/8 I managed to purchase eight Corydoras laceraidai. My first thoughts were how close they resembled Corydoras barbatus, which I had at home at this particular time. I have now kept and bred all three species but felt that it was time to collate all the information gathered during my spawning success.

Corydoras barbatus (Rio de Janeiro) 10 cm/12 cm. This is the largest of the three species both in actual size and stature. The pectoral and dorsal fins are longer with the males sporting cheek bristles.

Corydoras laceraidai - 5 cm/6 cm. In size this Cory resembles the genus Aspidoras but its body shape certainly resembles C. barbatus but having no apparent cheek bristles. When eight fish (4 males 4 females) were bought some Aspidoras were in the same shipment, which I had mistakenly caught as they so closely resembled the female C. laceraidai.

Breeding C. barbatus (Sao Paulo). (Ref. Catfish Association GB. 1978)

I have very recently bred these fish again (1999). On this occasion five fish, 2 males and 3 females, were kept in a 72 x 24 x 15 aquarium with Corydoras narcius-sus and Cory.sp (Peru Blacks). Temp was low at 70F, pH 6.8 -7.5. DH was never checked. The tank was well filtered and plenty of water circulation. On this occasion some interesting observations were made with both males taking turns in spawning with the two females. The females would lay their eggs on the area where the respective males had cleaned.
Both females spawned with the two males. It would appear that the aquarium was large enough to accommodate territories for both males, the eggs were laid high near the water surface. The eggs were removed and hatched out in a small tank. The fry were moved on as they out-grew their container and they were finally reared on in 24 x 24 x 12 tanks.

They were fed on brine shrimp, micro worm and grindle worm. I found that you had to be very careful with the micro worm as they could easily infest the tank/container and eat the very small fry. I also found that one of the commercially made fry foods was the best until the fry could eat the grindleworm or brine shrimp.

Breeding C. barbatus (Rio de Janeiro) Temp again was low at 70F and pH 7. This form was first kept in the late 80's but no serious attempt was ever made to breed them. It was not until the mid 90's that they were kept and bred. A group of six large fish were kept in a 40 x 15 x 15 aquarium and the spawning occurred after they had been conditioned for several months. An apparent pecking order was observed. The alpha male had a richer colour and dominated the tank with his constant showing off to the females and subordinate males. The dominant male carried out the spawning, and as the females became ready he would entice her to the area he had prepared where they would lay the eggs in the normal cory manner and then place them within an inch or so of the water surface. They hatched within four to five days and reared as previously described.

Breeding Corydoras lacerdai. Reproductive and feeding activities are similar to the other two. The eggs again being laid high and nearly out of the water, they did prefer higher water temperatures and out of 6 spawnings only three produced viable eggs and fry. The male would be so obsessive, chasing the other males away. The female he was spawning with would eventually strip herself of eggs. She could be seen coming out of the water laying the eggs as near to the water surface as possible. The eggs were collected and fry reared as C. barbatus. Some difficulty was encountered when spawning attempts were made as the males were more aggressive and would not tolerate any other males (similar aggression was observed in C Narcissus and C. sp (Peru Blacks). In fact two males were lost which appeared to be caused by harassment from the alpha male. In later attempts with C. lacerdai, the fish were paired off and placed in a 12 x 10 x 10-inch tank with C. Pygmaeus and some young Cory's. This was not successful, as the fish did not seem to settle in this situation. Both the C. barbatus types were produced easily and in large quantities, but sadly not the C. lacerdai. After six spawning I lost all the parents and remaining juvenile fish after I moved them to the new fish house. I do believe some of the young I bred still survive around the UK today, and hopefully will be reproduced.

Drawings of fry growth.

7 Days 60 Days 6 Months

C. lacerdai developed their adult colour patterns by nine months and they are sexually mature and would produce viable fry by one year. C. lacerdi colour will change to adult between 6/9 months while C. barbatus retains this colour till 18 mouths.

Conclusion: We have here a group of Corydoras that are closely related. Their feeding behaviour, reproductive behaviour and day-to-day behaviour is very similar in the three types kept. The colour development of the fry in all three types are also alike. In C.barbatus it is not until the are 18 months old that the different types can be identified. The two male types were then easy to identify but the females are almost identical in colour, eventually the larger size of Rio de Janeiro type was the only visual difference. Care should be taken not to mix these similar Cory's as they may inter-breed.

As an aquarist we do not have the scientific knowledge to comment on the validity of these species. But in our hands we do have the opportunity to make observations on their behaviour that will never be seen, which could shed some light on the true identification of such similar Corydoras.

Jim Makin 2000

Jim.ekoz@cableinet.co.uk

References: (see Page 11)
MEET THE MEMBERS

Bill Hurst
The Hon Secretary & Treasurer of the Catfish Study Group (UK)

When I was little my mother used to take me out in the countryside, there was plenty of it then. It was from these outings that I got my interest in nature. I used to catch frogs, newts, natterjack toads, sand lizards, sticklebacks, minnows, in fact anything that would fit into a net. When I joined the army, I took up angling and used to have an aquarium to keep small coldwater fish in - like gudgeon, pope, lampreys (which I never saw until cleaning time) millers thumb and cray fish.

I was eventually posted to Celle in Germany where I was given a small aquarium. The intention was to get a goldfish for my young son. My wife went into town and a smart salesman talked her out of a goldfish and into buying a tropical set-up. I have always had a tropical aquarium wherever I have been since then. I joined Salisbury tropical fish club shortly before I left the army and served as chairman for a while.

When I became a civilian in 1984 I worked with Dave Sands in his DEE BEE Aquarium World (you'll see my name in the acknowledgements in a couple of the volumes of Catfishes of the World). It was during this time that I became a member of the Sandgrounders Aquatic Society and the treasurer of the Northern Area Catfish Group (the forerunner of the Catfish Study Group).

This period as a civilian was short lived and I got a job in Angola (carrying an AK 47 and a pistol) where I worked on and off for twelve years. I had returned to England for a while when my mother fell ill, and did a short stint as Secretary for the NACG during that short stay.

In 1996, after the General Manager was killed by a landmine and work ceased, I returned to the UK and rejoined the NACG and the Sandgrounders and became gainfully employed.

During my time in Angola, I acquired some glass and made myself an aquarium. I went prepared with some silicone, an air pump and some fishing tackle.

I managed to fish in the Rio Cuango, home of Synodontis cuangoanus, Rio Luembe, Rio Chiumbe and a number of still waters where I caught a variety of fish. When I caught my first Synodontis, I still don't know exactly what it was, I was excited - my first tropical fish - my pal thought I had gone mad. Synos were very much in demand in England at that time and were quite expensive. He told me to give it to the houseboy to eat. I stupidly replied that I could get £60 for it. "Not here you won't, they only use Kwanzas here and they're no good outside Angola".

The best chances I had of obtaining fish was when the rivers were diverted and the original river bed was mined for diamonds. Most of the Angolan workers knew me and would keep fish for me when I was patrolling the area. I managed to photograph quite a few of the fish but I had to develop the films myself because the communist system would not let undeveloped film out of the country. In my home made tank I had had elephant noses, long, short and no nose. I had Synodontis which I thought were afrofischeri but later discovered that they were cuangoanus (personally I couldn't see any difference), Euchilichthys, a lyre track eel, Phractura, baby Claras, Heterobranchus and various characoids.

Since keeping tropical fish I think I have kept most types but I favour catfish and I have also managed to breed a few common types like Farlowella, Corydoras, Ancistrus and Rineloricaria.

During the time I was Secretary of the NACG (the first time) most of the committee members lived in Southport where I now live. (Southport is a seaside town north of Liverpool). Now the Committee is scattered all over England and Scotland and I have been lumbered with the job of Secretary/Treasurer/Cat Chat assembler. Contributions are hard to get from people. Although most fishkeepers will tell you exactly what you want to know, very few will put pen to paper. I don't believe that they can't write, I just think that they are frightened of being contradicted.
All of the usual species and some rarer examples too

Prestwood Petzone

The Midlands top aquatic centre!

Tropical fish

- Pumps
- Filters
- Accessories
- Tanks
- Food
- Lighting
- Plants

With 20 years experience, we can not only provide you with everything you need, we can give help and advice on most aspects of keeping fish.

Over 200 tanks, well stocked with top quality freshwater tropical varieties.

Wolverhampton Road (A449), Prestwood, Stourbridge, West Midlands DY7 5AF

Visit our website for further details: www.pet-zone.co.uk

Tel: (01384) 877150 & 877757
Fax: (01384) 877101

Opening Times: Mon - Fri 9am - 6pm, Sat, Sun & Bank Holidays 10am - 5pm
THE FIRST 100

CATFISH

STUDY

GROUP

(UK)

MEMBERSHIP LIST

NOT FOR ISSUE/SALE TO NON-MEMBERS
The following Membership Rules are extracted from the Catfish Study Group booklet: 'THE CONSTITUTION AND MEMBERS RULES.

Members are reminded that any changes to the constitution and the Rules can only be made at the Annual General Meeting (see also Rules 28 & 29).

A number of members have queried Rule 12.

To clarify the matter, it means that if a current member, for example, does not subscribe in 2001, he/she will not receive mail from us but his/her name will remain on the membership list for that year. If he/she then requires to re-subscribe after one year, in 2002, there will not be a joining fee.

If that member does not subscribe again in 2002 his/her name will be deleted from the list. Should that person then wish to rejoin, he/she will be treated as a new member and pay the full cost of membership and be given a new membership number

**MEMBERSHIP RULES**

11. There will be a one-off Membership Joining Fee (for administration purposes) together with an Annual Subscription.

12. Membership will be from AGM to AGM. Membership and Subscription Fees shall be set at the AGM and will not be refundable or reduced for part of any year. Members who fail to renew after one year of lapsed Subscriptions will have their records deleted. Should they wish to rejoin at a later date, they will have to pay the Joining Fee again.

13. Every Member will have a permanent Membership Number, including Family Members who will have the affix a, b or c etc. after the main family member number. Family Members who leave the family home, will thereafter pay a separate Subscription Fee (but not the Joining Fee).

14. There are to be two classes of Membership only:

**Adult/Family:** Aged 18 yrs and over and includes husband or wife and family as one member, provided they reside at the same address in Great Britain or Ireland (including the Republic).

**Overseas:** Any Family/Adult residing outside of Great Britain and all of Ireland.

15. Membership to the CSG shall not be restricted by colour, religion, sex, nationality etc. but it shall be a requirement that all Members agree to abide by these rules. Any Member found to be discriminating to any of the aforementioned groups will be invited to either conform or leave the CSG.

16. Any fully paid up Member shall have the right to attend any CSG Committee Meeting. Details of the venue should be obtained from the Chairman.

17. Any fully paid up Member may arrange to inspect the CSG Account Books and Minute Book with the Treasurer or Secretary at any meeting.
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Address</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TREVOR MORRIS</td>
<td>102 Cale Lane, New Springs, Wigan, Lancs</td>
<td>01942 242386</td>
</tr>
<tr>
<td>2</td>
<td>DR PETER BURGESS</td>
<td>3 Maccalls Cottages, Maccalls Lane, Gt Warley, Wrexham</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BILL HURST</td>
<td>18 Three Pools Crossens, Southport, PR9 8RA</td>
<td>01704 212390</td>
</tr>
<tr>
<td>4</td>
<td>JOHN HENDERSON</td>
<td>3 Dovebank Road, Little Lever, Bolton, Lancs</td>
<td>01204 793381</td>
</tr>
<tr>
<td>5</td>
<td>D &amp; A BLUNDELL</td>
<td>19 Berwick Way Heysham, Morecambe, Lancs L3A 2UA</td>
<td>01524 853424</td>
</tr>
<tr>
<td>6</td>
<td>BRIAN WALSH</td>
<td>9 Marsh Terrace, Darwen, Lancs BB3 0HF</td>
<td>01254 776567</td>
</tr>
<tr>
<td>7</td>
<td>PETER LIPROT</td>
<td>Bolton Museum Aquarium, Le Mant Crescent, Bolton, Lancs BL1 1SE</td>
<td>01204 332200</td>
</tr>
<tr>
<td>8</td>
<td>TERRY WARD</td>
<td>28 Wilkinson Street Leigh, Llanelli, WN7 4DQ</td>
<td>01942 606155</td>
</tr>
<tr>
<td>9</td>
<td>ROY BARTON</td>
<td>240 Hodges Street, Wigan, Lancs WN6 7JQ</td>
<td>01942 248130</td>
</tr>
<tr>
<td>10</td>
<td>D &amp; L SPEED</td>
<td>7 Oakdale Close, Broughton, Near Chester, CH4 9PA</td>
<td>01244 534060</td>
</tr>
<tr>
<td>11</td>
<td>IAN FULLER</td>
<td>68 Canterbury Road, Kidderminster, WORC'S DY11 6EU</td>
<td>01562 637277</td>
</tr>
<tr>
<td>12</td>
<td>DAVE BARTON</td>
<td>35 Flinthby Birch Green, Skelmersdale, Lancs WN8 8FD</td>
<td>01609 732081</td>
</tr>
<tr>
<td>13</td>
<td>MR &amp; MRS D A CLARK</td>
<td>7 Hallard Way, Strensall, YORK YO32 5ZQ</td>
<td>01904 429362</td>
</tr>
<tr>
<td>14</td>
<td>MR &amp; MRS D A PAGE</td>
<td>68 Carter Avenue, Broughton, Kettering, NORTHAMPTONSHIRE NN14 1LZ</td>
<td>01536 790932</td>
</tr>
<tr>
<td>15</td>
<td>TRACEY WORMWELL</td>
<td>12 Starfield Close Southpark, LYTHAM, Lancs FY8 4QA</td>
<td>01253 730648</td>
</tr>
<tr>
<td>16</td>
<td>I. MACRITCHIE</td>
<td>11 Wyvis Cres, Conon Bridge, Ross-shire, IV6 8BZ</td>
<td>01349 863615</td>
</tr>
<tr>
<td>17</td>
<td>S CUTHBERTSON</td>
<td>24 Blackford Hill Grove, Edinburgh, SCOTLAND EH9 3HA</td>
<td>01316 647962</td>
</tr>
<tr>
<td>18</td>
<td>GARY SOUTAR</td>
<td>27 Primrose Place, Hillyland, Perth, SCOTLAND PH1 2QS</td>
<td>01738 449656</td>
</tr>
<tr>
<td>19</td>
<td>JEFF CAIN</td>
<td>11 Norwood Road, West Denton Hall Est, Newcastle, Tyne&amp;Wear NE15 7LF</td>
<td>01912 432345</td>
</tr>
<tr>
<td>20</td>
<td>ARTHUR GROGAN</td>
<td>153 West Farm Ave, Longbenton, Newcastle On Tyne NE12 8TL</td>
<td>01912 693365</td>
</tr>
<tr>
<td>21</td>
<td>JIM MAKIN</td>
<td>Bantaskine Cottage, Main Rd, Maddiston Stirlingshire, SCOTLAND FK2 0NC</td>
<td>01324 716808</td>
</tr>
<tr>
<td>22</td>
<td>MARK BRYSON</td>
<td>11 Highfield Ave Glenburn Paisley, SCOTLAND PA2 RLG</td>
<td>01418 844701</td>
</tr>
<tr>
<td>23</td>
<td>GRAHAM BOOTH</td>
<td>4 Moorland Road Cheddleton, Nr Leek STAFFS ST13 7HZ</td>
<td>01538 361701</td>
</tr>
<tr>
<td>24</td>
<td>ALLAN JAMES</td>
<td>&quot;Duisdale&quot; St, Andrews Sq. Dunoon, ARGYLL, Scotland PA23 7PD</td>
<td>01369 703550</td>
</tr>
<tr>
<td>25</td>
<td>PAUL DIXON</td>
<td>31 Ellen Avenue RAINHILL, Merseyside L35 0NZ</td>
<td>01512 598190</td>
</tr>
<tr>
<td>26</td>
<td>TONY FLYNN</td>
<td>12 Balmoral St Hebdon Bridge, West YorksHX7 8B</td>
<td>01422 845086</td>
</tr>
<tr>
<td>27</td>
<td>JOHN ROBERTSON</td>
<td>77 Byram's Leap BURNFIELD, Co Durham NE16 6BS</td>
<td>01207 271273</td>
</tr>
<tr>
<td>28</td>
<td>MR &amp; MRS J BOARDMAN</td>
<td>10 Hood Grove LEIGH, Lancs WN7 3AX</td>
<td>01942 671463</td>
</tr>
<tr>
<td>29</td>
<td>JULIAN DIGNALL</td>
<td>2F 11 Church Hill Place Edinburgh, SCOTLAND EH10 4BE</td>
<td>01314 473779</td>
</tr>
<tr>
<td>30</td>
<td>DAVID MARSHALL</td>
<td>16 Potter Hill PICKERING, N Yorks YO18 8AA</td>
<td>01751 472715</td>
</tr>
</tbody>
</table>
MEMBERSHIP LIST 2000

31 TERRY WILKINS
104 Jasmin Road
West Ewell
SURREY
KT19 9DX
01819 742943

32 ANDREW T. EDWARDS
136 Victoria Road
Fenton, Stoke On Trent
STAFFS
ST4 2LX
01782 413899

33 ALAN HOLMES
6 Bowes Avenue
Heworth
 YORK
YO31 0UZ
01904 414272

34 JOHN COWAN
7 Warrenhill Road
Greenlea, Collin
DUMPHRIES
DG1 4PW
01387 750606

35 STEPHEN PRITCHARD
2 Greenhill Avenue
LUTON, Beds
LU2 7DN
01582 486649

36 IAN PITTS
171 High Street
ARLESEY, Beds
SG15 8TB
01462 731225

37 P & R HUSTINGS
2A Larch Street
SOUTHPORT, M'Side
PR8 6DP
01704 541177

38 PAULINE HUSTINGS
Flat 36, Kenworthys
Bath Street
SOUTHPORT, M'Side
PR9 0DW
01704 541346

39 DENIS SLOUGH
FISHIZ, 76 Hart Lane
LUTON, Beds
LU2 0JG
01582 488788

40 D & K WRIGHT
21 Carr View
South Kirkby
PONTEFRACT, W Yorks
WF9 8BU

41 MARY T JACOBSON
69 Dukes Drive
Newbold, CHESTERFIELD
S41 8QE
01246 234713

42 GILES BARLOW
Barlows Aquatics Trading
20 Scatcliffe Street
ACCINGTON, Lancs
BB5 0RF
01254 398815

43 BILLY GRANT
17 Inglenook Avenue
Milletstown, GLASGOW
G33 8PT
01417 709201

44 IAN CROYDON
15 Fellows Street
Blakenhall
WOLVERHAMPTON
WV2 4ND
01902 830020

45 MICHAEL BARNARD
Oakfield, Lowestwood Lane
Wellhouse, Golcar
HUDDERSFIELD
HD7 4EW
01484 654635

46 RICHARD EDGE
21 The Strand
Bromsgrove, WORCS
B61 8AB
01527 833272

47 M & J FLETCHER
36 Trawden Ave
Smithills
BOLTON
BL1 6Jd
01204 644671

48 TONY TYSON
136 Sharps lane
Ruislip, MIDDLESEX
HA4 7JB
01895 639749

49 GERALD RODGER
1 Holmer Down
Woollwell
PLYMOUTH
PL6 7QW
01752 768789

50 DAWN & GARY ELAND
59 Egerton Road, Ashton on Ribble
PRESTON, Lancs
PR2 1AL
01772 769416

51 PHILIP OLD RIDGE
40 Belle Isle Avenue
Wakefield
YORKSHIRE
WF1 5JY
01924 367086

52 G & M SANDFORD
5 Sparrows Mead
Redhill
SURREY
RH1 2EJ

53 DES & BECKY PENNY
Bubbles Aquatics
12A Fountain Court
Epworth, DONCASTER
Yorks
01427 875007

54 INGO SEIDEL
Schirbraker Strasse 51
27777 Ganderkesee
GERMANY

55 HANS-GEORG EVERS
Edger-roo Strasse 21
20251 HAMBURG
GERMANY

56 RAY HOOD
Ty Capel, Nebo
GWYNEDD
LL54 6EE
01268 881168

57 ADRIAN PAYNE
11 The Lapwings
Gravesend
KENT
DA12 5QH

58 G & P THWAITES
9 Bloomfield Road
Bromley
KENT
BR2 9RY
01814 640309

59 CHRIS & KATE RALPH
2 Brookfield Cottages
Providence Hill
Burledon, SOUTHAMPTON
S031 8AU

60 TIM CHAMBERLAIN
90 Vespanis Road
Andover, HANTS
SP10 5JP
01264 353970
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Address 1</th>
<th>Town</th>
<th>Postcode</th>
<th>Telephone 1</th>
<th>Telephone 2</th>
<th>Telephone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>ROBIN WARNE</td>
<td>17 Broad Lane</td>
<td>Delton</td>
<td>H05 8BU</td>
<td>01895 789334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>JOHN GODWIN</td>
<td>14 Leadbeater Ave</td>
<td>Penkhull</td>
<td>ST4 5HE</td>
<td>01782 412238</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>TONY LEE</td>
<td>36 Parkstone Ave</td>
<td>Blackmanstitch</td>
<td>WYK RD</td>
<td>01617 967008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>VIKKI DAVIES</td>
<td>22 Tuxford Road</td>
<td>Macclesfield</td>
<td>FY4 4BH</td>
<td>01253 733518</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>KEN &amp; JULIE LAWN</td>
<td>29 St Johns Road</td>
<td>Macclesfield</td>
<td>SK11 6XV</td>
<td>01625 427582</td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>ALAN ROTHWELL</td>
<td>94 Emsworth Road</td>
<td>Burton</td>
<td>ST3 3EX</td>
<td>01782 317741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>MALCOLM L GOSS</td>
<td>25 The Gowers</td>
<td>Chester</td>
<td>CHES 97J</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>KATHY JINKINGS</td>
<td>65 Rainsborowe Road</td>
<td>Colchester</td>
<td>CO2 7JU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>NICK &amp; TRISH GALLOP</td>
<td>12 Worthington Road</td>
<td>Balderton</td>
<td>NG24 3RE</td>
<td>01636 612175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>DAVID BAKER</td>
<td>17 Bray Court</td>
<td>Maidenhead</td>
<td>SL6 2DR</td>
<td>01628 542206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>STEVEN GRANT</td>
<td>34 Lumley Ave</td>
<td>Castleford</td>
<td>WF10 5LX</td>
<td>01977 553709</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>CLAIRE MARSH</td>
<td>202 Wigan Road</td>
<td>Hindley</td>
<td>WN2 3BU</td>
<td>01942 732065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>PHIL TAYLOR</td>
<td>181 Malpas Road</td>
<td>Brockley,</td>
<td>SE4 1BQ</td>
<td>0181 6912082</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>ADRIAN W TAYLOR</td>
<td>152 Orage Moor</td>
<td>Runcorn,</td>
<td>WA7 5YD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>K &amp; K GOODRUM</td>
<td>48 Northwood Breeze</td>
<td>Luton</td>
<td>LU1 5JG</td>
<td>01582 707280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>WAYNE FORREST</td>
<td>11 Ashcroft Road</td>
<td>Lymm</td>
<td>WA13 9HX</td>
<td>01225 756675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>W.F. WARD</td>
<td>32 Grange Moor</td>
<td>Runcorn,</td>
<td>WA7 5YA</td>
<td>01226 757581</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>HARRO HIERONIMUS</td>
<td>P O Box 170209</td>
<td>Solingen,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>MICHAEL COULSON</td>
<td>10 Hubbard Close</td>
<td>Wymondham</td>
<td>NR18 0DU</td>
<td>01953 606166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>TOM GRAY</td>
<td>1 Bryce Close</td>
<td>Westerhope</td>
<td>NE5 5LH</td>
<td>01912 864215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>JOHN DALLAWAY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>STEVE PYE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>RICKY SAXTON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>ANDREW DUCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>ALAN PILTON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>ALAN SUTTON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>MIKE COLLINS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>ISAAC ISBRUCKER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>COLIN HANKS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>KRISTIANNE LECKER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Address</td>
<td>Phone</td>
<td>Postcode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
<td>----------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>BRIAN JENKINS</td>
<td>2 The Terrace, Sudbrook, Caldicot, Gwent</td>
<td></td>
<td>NP26 5SS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>DAVID BENT</td>
<td>11 Laburnam Ave, Yaxley, Peterborough, Cambridgeshire</td>
<td></td>
<td>PE7 3YQ 01733 242137</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>PATRICK HOWE</td>
<td>Inverlusagan, Connel, Oban, ARGYLL</td>
<td></td>
<td>PA37 1LG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>DAVID OSBOURNE</td>
<td>5 St Philips Ave, Worcester Park, Surrey</td>
<td></td>
<td>KT4 6JS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>LARS AKESON</td>
<td>36 Stephen Road, Bexleyheath, Kent</td>
<td></td>
<td>DA7 6EE 07989 556360</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Sue &amp; Ron BUNGAY-PERRIN</td>
<td>29 Pickwick House, Dickens Estate, George Row, London</td>
<td></td>
<td>SE16 4UT 02072 312317</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>K &amp; L HALSALL</td>
<td>12 Princess road, Standish lower Ground, WIGAN</td>
<td></td>
<td>WN6 8LT 01942 239325</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>RICHARD BROADBENT</td>
<td>229 Drayton Avenue, Stratford- Upon- Avon, WARWICKSHIRE</td>
<td></td>
<td>CV37 9LD 01789 201183</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>K &amp; K RING</td>
<td>26 Hornes End Road, Flitwick, BEDS</td>
<td></td>
<td>MK45 1JJ 01525 714176</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>TOM GALLOCHER</td>
<td>21 Struma Drive, Clarkston, GLASGOW</td>
<td></td>
<td>G76 7QL 01416 381589</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EVERYTHING NEEDED BY THE DISCERNING AQUARIST

COMPLETE SYSTEMS MANUFACTURED TO SUIT INDIVIDUAL REQUIREMENTS

FROM £450.00 +VAT

SPARES AVAILABLE FOR DIY PROJECTS

DISCOUNT EPSON PRINTER CARTRIDGES

SCANNERS FROM £45.95
MODEMS FROM £19.95
(SUPPLY ONLY)

MERMAID SYSTEMS LTD
20 THE STRAND
BROMSGROVE, WORCS.
B61 8AB

TEL 01527 570072 FAX 01527 833601
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