FEDERATION OF BRITISH AQUATIC SOCIETIES

BULLETIN

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winter 2009

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FEDERATION OF BRITISH AQUATIC SOCIETIES

BULLETIN

December 2009

Contents

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Produced for FBAS website by Dick Mills

www.fbas.co.uk

EDITORIAL

Those of you who were there will need no reminding of the great time we all had at this year's Festival of Fishkeeping. For those who couldn't make it, we bring you highlights from the UK's biggest aquatic event.

Although we are justifiably proud that the event is staged under the Federation's banner (with more than a little help from our friends in the Aquatic Trade), the most important thing is, as our President pointed out during the Festival, is that aquarists everywhere in the UK support the event to ensure that it continues to bring so many hobbyists together under one roof – well, five canvas ones, if you want to be accurate.

Reflecting the diverse content of the Festival, we hope you will enjoy this collection of aquatic themes we have gathered together for you in this issue.

Thanks to all who have sent in articles and news items over the past year – please keep sending at least the same amount next year!

We wish all our readers a Joyful Festive Season and a Happy and Peaceful New Year

Malcolm Goss,
25 The Gowers, Chestnut Lane, Amersham,
Buckinghamshire HP6 6ER
tel: 01494 722786 e-mail: malcolmgoss@tiscali.co.uk

Out & About:

Chenies Aquatics

Chenies Aquatics at Farnham Royal is a family-owned business and has been running for nearly thirty years. They have worked in the past, with the FBAS on displays at Hampton Court Palace Flower Shows

Photos by Peter Anderson

The shop sells tropical, coldwater and pond fish, plus ponds, pond plants and water features. If they have a specialisation, it is in providing quality community tropical fish.

Akysis hendriksoni

Corydoras haraldschultzi

Graham Robb, one of the two owners of the business, goes to Holland to buy most of his fish, as they are known for their quality. As one of the wholesalers has over 3000 tanks, quality and choice are both achievable.

As Graham also brings the fish back, this gives the shop a challenge, lots of fish coming all at one time! Graham believes in keeping fish in as near as possible the same conditions as his customers, thus no centralised systems and local water for water changes and top-ups.

If you have brought new fish home for your tank(s) imagine arranging to house 50+ different varieties, all requiring established quarantine aquariums. Some species will number 30 fish while the more popular varieties may be up to 1000!

With 30 years aquatic experience, Chenies staff has other skills, one being the ability to help with supply, advice or design to landscapers, project managers or others involved in large or unusual water featured projects.

So if you are looking for a nice fish or advice on how to build a Koi pond, a visit to Chenies Aquatics could be worthwhile.
Further information at www.cheniesaquatics.co.uk .

Note: You can experience a 'fishing trip' with Graham and Peter Anderson as they collect fish from Holland by viewing the FBAS Video 'Bringing in the Fish' available for free Society hire from Peter Anderson or individual purchase from Keith Doswell.

See details of all FBAS Videos at www.fbas.co.uk

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CREATING THE PERFECT AQUARIUM FILTER

BY LES HOLLIDAY

Rolf C. Hagen, already, is considered one of the most innovative companies in the Aquatics market with a long experience in developing new technologies especially with regard to products in their best selling Fluval range. Hobbyists have chosen to rely on the superiority and quality of Fluval lines over other brands and have not been disappointed with their choice. Fluval filtration products, especially, have been best sellers with the current Fluval 'U' Series internal power filters awarded the 'Freshwater Product of the Year 2009' by Practical Fishkeeping Magazine readers and popular longer established products like the Fluval 05 series and exceptional FX5 canister filters earning similar recognition immediately they were first introduced.

You can imagine therefore that I became quite excited when I was recently given the opportunity to put the new highly innovative 'G' series addition to the Fluval filter range through its paces. The Fluval G3 and G6 canister filters are the culmination of years of research and development into creating something approaching the perfect aquarium filter. This valuable work was undertaken in North America, Germany and the UK and key features like easy, quick and mess-free media changes, filter performance feedback and water characteristics were all aspects which were agreed should be included in developing the advanced Fluval G filter series.

The G3 is designed for use in aquariums up to 300 litres and has a 17w motor capable of a maximum filter circulation rate of 700 lph whilst the G6 has a 28w motor and delivers a maximum filter circulation of 1000 lph for aquariums up to 600 litres, so both models are ideally suited for the aquarium sizes mentioned. The three-stage filtration system incorporated in each filter includes separate mechanical and chemical media cartridges plus a very roomy area reserved for biological media.

Designed to be very easily serviced, these innovative filters come with quick release fittings on the cartridge compartments which, with the aid of a shut off valve, allow each cartridge to be serviced and replaced without turning off the power.

Chemical media cartridges are supplied ready loaded with activated charcoal as standard with each filter purchase but replacement cartridges are available charged with phosphate or nitrate remover and tri-ex cartridges are also obtainable as a refillable alternative.

A unique feature of filters in the G series is the Hydrotech Monitor, an electronic monitoring system mounted on the filter with a splash proof LCD screen which displays flow rate, temperature and electro conductivity. There are also maintenance warnings, which alert the user when the pre-determined scheduled time to maintain mechanical, chemical or biological filters has arrived.

Alert messages, similarly, will also appear when readings for flow rate, temperature, or conductivity are outside pre-set minimum and maximum thresholds. All of these monitoring aids allow the filter to be continuously maintained, under optimal conditions, unlike conventional filters that are usually maintained only at fixed pre-arranged times rather than when conditions require action.

On receiving one of each of the two G series models I started my assessments by reading the clear easily understood instruction manual and following the instructions for installing each unit. Setting up each filter was a breeze taking less than twenty minutes in each case. The exploded illustration of the filters naming all of the individual parts was really instrumental in creating an easy path through the instructions. Each attractively designed black and chrome, cube shaped filter looked very impressive, once assembled, and would look perfectly in keeping with modern furnishings if there was no facility to house the filter out of sight below the tank.

For my tests I decided to use two Fluval Roma 240 ltr capacity aquariums, the G3 filter attached to a tank set up as a marine system, the G6 filter to a tank-housing discus. The subjects used for each of these test tanks represented quite a challenge demanding optimum levels of water quality and could be considered more than an adequate means of assessing these filters.

Setting up the Hydrotech Monitor on each filter was pretty straightforward and where possible to aid my tests I had independent instrumentation to check against values for conductivity and temperature etc. These visual indicators of the mechanical parameters were to become the main test procedure for assessing the mechanical efficiency of each filter but to fully test the capabilities of these filters it, of course, was necessary to also assess the performance of each model in terms of producing and maintaining acceptable water quality. This took the form of chemical tests to judge the efficiency of each filter in meeting acceptable levels over four chemical parameters, pH, ammonia, nitrite and nitrate.

Monitoring of the two filters has now been conducted over several months as part of an ongoing test assessment. Mechanically the filters have proved to be exceptional in performance.

The Fluval G filter siphons water and any suspended debris in through its clog-proof intake strainer and passes it first through the pleated pre filter cartridge which traps most of the suspended solids. The powerful pump then draws the water through the chemical media cartridge. From there it flows into and through the biological filtration baskets where Fluval G Bio Nodes accommodate millions of the beneficial bacteria necessary to break down the nitrogenous waste and finally returns back into the aquarium through adjustable dual output nozzles or a spray bar.

Monitoring the mechanical performance is very easy by just taking a glance at the Hydrotech screen which continually displays water flow as symbolised tubes indicating flow and a white triangle shows % flow rate, water temperature as a centigrade or Fahrenheit value, and conductivity as a value using a conductivity probe consisting of two titanium alloy terminals. As well as providing instant information, the Hydrotech also features read outs in the form of graphs showing flow rates over the last 48 days, water temperatures for the past 8 days and water conductivity over 40 days. The use of electrical conductivity as a hobbyist-monitoring tool is quite new. It relies upon measuring the water's ability to carry an electrical current and indirectly is a measure of dissolved solids and ions occurring in the water.

The more dissolved solids and ions in the water the more electrical current the water is able to conduct. One of the most important issues for aquarium keepers is providing and maintaining a suitable and stable environment for their living tank subjects. Electrical conductivity can be a very important parameter to monitor in both fresh and marine tanks as it provides an alert that something is changing in the aquarium. A natural rise in nitrates, for example, over a 40 day period might cause a 30% increase in conductivity and indicate a partial water change is overdue.

By regularly checking conductivity values on the test filters it was easy to get an indication if something was changing and consequently deeper analysis using various test kits might be necessary.

As the mechanical pre-filter and chemical filter media are housed in separate cartridges and directly accessible from the top of the filter, either or both can be easily removed, cleaned and replaced without disassembling the whole filter. By referring to the indicators always available on the Hydrotech's screen it was easy to assess when cartridge maintenance required attention and could be optimally conducted. As a result the filters tested have continued to function well throughout the whole test period.

Daily chemical tests of the filters indicated that each model followed a maturation pattern, which conformed to the standard developing nitrogen cycle. With the aid of an initial booster dose of the newly formulated Nutrafin Cycle biological aquarium supplement it was possible to introduce fish immediately into the test aquariums. A maintenance dose every seven days followed and assisted in keeping levels of ammonia and nitrite down well within acceptable levels whilst the maturation of the filters took place. As a result both filters performed in line with normal maturation processes as regards the reduction of these potentially toxic waste products.

Production of nitrate is, of course, a natural consequence of the nitrogen cycle process. A very promising feature of the monitored nitrate levels, however, was an indication that anaerobic bacterial forms, which have a major role in controlling nitrate, were soon populating the filters in quite large numbers leading to impressive levels of control over this organic pollutant. This is a very good sign that the filter is well designed to promote anaerobic bacterial action, a feature not found in many filter types where it is usually necessary to additionally employ regular partial changes to assist in controlling nitrate levels.

The design of a filter has a large influence on the mix of aerobic and anaerobic bacterial forms present. Strong water circulation through the filter media favours large populations of oxygen-requiring aerobic bacteria, which efficiently break down ammonia and nitrite but in doing so may overpopulate and cover the outer surfaces of the filter media. This can effectively block access to the inner pores and small internal tubes of the media normally populated by anaerobic bacteria which require the low oxygen levels found in these areas.

The G3/G6 filter models appear to have a good balance in water circulation that encourages both types of bacteria and has a very beneficial effect in promoting complete denitrification where ammonia, nitrite as well as nitrate are successfully processed out of the system.

There is no doubt that the Fluval G series goes a long way towards the goal of a perfect aquarium filter and has ideal applications for both fresh water and marine aquariums.

For more information on all products from Hagen visit www.hagen.com.

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Cryptocorynes

by Simon Check

reprinted with permission from FNZAS Aquarium World, August 2009

Cryptocorynes come from the rainforests of South East Asia and India/Sri Lanka, with approx 60 known species and probably many yet to be discovered. The name *Cryptocoryne*, comes from the Greek words "Krypto"= hidden and "Koryne"= Stick, referring to the hidden spadix.

They are a basal growth herbaceous perennial plant and a member of the Araceae family. With most species of Crypts, the only sure way to identify them is to observe their bloom.

Few crypts will flower while fully submersed, and the actual appearance of a submersed cultivated plant can vary greatly from that of one grown emerse.

In their natural environment they grow in bogs and swamps or grow on stream and river banks, where they are seasonally flooded with the wet season. During the dry season is when these plants will flower, and the flowers can be described as nothing short of spectacular.

After discovering the spectacular and bizarre flowers that this species produces, I decided to try and replicate their natural environment, and see if I could get them to flower.

Because they are from humid and warm rainforests of Asia, these conditions are required to be maintained, due to the fact of an adaptive feature of the plants known as "Crypt Melt." If the plant is subjected to extreme changes, ie temp, humidity, the plant will start to turn brown, and the leaves and stems turn to a mush and disintegrate.

I have used a 300 litre Aqua One tank that has three built-in 30 watt T8 fluorescent tubes. Being covered, keeps the humidity up and temperatures pretty constant.

The crypts had their roots pruned and were planted in small terracotta pots with holes drilled through them to allow water to flow easily around the roots. Planting media is a mixture of general potting mix with sand, peat and Daltons Aquatic Mix.

The pots were then placed into the tank and water was added to the level just below the top of the pots. A 300 watt aquarium heater is the heat source, heating the water to approximately 27℃.

A small powerhead and airpump with an airstone are used to provide water movement to prevent any uneven temperature. This also has the added advantage that it increases humidity due to the bubbling.

Lighting is set on a timer and is running 12hrs on and 12hrs off.

Initially the crypts were kept in a smaller tank inside the main tank, until the size of my collection increased and they were then placed directly into the big tank.

For the first week or two, very little growth occurred due to the pruning of the root system. The reason I trimmed the roots was to encourage new healthy roots to grow, giving the crypts a good start.

Most plants have now shown a considerable amount of growth, with lush foliage and even smaller plantlets shooting up beside the mother plants.

To date, only one of the crypts has flowered for me, C*ryptocoryne wendtii* (this is also the one plant that has grown the most, almost tripling its size) and although this particular crypt does not have as spectacular flowers as some others, it still leaves me with a great amount of satisfaction, and also anticipation, to see what the other plants will produce.

The wait continues..

ASK US

Q: Like many fishkeepers, I like to take photographs both of aquarium fish and pond fish.

However, sometimes my photos are plagued with unwanted reflections, the worst examples are when I try to take pictures, say, of pond subjects. Short of spending ages manually retouching up the digital photos, what can I do to cure this problem?

A: Some months back, we had a similar cry for help by email from Clive, our 'Bali Correspondent' who had the same problem. The answer's quite simple – just invest (and it's not a great amount to get much better photos) in a polarising filter.

This additional 'lens' screws on to the front of your existing camera lens and using it is simplicity itself. Looking through the viewfinder, rotate the filter until the offending reflections fade away to a minimum and then take the picture. That's all there is to it!

The pictures below give you the 'before' and 'after' shots.

Without polarising filter

With polarising filter

A Fishy Story.....
for all of you

A guy who lives at Lake Conroe (50 miles north of Houston) saw a ball bouncing around kind of strange in the lake and went to investigate. It turned out to be a flathead catfish that had apparently tried to swallow a basketball which became stuck in its mouth!!

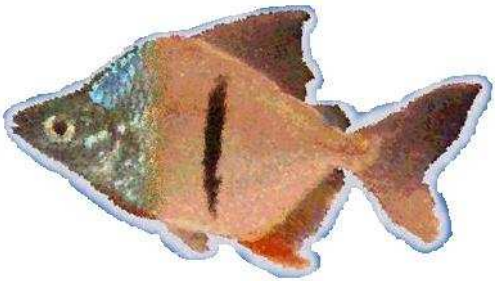
The fish was totally exhausted from trying to dive, but unable to, because the ball would always bring him back up to the surface.

After numerous unsuccessful times to get the ball out, the guy finally had his wife cut the ball in order to deflate it and release the hungry catfish

You probably wouldn't have believed this, if you hadn't seen the pictures.

Be kinder than necessary because everyone bites off more than they can chew sometime in life...

SO THE MORAL IS, IF YOU GO FISHING FOR CATFISH, TAKE BASKETBALLS AS BAIT !!



This may not be your dream fish, but we'd like to know what is.

If you could have any fish you'd like, what would you choose?

Tropical or coldwater, freshwater or marine?

If you have a particular favourite species that you've kept, or would like to keep, please share it with all our readers.

If you want to extend your dreams and ambitions to include the ideal set-up for your ideal fish then that'd be good too.

Don't forget to tell us what the attractions are about your choice and why it holds more appeal for you than all the rest of fish at your disposal.

Obviously, if you haven't yet found your dream fish then you might not have a picture to hand but maybe we can find a likeness for you!

Aquamazonia: 24-27 January 2010

Fancy a trip to the Brazilian Amazon and see where many popular aquarium fishes originate?

If so, you may be interested in *Aquamazonia* – a new and exciting ornamental fish event to be held in Manuas in January 2010.

The coordinator of Aquamazonia is Dr Ning Labish Chao who is also head of Projecto Piaba which is working towards a green and sustainable ornamental fishery within the Brazilian Amazon.

In addition to technical and trade conferences on ornamental fish, there will be visits to local fish farms and field trips to the ornamental fish capital, Barcelos, on the Rio Negro. The field trip will include visiting collecting sites and meeting the fisher folk. After the conference there is an opportunity to fly to Barcelos to join the annual Ornamental Fish Festival and beach parties (29-31 January 2010).

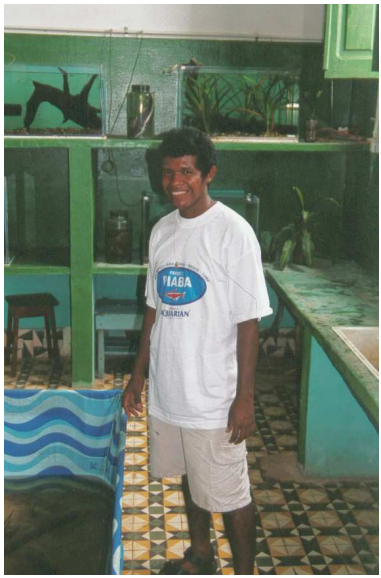
The Amazon is an aquarists' paradise!

The Amazon River is the largest river in the world and drains 20% of all the world's freshwater into the ocean. Its tributaries have their origin in the high Andes, Guyana, and Brazilian highlands; endowing the river water with its white, green, clear, and black colours.

The largest tributary is the Rio Negro; other major tributaries include Rio Branco, Japura, Madeira, Purus, Tapajós, Tocantins, Trombetas, Xingu etc. These river systems are the home to over 3,000 species of fishes; many of which have ornamental value for home aquarium and public aquarium exhibition.

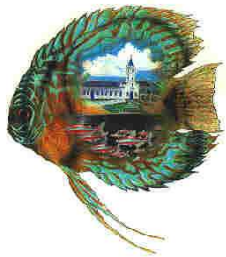
Amazon countries contribute about 10% of the freshwater ornamental fish trade; Brazil, Colombia and Peru are the major exporters.

The wild-caught Amazon ornamental fisheries are strongly tied to livelihood of rural people and the well being of the rainforest ecosystem.



Fish collectors live in remote villages; ornamental fishes have provided a livelihood for tens of thousands of these rural people, or caboclos, for over 50 years.

Ornamental fish as a non-timber forest product have greatly benefited the Rio Negro basin; the fish trade has kept deforestation, wildlife poaching, and socio-economic strife to a minimum. That is why Project Piaba is so important – and something that we (aquarium hobbyists and industry) should all support.



Project Piaba's motto is: "Buy a Fish, Save a Tree".

For more information (in English) on *Aquamazonia* and its programme of events, trade stands, and fishy excursions, visit:

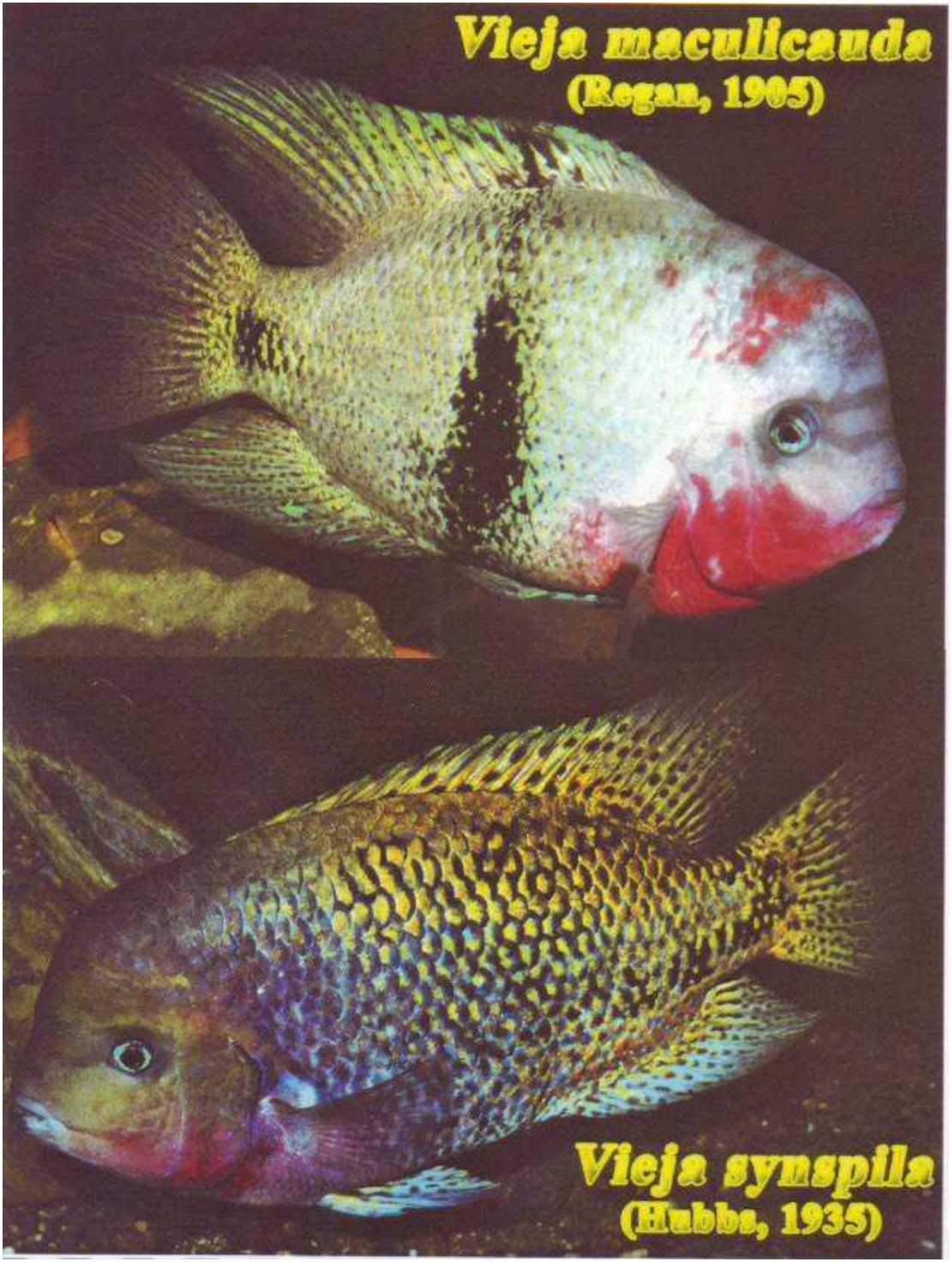
http://www.aquamazonia2010.com/?var=exposition

For more information about Project Piaba, visit:

http://finarama.com/projectpiaba/objectives.htm

AQUARIAN

Dr Peter Burgess
Senior Consultant to Mars Fishcare


Vieja maculicauda
(Regan, 1905)
Vieja synspila
(Hubbs, 1935)

An Overview of the Vieja Complex

by Brian M. Scott
106th Street, Barnegat, NJ 08005 cichlidgeek@yahoo.com
Photographs by Mo Devlin, Greg Ure and Dick Mills

The purpose of this article is to take a concise look at fishes within the genus *Vieja.* The author has provided several resources where further information can be obtained about individual species within the complex. It is strongly suggested that if *Vieja* are fishes that you would like to keep, or you simply want to learn more about the ones that you are already keeping, you should visit the Internet resources listed and speak with experienced hobbyists who have kept, or are keeping, these wonderful and fascinating fishes.

Introduction

The members of *Vieja* are some of the boldest, most brilliant members of the cichlid family. Their often clownish behaviour makes them an instant hit among hobbyists, both experienced and novice. But don't think they are without some attitude, as they are cichlids lest we forget! These cichlids, by and large, grow big-often very big. This becomes particularly problematic if the hobbyist has a small aquarium in which one of these brutes is to be housed. So, it should be stated from the very start that these fishes need large tanks. Some species, like *Vieja svnspila,* grow to over 14 inches in total length {TL), which makes them huge by aquarium standards. Such a fish, or better yet a pair of them, makes a truly spectacular sight in a large, private home aquarium.

Natural History

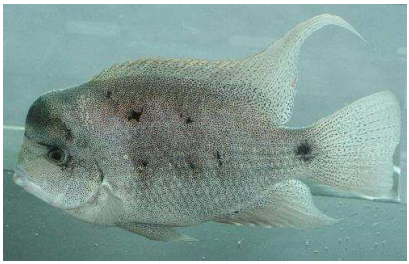
Until recently, *Vieja* was considered a synonym of *Heros* and then of *Theraps.* Only after the splitting of *Cichlasoma* {Kullander 1989) did it become valid again. Even today, it is not uncommon for hobbyist publications lo list the fishes of *Vieja* within *Cichlasoma.* More than likely, this ""laziness" is due to a poor understanding of the evolution of the nomenclature surrounding this interesting group of species.
There are at least 16 valid species within *Vieja.* Many ichthyologists agree that more are likely to be added, especially as new territories are being explored. Additionally, new DNA analysis is proving to be very effective at distinguishing new species.

Today, many isolated populations of fishes, cichlids included, are being split into new species. While controversial at best, it's hard to ignore the scientific proof that is produced by such technology.

To make matters worse, there is the hybridisation issue that we, as hobbyists especially, must deal with. It is no secret that many cichlids will hybridise, or attempt to hybridise, in captivity, and this is very true in the ponds of fish farmers where there may be a chance of flooding waters allowing unintentional mixing of species.

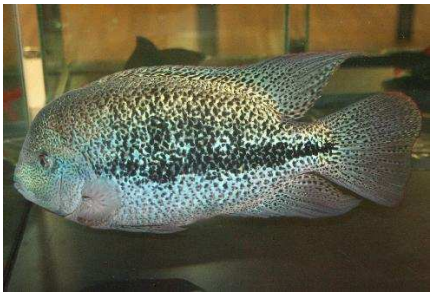
Although cichlids will rarely hybridise if given a suitable mate of the same species, when mixed with other species the drive to breed is often not diminished so the beginning of unique hybrids is often started in this very way. In fact, many of the new "flowerhorn" abominations have *Vieja synspila* blood mixed into them-presumably because of the pronounced nuchal hump that adult males are capable of developing.

Valid Species of *Vieja*



Vieja argentea (Allgayer, 1991)

Vieja bifasciata (Steindachner, 1864)
Vieja breidohri (Werner & Stawikowski, 1987)
Vieja fenestrata (Gunther, 1860)
Vieja godmanni (Gunther, 1862)
Vieja guttulata (Gunther, 1864)



Vieja hartwegi (Taylor & Miller, 1980)

Vieja heterospila (Hubbs, 1936)
Vieja intermedia (Gunther, 1862)
Vieja maculicauda (Regan, 1905)
Vieia melanura (Gunther, 1862)
Vieja microphthalma (Gunther, 1862)

Vieja regani (Miller, 1974)

Vieja synspila (Hubbs, 1935)
Vieja tuyrensis, (Meek & Hildebrand, 1913)

Vieja ufermanni Allgayer, 2002*

*Originally described as *Vieja*,
although its status is still under review.

Vieja zonata (Meek, 1905)

Natural Habitat

Most *Vieja* species prefer clear water with moderate to strong water flow. Usually found over rocky substrate, *Vieja* actively search through the rubble for tasty edibles by day and rest in the large cracks and crevices, similar to reef fishes, by night. Generally, such habitats have a slightly alkaline pH with moderate hardness. The temperature, while tropical by definition, may be on the cooler side of the tropical temperature spectrum with averages in the low to mid 70s.

Reproduction

Vieja are monogamous, bi-parentally custodial substratum spawning species (Loiselle, 1994). Adults are usually able to be sexed with relative ease. Males, generally speaking, are larger, have more elongated fins, and are more colourful. Females usually have smaller heads with a blunt, rounded appearance, shorter fins, and less colourful appearance. However, there certainly are instances where females appear more male-like than even the males themselves. This is most common in captive-bred specimens, which have often been line-bred to pronounce specific traits, such as elongated fins, brilliant colours, and a pronounced nuchal hump. The best, and most accurate, method of discerning the sex of fishes is by the examination of their genital papillae. The male's papilla (sperm duct) is longer and narrower while the female's papilla (ovipositor) is rather blunt and rounded.

When attempting to spawn an adult pair of *Vieja,* it is best to raise a group of several young fish to maturity. This approach often produces more compatible pairs with fewer chances of severe fighting. The alternative to this method is to purchase semi-adult or adult fish and attempt to pair them yourself. This is tricky, as many *Vil!ja* do not appreciate the presence of another conspecific if they have not been raised together. Once bonding is established, these bonds are often very sturdy.

Occasionally, the use of a divider may become necessary, as the males may get increasingly aggressive with the females if they are not quite ready to spawn when he is. In such instances, a divided method, either complete or incomplete, may be needed. Refer to Loiselle 1994 chapter 7 for a complete description of such divider methods.

While *Vieja* are generally considered very large fishes by aquarium standards, they have a surprisingly low fecundity rate. That is, the number

of viable eggs a female produces in one spawning session, usually in the 400 to 800 range with large broods of 1000 or more only occasionally.

Diet & Feeding

Generally, *Vieja* are classified as omnivorous consumers, That is, they consume a wide variety of both plant and animal-based foods, several *Vieja* species are active frugivores in nature, *Vieja synspi!a* (Hubbs 1935), and a close relative, *Tomocich!a tuba* (Meek 1912), for example, are known to congregate under the overhanging branches of a fruit-laden tree in anticipation of the fruit dropping into the water (Loiselle, 1994).

Aquarium specimens will do well on diets that are varied. For example, offering *Vieja* a prepared pellet feed high in plant-based material as a staple with intermittent feedings of some form of worms or insects, followed by sporadic offerings of krill or another type of shrimp will suit them just fine for long-term care in aquaria. Loiselle (1994) reports *Vieja* will accept a wide variety of leafy greens and show a particular interest in thinly sliced, blanched zucchini. When it comes to their staple diet, don't be afraid to switch it up a bit. Mix up several types of similar-sized pellets or flake together, to prevent your *Vieja* from only accepting one type of food.

Of course, the size of your *Vieja* will determine the size and type of the staple diet that you offer. Smaller specimens will need a crumble or flake diet, while medium specimens will often do well on a small to medium-sized floating pellet or granular feed. Adults will usually accept larger pellets or sinking wafers with gusto.

Space Requirements

As mentioned previously, all members of *Vieja* are basically considered very large fishes by aquarium standards. That being said, it should be basic common sense that these fishes need large aquariums. How large is large? Well, that is a difficult answer to give, but a simple suggestion is that you only house these species in the largest aquaria that both your wallet and available space afford you to own.

Being cichlids, these fishes have little problem eating and growing. In fact, many *Vieja* are used as large cichlid dither fishes for other, harder-to-keep species. Even though *Vieja* are generally very large, they are often slow-moving fishes that have a seemingly calming effect on their tankmates - unless they're breeding, then watch out!

Tankmates

Speaking of tankmates, it is a good idea to mention a few that are fairly reasonable when building a *Vieja*-themed aquarium. Of course, other large cichlids are often considered the best choices but that is not always the case. For example, if a mature pair of *V. maculicauda* is to be displayed in an aquarium of 200gallons or so, and the intent is for them to spawn successfully, then perhaps less aggressive species would be a better choice. Large Silver Dollars *(Mvleus* et al.) may be considered, as would several of the large Barbs *(Barbus* et al.). Perhaps a nice school of *Leporinus* or even *Hemiodus.* would suffice, as these species would certainly maintain a lot of movement in such a setup. It is of course logical that one would wish to keep other cichlids with such a pair, but in reality it would be better for the pair, and their prospective offspring, if you choose a different selection of tankmates.
Should one insist that their *Vieja* be housed with other cichlids, then species mirroring their mostly peaceful behavior should only be considered. Species like *.Archocentrus* and even *Astronotus* are often used with much success. Large *Uaru* easily adapt to the preferred slightly alkaline water of *Vieja* and are also an excellent choice, and since *Vieja* are very accepting of large amounts of plant matter in their diet, *Uaru* in this regard make an absolutely wonderful addition to their tank.

If you like immense fish, with bold personality and brilliant coloration, with 16 species to choose from, V*ieja* is certainly the perfect cichlid for you.

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Staeck, Wolfgang and Horst Linke. 1985. *American Cichlid 2- Large Cichlids*. Tetra Press. Germany.

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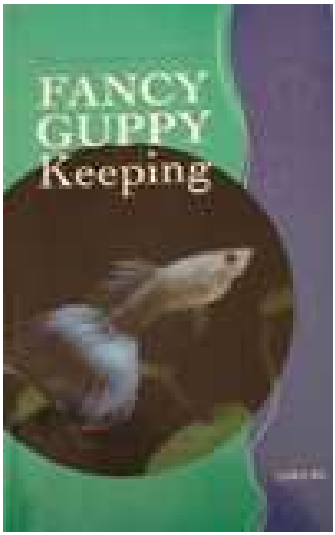
To join the ACA contact Marty Ruthkosky, ACA Membership, 43081 Bond Court, Sterling Heights. MI 48313, or visit the website http://www.cichlid.org



HAVE YOU READ?

A Comprehensive Guide to FANCY GUPPY KEEPING by Chris Ng

At Aquarama 2009, judging the Guppy Classes was made a lot more easier by the guidance given by Chris Ng, Vice-President of the Guppy Club, Singapore. As judging finished, he very generously gave me a copy of his book.

The book is divided into several chapters which are headed:
Getting to Know the Guppy, Guppy Rearing Essentials, How to Breed Guppies, Guppy Showcase, Guppy Traits, Articles, Singapore Judging Criteria and Standards.

Whilst the contents of most chapters can be predicted, within each chapter there are many interesting digressions; for instance, in the first chapter there is a formula for naming a variety – almost literally naming of the parts!

There are five pages devoted to Diseases but this is happily balanced by seven pages of very healthy-looking varieties in the Guppy Showcase.

Probably of most interest to the serious Guppy-keeper will be the information contained in Guppy Traits (Fin development and constructive genetics) and the very detailed coverage of Judging criteria and standards.

Elsewhere, two articles describe commercial Guppy production at a typical Guppy farm and at the Guppy Centre in Singapore.

Regardless of your depth of interest in Guppies, you will find plenty of thought-provoking and instructive information in this book. On a practical note, the final page of the book is an Order Form – and you can obtain a copy of the book (S$38.00 plus 20% p&p) from:

Guppy Club Singapore, 14B Harlyn Road, Singapore 299456
Email: sgguppy@gmail.com

KNOW YOUR FISH

Sawbwa resplendens

Family: Cyprinidae
Common Name: Rummynose Rasbora
Distribution: Lake Inle and surrounding waters in Shan State, eastern Myanmar
Description: The symmetrically-contoured body has a steel-blue sheen especially under sympathetic side-lighting, whilst the smallness of the scales make the fish look 'naked'. The most distinguishing features are, in the male, the carmine-coloured head and twin lobes of the caudal fin. Sadly, like females of most other species, the female *Sawbwa* lacks the colours of the male and can be quite a drab brown.

It makes a good aquarium companion for other 'new' species such as *Danio margaritatus, Danio erythromicron* and any of the almost ubiquitous *Yunnanilus* species. It will tolerate medium-hard water and, as it comes from sluggish waters, an over-powerful filter may not be a good idea. Like all good-looking males, showing off to the females and quarrelling with other male rivals is a regular thing; it may be best to have several females to each male to keep things calm.

According to reports, the smallest of foods is required for the fry (Rotifers etc) before they can take newly-hatched *Artemia*.

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Dave Hulse,
Tetra Information Centre

Electrolytes or salts are a vital part of the body fluids of any animal. The majority of fishes have a body salt concentration different to that of their surrounding environment. Bony marine fish have a salt concentration much lower than the surrounding seawater, and cartilaginous marine fish (sharks, skates and rays) boost their osmotic potential using nitrogenous substances. Freshwater fish have a higher salt concentration than the water. Goldfish are no exception, they have a body salt concentration equivalent to about 0.9% salt or roughly 1 ½ oz of salt per gallon of water.

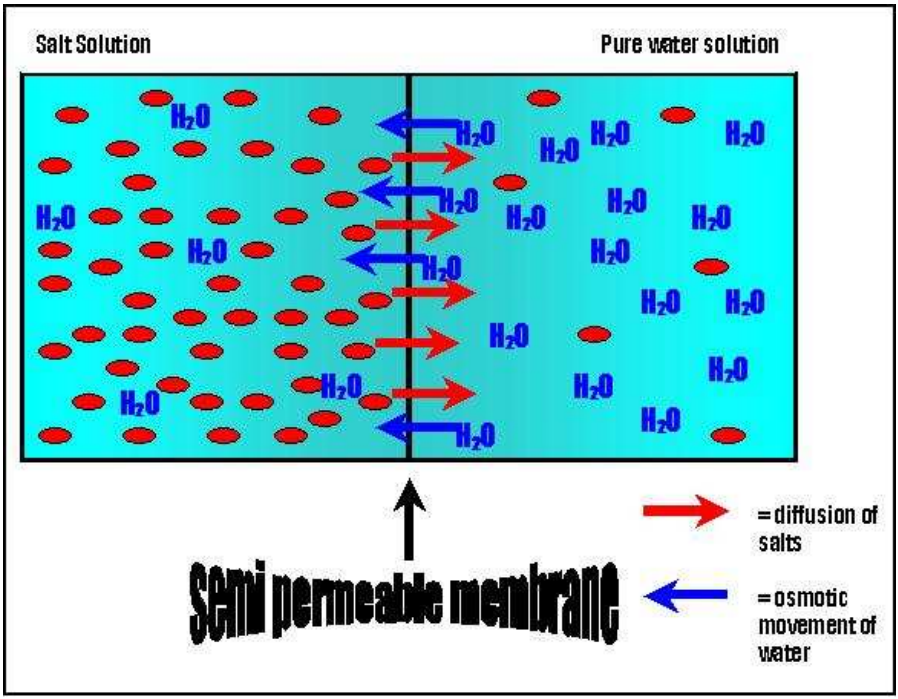
Before we can see the problem this poses for the goldfish we must look at two important biological processes called osmosis and diffusion.

Osmosis and Diffusion

Diffusion is the movement of a solute (a substance dissolved in water - e.g. salt) across a semi-permeable membrane from a region of high concentration to low concentration. Thus the sodium and chloride ions move across the membrane to even out the two concentrations.
Osmosis is a similar principle but is fundamentally different. Osmosis is defined as the movement of a solvent – in this case water - across a semi-permeable membrane *to* a region of high solute concentration *from* a more diluted region of low solute concentration.

Let's look at this in some detail:

Imagine a solution of strong salt water and another solution of much weaker saltwater. These two solutions are separated by a semi-permeable membrane. It allows the passage of certain ions but not others. Thus to even out the two solutions the *water* molecules will pass across the membrane *from* the weaker solution *to* the stronger solution until the salt concentration of the two solutions is equal. This process is osmosis. At the same time the salt ions diffuse from the high concentration solution across the membrane to the more dilute solution. Thus the two solutions will eventually have the same salt concentration.



The Osmoregulation system

Now we can take our two imaginary solutions and say the weaker solution is the pond or tank water the goldfish is swimming in and the stronger solution represents the body fluids. The body surface of the fish is largely impermeable to salt ion and water movement thanks to tough waterproofing from the scales and the skin. However the gills and the lining of the digestive tract are highly permeable by nature. They allow massive uptake of water and loss of salt ions. This is the *Osmotic problem* faced by all freshwater fish, freshwater is constantly passing into them by osmosis and they are losing vital body salts by diffusion. Osmoregulation is the group of systems that counteract this problem.

The constant influx of water at the gills and to a lesser extent over the gut wall, is counteracted by the kidney of the fish producing a large quantity of very dilute urine. On average a goldfish will produce roughly 5mls of urine per kilo of fish weight per hour, although some freshwater fish may produce up to 12.5 ml/kg/hour!

The diffusional loss of salt ions is counteracted by the fish actively transporting salt ions from the water into the body fluids. Active transport is a cellular process, which consumes energy.

These ions are also swapped for ammonia, hydrogen and bicarbonate ions, which are all toxic end products of the fish's metabolisms. Also the kidneys reabsorb some salt ions from the urine to prevent further waste. So most of the salt ions required are actively transported into the fish, some are swapped for unwanted metabolic waste products and a small proportion are reabsorbed from the urine.

What can affect the osmoregulation system?

An ulcer or surface wound poses many problems to a goldfish. Not only does it allow the entry of pathogens into the body but it is also a breach in the waterproofing of a freshwater fish.

Thus water will be osmotically drawn into the body, which could dangerously dilute the body fluids and hamper physiological function. This type of surface wound is the equivalent to a hole in the wall of a submarine!

To prevent this dilution of body fluids, the kidney increases its activity to pump out the extra water and maintain the correct salt concentration in the fish. This elevated kidney function cannot be sustained indefinitely, so unless the ulcer heals quickly and the water influx ceases, kidney damage and infection is likely.

In terminal cases, kidney failure results and the fish begins to swell as the incoming water is not pumped out. Finally the fish's scales protrude making the fish resemble a pinecone.
(A condition traditionally termed 'dropsy').

This sequence of events highlights the importance of rapid healing of ulcerated lesions on the surface of the goldfish.

Unlike human skin, the surface layers of a fish's skin are living and can thus re-grow and heal quickly, providing optimal water quality and nutrition is provided. The serious goldfish keeper would be well advised to use a topical wound treatment to clean and seal the wound to promote the healing process. Another instance when the osmoregulation system function is hindered is during a kidney infection.

Bacterial infections frequently involve the kidneys in severe cases the removal of excess water can no longer be performed by the infected kidney and again fluid accumulation and dropsy results.

How can salting the water help the osmoregulation system?

A small amount of salt added to the pond or tank water will reduce the osmotic potential between the fish's body fluids and the pond water. Remember the body fluids of the fish are *roughly* equivalent to a salt strength conferred by a 9 g/l salt solution. Thus adding 3 g/l (1/2 oz per gallon / 0.3 % / 3 ppt), of salt to the water will reduce water influx by up to a third! This is a major help to a fish with even a small body wound or ulcer. Fish suffering from handling stress, parasitic disease, gill damage or certain water quality problems will find this level of salting very beneficial. Healthy goldfish should not be maintained in a permanent low level of salt, they are after all, freshwater fish not brackish species. Also overuse of salt can select for resistance among parasites thereby rendering a salt's use as a disease treatment ineffective.

How to add salt:

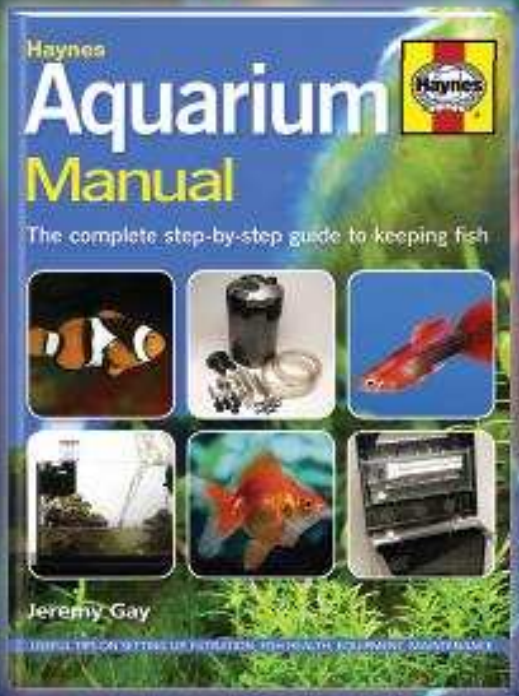
Always use pure sodium chloride, available from your local aquatic store. Do not use sea salt or iodised table salt. The latter is toxic to fish and the former contains many other ions which will complicate the ion fluxes at the gills, is likely to raise water pH and has a significantly reduced anti-parasitic action.

Ideally the affected fish will be isolated and treated in a separate, filtered treatment tank of known volume. The required amount of salt can then be weighed out and fully dissolved in a bucket of water before being added to the tank. Never allow un-dissolved salt crystals into the water as they may become lodged in the gills and cause significant burning. The salt can be added at half dose on the first day and raised to full dose on day two.

Maintain the 3 g/l salt level until wounds appear well healed over or dropsy levels subside.

Many aquatic plants are intolerant of salt if it is added to the main pond or tank: biofilter bacteria are unaffected by the slight salinity increase.

Fish & Tips



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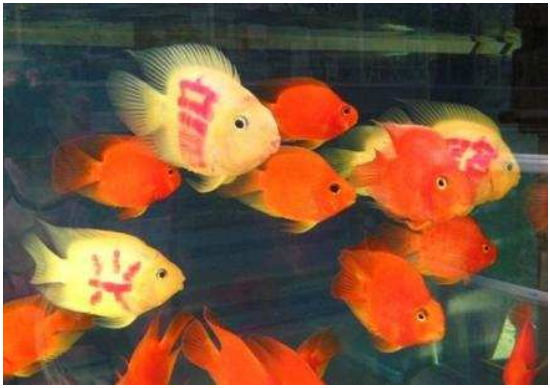

Pet shops in a city in southwest China are offering fish tattooed with patterns and lucky characters intended to bring their owners good fortune and happiness.

The Qingshiqiao pet market in Chengdu sells a variety of ornamental "fortune fish" decorated with flowers, rainbows and characters, the Huaxi Metropolis Daily reported Thursday.

“Tropical Parrot Fish are usually used for tattooing, often with the Chinese characters meaning ‘May your business boom,’" the regional newspaper said on its website. A dealer said lasers were used to tattoo the fish.

An ordinary parrot fish sells for just 10 yuan (1.5 dollars) while a tattooed one goes for at least 25 yuan. A set of four fish tattooed with the characters for "Good Fortune," "Luck," "Long Life," and "Happiness" can cost 120 yuan, the paper said.

Tattooed fish first appeared on the market in 2005 but only became popular in the past year or two. While some shoppers interviewed by the paper said the idea of tattooed fish was novel, others thought it was cruel.

Fisheries expert Zhang Zhicheng said no one had studied how the tattoos would affect the fish. "To use a laser to tattoo will surely affect the fish. It's like tattooing a human being's body, it breaks the physiological balance of the fish and damages the skin's protective surface," Zhang was quoted as saying.

Pets have become more popular in China in recent years with the country's increasing prosperity.

YOU DON'T HAVE TO GIVE UP KEEPING FISH DURING A CREDIT CRUNCH

Over the last 12 months the Bulletin has been dealing with what the credit crunch has had on the effect within our hobby. This being the last on this subject, I have to thank Eric Franklin for this article on the possibility of turning to Coldwater Fishkeeping, rather than switching of the heat and giving up fish keeping all together. *Editor.*

Fish Keeping in the Recession

Mr Brown's inept management of the economy is even affecting our hobby. People are worrying about the cost of doing things that they used to take for granted.

For instance just take travelling to Fish Shows - with petrol being so expensive – plus the running of fish house heating, lighting etc.
These are becoming increasingly more a strain on the household budget and the tropical fish-house has to go.

With heating being the most costly cash-guzzler of all (even with good insulation), 'tropical' can mean 'expensive'. But I can help you here, why not convert to a coldwater fish-house? It will save you a fortune on running heaters or space heating. You can also say you are doing your bit for global warming by using less electricity!

There are some very nice smaller coldwater fish that will survive and breed in an unheated Fish-house. As long as the fish-house is insulated - which any ex-tropical fish house would surely be - it will not get too hot, even in the summer or too cold in the winter.

"So why not go Cold?" Turn off the heaters and get yourself some coldwater fish, and start saving money straightaway!

Check out the Bitterlings: *Rhodeus amarus,* R. *ocellatus,* and *R.sericeus* are just three from this wonderful family of fish. Note: You are requird to hold a DEFRA Licence to keep these species.

The White Cloud Mountain Minnow, *Tanichthys albonubes,* often kept in tropical aquariums lives better in coldwater aquaria.

Those who like the larger fish, try the Warmouth, *Chaenobryttus (Lepomis) gulosus* whose size and colour can compete with any South American Cichlid; another must are the smaller varieties of Sun Bass. Even some Danios will tolerate cold.

You can even have smaller tanks with pretty fish, plants will also grow quite happy, Java Moss, Hornwort, Sagittaria, Potamogeton and many more.

If you have some larger aquaria why not try Goldfish, there are dozens of varieties to choose from, just check out Star Fisheries web site, it's a must for the coldwater fish keeper

If I haven't convinced you to go coldwater, then perhaps you could try solar energy, photo electric panels on the roof of your Fishouse that produce electricity that is stored in batteries Use these to run your heating and lights ect. If you don't fancy any of these then you should change your vote at the next Gneral Election!

Great Fishkeeping,

Eric Franklin

FESTIVAL OF FISHKEEPING 2009 REPORT

Considering this year's financial climate (the weather was far better!) the response to the Festival was excellent - not only was there an extra component in the shape of a Handicraft Marquee, but a late flood of residents came in too.

It appears that the Festival Team is now so practised that they can set up the Festival in almost no time flat as strolling around the site on the Friday evening revealed very little 'last minute' panics.

On the competitive side of things, entries looked well set, although the proposed Betta Show was decided against owing to last year's poor support. But a 'good news' event was the Society Furnished Competition which not only enjoyed the traditional 10 entries but also benefited both by the provision of live plants and a huge cast-list of Judges (872 of them!) over the weekend. The quality of the furnishings was superb with all manner of design ideas.

The Festival 'Techies' very appropriately furnished their tank using various coloured tie-wraps as plants whilst the three colours of the gravel reflected the colours of the mains wiring! Jewels of the Caribbean was a very popular theme chosen by the Koi Group, but it wasn't enough to get past Hounslow who took top spot with a more traditionally-furnished entry.

Next year's 'Furnished' -thanks to Tetra's generous encouragement - looks set to be expanded to include an individual category (entries limited to residents only) thanks to the popularity of this event.

Most people had come prepared for a TDC walk-over but whilst this was duly accomplished in the 'big' events - The British Open and the 'Supreme' - honours in the Festival Open Show, the Killifish and the Catfish Shows were more broadly distributed, as TDC sportingly refrained from filling the showbenches in these events.

Among the Specialist Shows, the Discus again attracted admiration from visitors and other competitors alike. These statuesque fish may not have the activity of some of the other 'trops' but their dignified demeanour and, of course, fabulous colours more than made up for their apparent immobility. Congratulations to Tony Vaughan, making it a double by repeating his win from last year.

The Goldfish Society of Great Britain reported an immense interest in their Open Show, especially from visitors and managed to pick up several new members over the weekend.

The excellently-staged Koi Festival again drew much attention with excellent fish on view. A couple of 'Koi Girls' actually sneaked away from duty to enter a Society Furnished Aquarium and had the audacity to walk off with 2nd Place!

Within the several marquee-enclosed 'Halls,' each 'aisle' had a theme whether it was Discus, Koi, Goldfish, Trade and Craft Stands or Competitive Fish Show areas. The centrally-situated refreshment area made a very convenient resting place!

A very busy section contained the 'home-bred' fishes and there was a constant crowd of viewers and wouldbe buyers. Increased in size this year, it looks as if it'll be necessary to expand the space again next year!

But the Festival wouldn't be the popular event it is without the residents. Early Friday evening, the recurring topic of conversation was "Great to see you again, how've you been, how are your fish doing?" just going to prove that to some the social scene is just as important as the fish on the bench.

Saturday evening saw the traditional Children's Fancy Dress and, although there was only one entrant in the Adult version, one could not deny her enthusiasm! The 'social whirl' rounded off each day's fishy activities and the 'ABBA Girls' and 'Rod Stewart' were warmly applauded by their respective audiences.

Thanks to all for coming, whether you were an exhibitor, resident, Judge, Trade representative, Guest Speaker, Day Visitor or Steward - you made it all worthwhile - and very many thanks to the Show Organisers, Manager and Staff of Mill Rythe for hosting the best aquatic Festival of the year - and, of course, to Joe and Grace who again played a blinder.

See you in 2010 - you'd be wise not to miss it!

2009 SUPREME CHAMPIONSHIP sponsored by Tetra

SUPREME CHAMPS - (from left to right)
Rupert Bridges (Tetra), Chris Arnold (Portsmouth A.S., 2nd Place)
Dave Clarke (TDC, Derby & D.A.S. 1st, 3rd), Terry Hewitt (Bracknell A.S., 4th)
Tim Edwards (TDC, Derby & D.A.S., 5th and 6th), Dick Mills, (President ,FBAS)

1st Place	*Vieja hartwegi*	TDC, Derby & D.A.S.
2nd Place	*Panaque suttonorum*	Chris Arnold, Portsmouth A.S.
3rd Place	*Eleotris vittata*	TDC, Derby & D.A.S.
4th Place	*Yasuhikotakia sidthimunki*	Terry Hewitt, Bracknell A.S.
5th Place	*Yunnanilus cruciatus*	TDC, Derby & D.A.S.
6th Place	*Amphilophus ribertsoni*	TDC, Derby & D.A.S.

2009 BRITISH OPEN CHAMPIONSHIP sponsored by Tetra

1st Place
Nothobranchius eggersi Blue
TDC, Derby & D.A.S.

2nd Place	*Amphilophus robertsoni*	TDC, Derby & D.A.S.
3rd Place	*Synodontis shoutendeni*	John Egan, Port Talbot A.S.
4th Place	*Yunnanilus cruciatus*	TDC, Derby & D.A.S.
5th Place	*Platystacus cotylephorus*	Allan Finnigan, Leicester A.S.
6th Place	*Sawbwa resplendens*	Ben Sayers, Mid-Sussex A.S.

FESTIVAL OPEN SHOW

Best in Show
Yunnanilus cruciatus
S & D Edwards, Port Talbot A.S.

Reserve	Odessa Barb	Ron Baldock, Strood A.S.
Reserve	Catfish	Allan Finnigan, Leicester A.S.

Trophy Class Ca	*Hemigramus bleheri*	Allan Finnigan, Leicester A.S.
Trophy Class Ha	*Aspidoras pulchiradiatus*	M.Kirkham, C.S.G.

BEST PAIR
Nothobranchius melanospilus Ellis Eyres, B.K.A.

BEST BREEDER
Nothobranchius eggersi Blue Ellis Eyres, B.K.A.

JUNIOR CLASSES

Jack Finnigan,
Leicester A.S.

SHANGHAI CLASS

Egglayers - *Nothobranchius eggersi* 'Kigongo'
Ellis Eyres, B.K.A.
Livebearers - *Xiphophorus helleri*
Peter Quested, Hounslow & D.A.S.

TETRA SUPREME PAIRS

1st Place	*Phallichthys fairweatheri*	TDC, Derby & D.A.S.
2nd Place	*Yunnanilus cruciatus*	TDC, Derby & D.A.S.
3rd Place	*Xiphophorus clemenciae*	TDC, Derby & D.A.S.
4th Place	*Danio margaritatus*	Roy Chapman, Southend, L & D.A.S.
5th Place	*Fundulopanchax marmoratus*	TDC, Derby & D.A.S.
6th Place	*Nothobranchius eggersi* Blue	TDC, Derby & D.A.S.

TETRA SUPREME BREEDERS

1st Place	*Synodontis petricola*	TDC, Derby & D.A.S.
2nd Place	*Brachrhaphis hartwegi*	John Smith, Mid-Sussex A.S.
3rd Place	*Phallichthys quadropunctatus*	TDC, Derby & D.A.S.
4th Place	*Phallichthys fairweatheri*	TDC, Derby & D.A.S.
5th Place	*Xenophallus umbratilis*	TDC, Derby & D.A.S.
6th Place	*Fundulopanchax marmoratus* 'Gold'	TDC, Derby & D.A.S.

GSGB GOLDFISH SHOW

Best in Show	London Shubunkin	Don Smith, GSGB
Best Single Breeder	Bubble-Eye	Michael Pepper, GSGB

KOI FESTIVAL sponsored by Tetra and RO-MAN

Grand Champion Size 6 Sanke Carl Davison

UK DISCUS SHOW sponsored by Tetra and RO-MAN

Hobbyist Grand Champion, Open Grand Champion Tony Vaughan

CATFISH SHOW

Best in Show *Corydoras pulcher*
Mick Kirkham, C.S.G.

Reserve *Brochis splendens*
Reserve *Aspidoras pulchiradiata* Mick Kirkham, C.S.G.

KILLIFISH SHOW sponsored by RO-MAN

Best in Show *Jordanella floridae*

Peter Quested, Hounslow & D.A.S.

My thanks to all the exhibitors who participated in the Killifish Show. I look forward to seeing you all next year.
Steve Jones

SOCIETY FURNISHED AQUARIUM sponsored by Tetra

1st Place - Hounslow & D.A.S.
2nd Place - Koi Group
3rd Place - Island Fishkeepers
4th Place - U.K.A.P.S.

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FBAS Festival Shows over many years

ORGANISER'S AWARD

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for combined cumulative Place points in the 'Supreme' and 'British Open' events.

FBAS GOLD BROOCH WINNERS

Allan Best, Strood A.S.

Terry Hewitt, Bracknell A.S.

2009 SUPREME CHAMPION

Vieja hartwegi
TDC, Derby & D.A.S.

2nd Place *Panaque suttonorum*
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3rd Place - *Eleotris vittata*
TDC, Derby & D.A.S.

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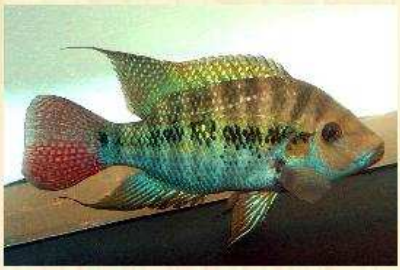
5th Place *Yunnanilus cruciatus*
TDC, Derby & D.A.S.



6th Place *Amphilophus robertsoni*
TDC, Derby & D.A.S.

BRITISH OPEN CHAMPION

Nothobranchius eggersi Blue
TDC, Derby & D.A.S.

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Ben Sayers, Mid-Sussex A.S.

FESTIVAL OPEN SHOW

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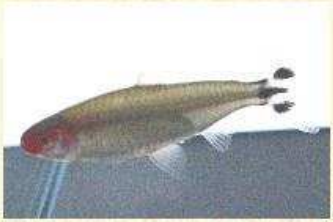
Steve & Debbie Edwards, Port Talbot A.S.

Reserve - Odessa Barb
Ron Baldock, Strood A.S.

Reserve - Catfish
Allan Finnigan, Leicester A.S.



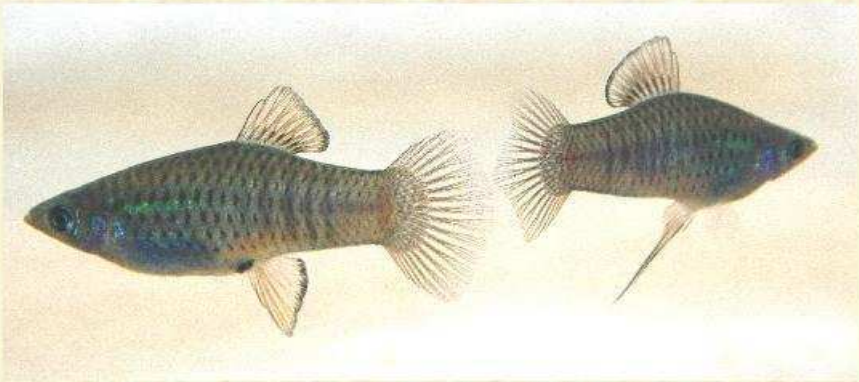
Trophy Class Ca
Hemigramus bleheri
Allan Finnigan, Leicester A.S.

Trophy Class Ha
Aspidoras pulchiradiatus
M.Kirkham, C.S.G.

BEST PAIR -
Nothobranchius melanospilus
Ellis Eyres, B.K.A.

BEST BREEDERS -
Nothobranchius eggersi Blue
Ellis Eyres, B.K.A.

TETRA BEST PAIRS FINAL

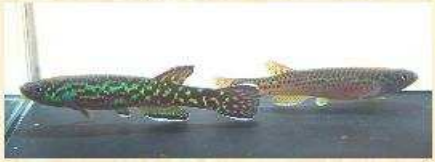


Best Pair - *Phallichthys fairweatheri* TDC, Derby & D.A.S.

2nd Place *Yunnanilus cruciatus*
TDC, Derby & D.A.S.

3rd Place *Xiphophorus clemenciae*
TDC, Derby & D.A.S.

4th Place *Danio margaritatus*
Roy Chapman, Southend, L & D.A.S.

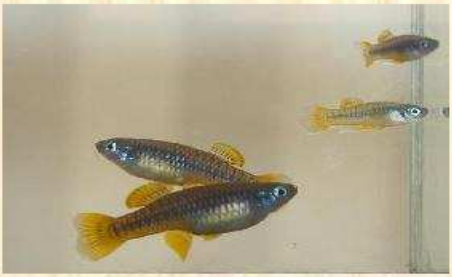


5th Place *Fundulopanchax marmoratus*
TDC, Derby & D.A.S.

6th Place *Nothobranchius eggersi* Blue
TDC, Derby & D.A.S.

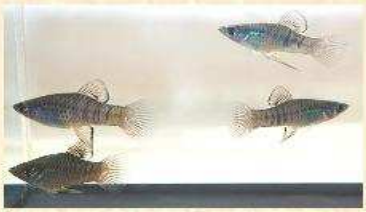
TETRA BEST BREEDERS FINAL

Best Breeder - *Synodontis petricola*
TDC, Derby & D.A.S.



2nd Place - *Brachyrhaphis hartwegi*
John Smith, Mid-Sussex A.S.

3rd Place - *Phallichthys quadripunctatus*
TDC, Derby & D.A.S.



4th - *Phallichthys fairweatheri*
TDC, Derby & D.A.S.

5th - *Xenophallus umbratilis*
TDC, Derby & D.A.S.

6th - *Fundulopanchax marmoratus*
TDC, Derby & D.A.S.

GSGB GOLDFISH SHOW

Best in Show
London Shubunkin
Don Smith, GSGB

Best Single Breeder
Bubble-Eye
Michael Pepper

KOI FESTIVAL

Grand Champion
Size 6 Sanke
Carl Davison

UK DISCUS SHOW

Hustinx Wild Discus -
Tony Vaughan, Ireland

KILLIFISH SHOW

Best in Show - *Jordanella floridae*
Peter Quested, Hounslow & D.A.S.

CATFISH SHOW

Best in Show
Corydoras pulcher Mick Kirkham, C.S.G.















biOrb
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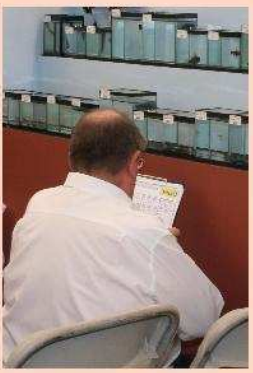
YOU COULD WIN THIS!


Tetra Pond Koi


FESTIVAL


Viviparous.org.uk


British Open Final




U.K. Discus Association
Open & Championship Show
U.K. Discus Association
Open & Championship Show


FESTIVAL OF FIS


FESTIVAL OF FISHKEEPING


Tetra

Malcolm Goss reflects:

For many years, Kodachrome 35mm slide film was the favourite mainstay for aquarists' photos, projecting them on to a large screen and illustrating talks at our local Fish Club.

Kodak first introduced Kodachrome in 1935, but on 22nd June this year, after 74 years, it was ending production and releasing the last ever batch of this milestone film in photography.

Kodachrome was the first film that made colour photography practicable and affordable for the ordinary amateur. Professionals, as well as you and I, used the film with super results when used in our cameras correctly. The arrival of the Digital Age with more-convenient-to-use products and cameras has seen the erosion of its sales.

In the camera, Kodachrome is a film composed of three suitably filtered layers. The "alchemy" takes place in the processing laboratory when the silver-halide negatives are reversed and coupled with coloured dyes, and the silver washed away, leaving richly saturated and stable colour transparencies.

Exposed film had to be posted back to Kodak - in a Kodak-manufactured envelope - for processing and slide mounting before being used with a projector and shown on a screen. However it often would take between 7 and 10 days for your slides to return – a period that often become quite nerve-racking, "Have they come out perfect or not?"

The digital revolution meant there is only one laboratory in the world - Dwayne's Photo based in Parsons, Kansas - that is still able to process Kodachrome film.

Why not take time to dust down your old projector and sort through those many slides you have, and once again enjoy those really bright colours, those reds, blues and greens of our fish and plants that made us all want to take that really 'one-off' picture that, once seen, will never be forgotten?

WILL THEY SPOT US?

O.K., so everyone in Fishkeeping recognises the FBAS logo but what about the rest of the world?

Well, a whole lot of people, by the time Christmas is over, may well have found themselves faced with identifying it as a consequence of playing **Eye-dentity**, the latest Boardgame.

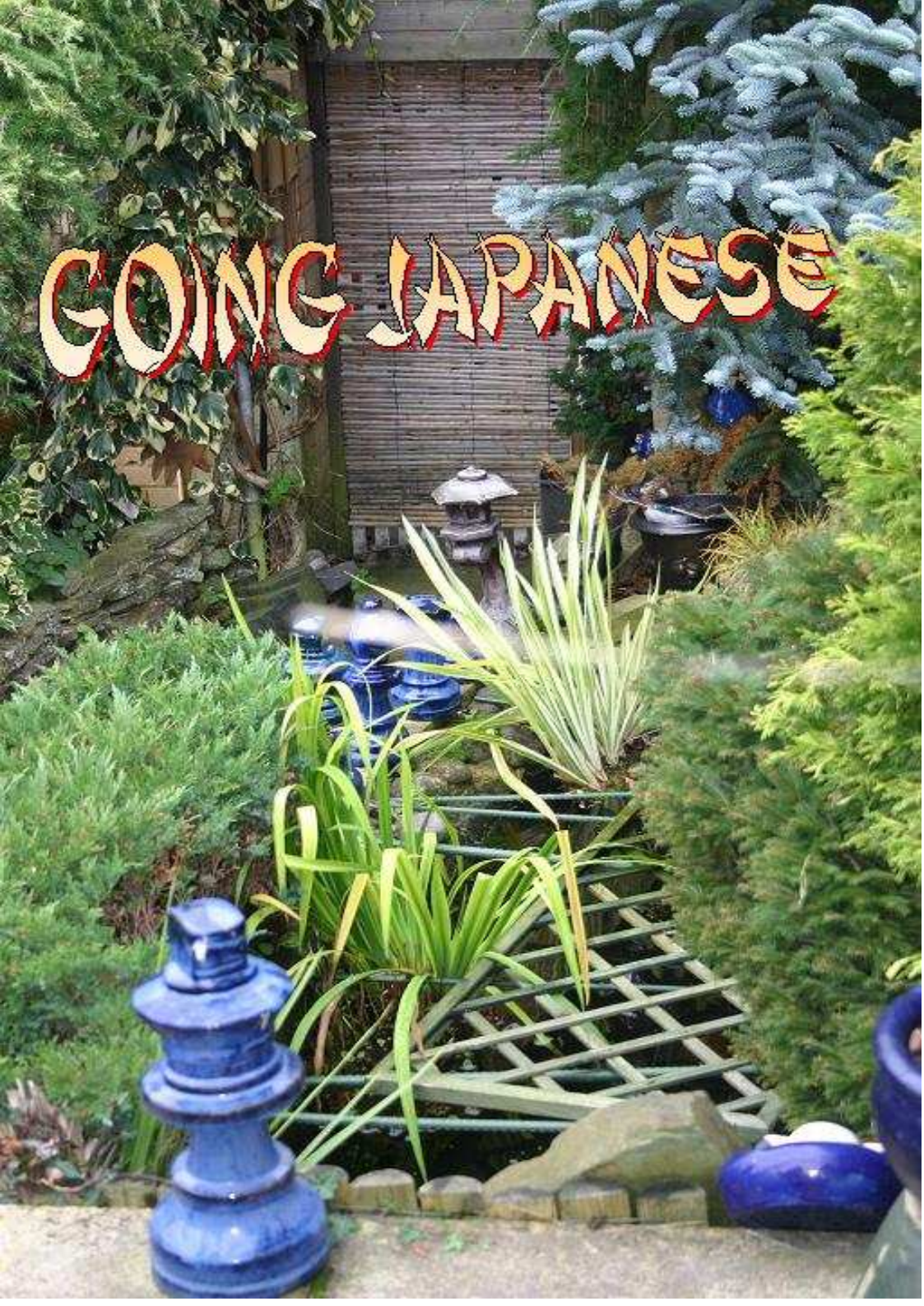
A few months ago, Xanadu, the creators of the game (in which players score points and advance around the board by correctly identifying - geddit? - well-known Company logos), contacted the Federation to see if we would allow our logo to be incorporated.

Naturally enough we said “yes!”

Launched at the latter end of October, Eye-dentity retails at around £24.95 and is available from all good toy outlets and stores.

You can get full information about this new game (and try it out) at:

www.xanadugames.co.uk


GONG JAPANESE

Many pond owners like to give their ponds that Japanese look, more so If they keep Koi in the pond.

Often this is created by adding a 'Far Eastern statue' in some form or another.

However Ann Dorrel, who lives in a small village on the Buckinghamshire - Hertfordshire borders, has spread this theme all over her garden.

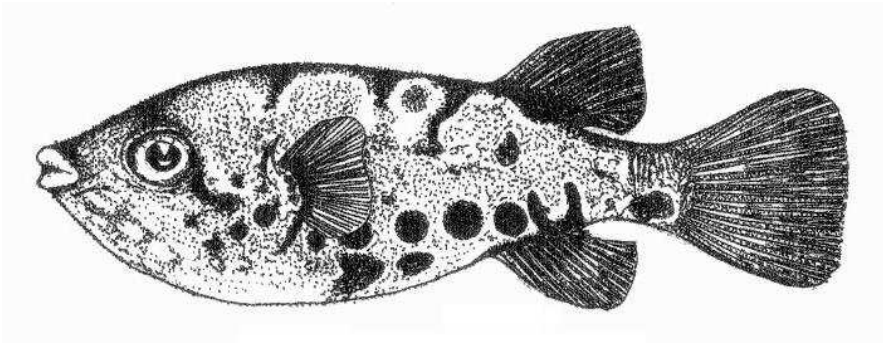
This has been built up over many years with many items that give the whole garden that Japanese look, including Bonsai Trees, even though these are brought inside during the winter months.

Ann's garden is all-concrete, with steps and terraces that include her small pond that is home to four Koi of about 6 to 8 Inches in length. A pump feeds a small waterfall via a bio-filter that is gravity fed.

It was about a year ago that Ann was involved in a car accident; it has left her with not much mobility and she is now grateful there is no digging to do, and only has to ask me to go round when both the pond and her plants need some attention.

Ann enjoys sitting by her patio doors with a clear view of what I am sure you will agree is a garden with a truly Japanese look.

WHITE PAPER



Tetraodon fluviatilis (Hamilton)

by A K. Mohammad Mohsin & Mohd Azmi Ambak

The Suborder *Tetraodontoidei* (Gymnodontes) known to us as Pufferfish has one or two fused teeth in each jaw and an absence of pelvic fins. Described as small or moderate-sized fishes which can easily be recognised by their scaleless bodies and parrot-like mouth.

Most members within this group can inflate their bodies until the whole fish is nearly spherical. They often make a peculiar sound while inflating which is done by engulfing water or air. When releasing these fish from the hand into the water they swim away with their belly up and finally release the air and re-assume the normal body shape. The inflation is a protective measure from attack.

Some parts of the body - ovary, liver, intestine and skirt - may contain neurotoxin, which is about 13 times stronger than potassium cyanide. Puffer fish are sold at a very high price because the presence of this poisonous muscle tissue is rare. Japanese, Chinese and Koreans know how to avoid this tissue.

Female Pufferfish, depending on size and species, may produce between 300,000 arid 500,000 eggs (Bardach 1972). *Tetraodon fluviati!is* have been collected from the Perak River near Kuala Kangsar, Pahang and in many other tributaries in the region

Mohsin & Ambak state, *T fluviatilis* range in size from 75 -90mm in total length. In some size sheets produced by the organised hobby as a help to judging these fish when seen on the showbench, the size stated is up to 170mm In length.

The dorsal side of the head, back arid tall region are olive green There is one black spot, about the size of the eye, surrounded by a white area behind the pectoral fin. The sides of the body are marked with islands of irregular markings. Caudal fin is black with white edges. The rest of the fins are hyaline. Lateral line narrow but conspicuous, but assumes the shape of a number three. One arm of the number surrounds the eye and the other the pectoral fin.

When I personally kept this species I found it Just loved eating snails and for those of us hobbyists that are over run by snails what a blessing this unusual fish is

Ref: Freshwater Fishes of Peninsular Malaysia.
Edited by M. Goss 29/10/09

SHOW & EVENTS DIARY

(full details can be found on FBAS website www.fbas.co.uk)

FBAS ANNUAL GENERAL MEETING (tel:01424 431016)	5th December
BLA MIDLAND CHARITY AUCTION	6th December
FBAS FESTIVE DINNER, Hayling Island	12th December

2010

CATFISH STUDY GROUP CHRISTMAS MEETING	13th December
MID-SUSSEX A.S. OPEN SHOW	11th April
GROCKLEMANIA	18-21 June
BRISTOL T.F.C	26th June
HOUNSLOW & D.A.S.	18th September