



BULLETIN March 2013 Contents

EDITORIAL	4
DEFRA PLANTS WARNING	5
OUT & ABOUT: MILE HIGH AQUARIUMS	12
COELACANTH – THE LIVING FOSSIL	17
ASK US	19
THE GREEN CORNER- A HOLIDAY DISCOVERY IN PHUKET	20
IT'S GOT ME IN ALL OF A WOBBLE	23
LIGHTING AT AQUATICS LIVE!	25
IT'S AN OPEN SHOW JIM, BUT NOT AS WE KNOW IT	28
IN MEMORIAM	32
THE EUROPEAN BITTERLING	33
A STRANGER IN PARADISE	35
FESTIVAL OF FISHKEEPING	37
SHOWS & EVENTS	41

Cover photo: Clive Walker's Fish House in winter -

do you really want to go out on a night like this?

Opinions expressed in any article remain those of the author and are not necessarily endorsed by this publication

Produced for FBAS website by Dick Mills



www.fbas.co.uk

EDITORIAL

We look forward to another year with anticipation, enthusiasm and maybe a little trepidation.

Sadly, 2013 kicked off with the loss of two aquarists well-known to Societies in southern England, and our sympathies are with their families.

Some people too have had more than their fair share of bad weather with the flooding in many areas – one wonders how many Goldfish and Koi made their escape from their ponds to pastures new as a result of their ponds being submerged; and you thought a pond net was meant to keep Herons out and not fish in!



I suppose it's an ill wind, as they say. Looking for a source of soft water, the penny dropped and I lost no time in shovelling up snow – just don't ask me how many buckets of snow it takes to make a gallon of water!

Malcolm Goss, 25 The Gowers, Chestnut Lane, Amersham, Buckinghamshire HP6 6ER

tel: 01494 722786 e-mail: malcolmgoss@tiscali.co.uk



and help us prevent the spread of invasive aquatic plants













Why should you Be Plant Wise?

Ponds can turn a garden from good to great. They create a wonderful feature to be enjoyed all year round and are often a haven for wildlife. However, if they are not cared for properly some common pond plants can take over your pond. They can also become established in the wild, where they can smother our native plants, clog our waterways, exacerbate flooding and remove oxygen from the water, which can harm fish.

As well as being an important environmental concern, they also cost money. The annual cost of controlling just three invasive aquatic plants species in Great Britain is more than £3m.

Pond owners, gardeners and anglers can unknowingly assist the spread of aquatic plants into our countryside. These plants can rapidly become major problems. For example, one of the plants described in this leaflet, floating pennywort, can grow at a rate of 20cm a day.

Managing your pond responsibly

Whatever plants you use you'll need to manage your pond. That's because ponds, like gardens, must be maintained and cared for to ensure they don't become overgrown. But remember: when it's time to thin out your pond, always dispose of old plants and pond material responsibly by composting it or putting it in your green waste bin. Don't give unwanted plants to friends and neighbours. You will just be spreading the problem and harming their ponds.



By doing something very simple, such as composting excess pond plants carefully, we can all help the environment and reduce costs.

PLASSI PLASSI IN THREE SIMPLE STEPS

KNDW WHAT YOU GROW

Be plant wise to the threat of invasive plants, which can take over your pond and damage the environment. Ask for help picking the right plants for the size and purpose of your pond and ask how to care for them properly. Overleaf we detail some of the plants that can cause the most problems.

STOP THE SPREAD

COMPOST WITH CARE

Be plant wise by not moving pond plants around. Even tiny plant fragments can lead to massive problems, so be careful when maintaining your pond and disposing of waste water. Any waste water should be emptied away from streams, rivers, ponds, lakes and lochs, or drains that flow into them. You could use the excess water on the lawn or to water plants in your garden.

disposing of aquatic plants responsibly. Don't dump them in the wild; this could be illegal and the plants could damage the environment. You should always dispose of plants by composting them or using your local green waste disposal system. Never place them in a nearby pond or waterway, where they can quickly become a problem. Before disposing of the plants leave them for a few hours beside the water, so that pond creatures can return to the water.

Be plant wise by

Plants can be pulled out on a regular basis, but big clearouts should be saved for autumn when they will cause the least disturbance to your pond.

A quick guide to five invasive aquatic plants

Here are five examples of invasive aquatic plants that you might find in your pond. If you do discover an invasive species, don't panic - just Be Plant Wise and remember to dispose of the plant by composting it.

New Zealand pigmyweed, also known as Australian swamp stonecrop

[Crassula helmsii - also sold incorrectly as Crassula recurva, Tillaea recurva and Tillaea helmsii]

Recognisable when growing at the water's edge by its narrow, fleshy leaves. However, it grows both in and under the water as well as on nearby land.

The weed's main danger lies in its ability to form very dense mats which reduce light levels and displace native plants. It can regenerate from tiny fragments and, as such, easily spreads to new areas.

Water fern, also known as fairy fern

(Azolla filiculoides)

This plant has tiny scale-like leaves no bigger than 2.5mm – forming small plants around 2.5cm long which can cluster to form a dense mat. It is green in summer but usually turns a distinctive red in autumn and winter.

When this plant completely covers a water surface it can be a danger to children, pets and livestock who may attempt to walk on it.

As each individual plant is so small it can be transported on other plants as a contaminant. Always take care when buying new plants for your pond and make sure that water fern isn't already present on the plant.



Floating pennywort

[Hydrocotyle ranunculoides – may also be sold as water pennywort or simply pennywort]

Identified by its shiny, kidney-shaped leaves with crinkled edges. Where it is has escaped into the wild it is usually found floating on the surface of still or slow-moving freshwater.

It can grow up to 20cm a day, blocking out light and reducing the oxygen available to native species. By forming thick mats, which can look like dry land, it poses a danger to people and livestock.

Water-primrose

[Ludwigia grandiflora, Ludwigia uruguayensis or Ludwigia peploides – also sold incorrectly as Jussiaea]

With its bright yellow flowers this plant floats on the water's surface, as well as growing on the banks of ponds and rivers, and it blooms from July to August.

Water-primrose can become a thick carpet, outgrowing and overwhelming native species as well as clogging waterways.



Parrot's feather

[Myriophyllum aquaticum] [May also be sold as Myriophyllum brasiliense, Myriophyllum proserpinacoides, Brazilian water-milfoil, or simply as 'oxygenator']

It has bright green leaves (sometimes with a blue-grey sheen) that have a characteristic feathery appearance.

It is normally found growing as a marginal plant in still or slow-flowing, nutrient-rich water. It can grow into a thick raft which can compete with native plants and reduce oxygen in the water.

Choosing the right plants for your pond

There are many other aquatic plants available to buy that will still oxygenate your pond, provide shelter for pond creatures or produce lovely flowers. Please ask your retailer for advice about choosing plants which are suitable for your pond and not likely to cause a problem for the environment.

Remember to be plant wise and know what you are growing. Always ask for the scientific name to avoid inadvertently purchasing one of the invasive plants listed above. For more information please go to www.direct.gov.uk/beplantwise

Remember all aquatic plants need to be maintained, cared for and composted with care. Be Plant Wise!

For more information on good alternatives, how to identify invasive plants and useful links, please go to www.direct.gov.uk/beplantwise or call the Department for Environment, Food and Rural Affairs (Defra) on 08459 33 55 77

Photography courtesy of RPS Group Plc, Photography Courtesy of RPS Group Plc, Trevor Renals, GBNNSS and Snowdonia National Park Authority



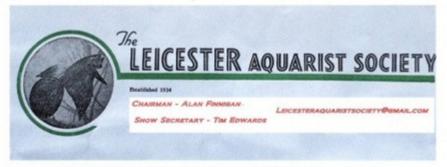












PRESENT THEIR OPEN SHOW.

SUNDAY AUGUST 4TH 2013.....

OUR FIRST OPEN SHOW SINCE 1984!

Show will be run to FBAS rules and we will be having an auction. Venue is Braunstone Working Mens Club Braunstone Close, Leicester 1e3 2ge

1/2 Mile from Junction 21, M1

SCHEDULE TO FOLLOW EARLY 2013



CONTACT SHOW SECRETARY ON 01162865626

FIND US ON FACEBOOK - LEICESTERAQUARIST SOCIETY



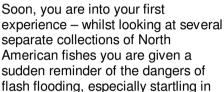
You may think that one 'Mile High Aquarium' would be enough for most people but, for those living in the dizzy heights of Denver, Colorado, they have to go one further and have two. One is a stand-alone public aquarium in the Downtown area next to a roller-coastered pleasure park whilst the other forms part of Denver Zoo and hides its treats behind the façade of the Tropical Discovery house. Surprisingly, there is not a lot of duplication occurring between the two, which makes a visit to each a new experience.



As you can see, the 'Aquarium – an Underwater Adventure' looks as if it means business and, once inside you are left in no doubt.

The first fish you see are in an enormous tank which, handily, sits adjacent (and forms one wall of) the restaurant – a good enough place to start as any!









normally arid desert areas, and many an unsuspecting visitor got a mild drenching!



The usual 'tropical rain forest' habitats are well represented - they even had a pair of live Tigers above a tropical pool –



as are coastal lagoons and nearby coral reefs, made all the more realistic by the merging of large photographic dioramic backgrounds with large, well-lit shallow displays in front.



Children found it a thrill to be able to pop under the displays and stand up with their heads enclosed in a Perspex bubble right next to some huge, ugly grouper! An equally, violent display featured marine fishes of the surge areas, and it was quite obvious that these fish felt right at home as thousands of gallons of water was emptied into their tank every few minutes.



Everywhere, there was excellent signage giving full details of the species on display, their habitats, lifestyles and dietary requirements.



The display in the Zoo seemed to border on the more blood-thirsty side of things. Unlike our Zoos, the authorities do not ignore that most animals form a part of a large food chain; reptiles and amphibians are openly fed live foods and seeing a large Chameleon stalk an unsuspecting Locust held visitors attention for several 'Will he, won't he get it?' minutes. For the record, he did!



Elsewhere, Mudskippers rolled their eyes in their sockets as they basked on a sandbank and hordes of Clownfish zoomed in and out of some of the largest Sea-Anemones you could wish to meet.



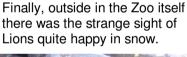




The diversity of fish on view can be judged by these three pictures – big Cichlids (although this one was small compared to the Arapaima in its tank), strange bottom-dwellers and a very unafraid Yellow-faced Jawfish who spent as much time outside its burrow as in it.



You could even get up close to these big cats being only separated by a thick sheet of plate glass!





For Sale & Wanted

FOR SALE:



WHITE CLOUD MOUNTAIN MINNOWS £1.00 each.

WANTED:



Traditional 'angle-iron' double aquarium stand.
Width 24" X 12-15" (front to back) with space for 12"-15" tank on bottom shelf.

Contact Malcolm Goss on 01494 722786 or email: malcolmgoss@tiscali.co.uk

FOR SALE:



Daisy's Ricefish (*Oryzias worworae*) £1.00 each Contact Peter Anderson on 01753 882873 email: peter.anderson@uwclub.net

NOTE: Advertisements for the disposal or acquisition of fish, plants and equipment may appear here free of charge for private aquarists only.

Please bear in mind, any lengthy gap between publication and replying may result in the goods being already sold or provided.

A telephone call or email is a small price to pay to avoid possible disappointment.



Coelacanth, Latimeria chalumnae

"LIVING FOSSIL"

The Coelacanth was thought to have gone extinct with the Dinosaurs 65 million years ago. That's also how long ago it seems that I was listening to a talk given by Mike Shadrack of the Ilford Fsh Club and it was truly fascinating.

He told about the crew of a local fishing trawler, fishing off the coast of Madagascar and the East coast of Africa who caught this monster of a fish, that they had never seen before.

Scientists regard this fish as a "living fossil". Mike told the tale of both the French and the English that laid claim to the discovery of the Coelacanth but, to be honest, I cannot remember how this came about. (Wikipedia says 'The first *Latimeria* specimen was found off the east coast of South Africa, off the <u>Chalumna River</u> (now Tyolomnqa) in 1938. Museum curator <u>Marjorie Courtenay-Latimer</u> discovered the fish among the catch of a local angler, Captain Hendrick Goosen, on December 23, 1938."

The taxanomic name honours the discoverer and the location where it was found. I do know a preserved specimen is in the Natural History Museum in Cromwell Road South Kensington, London.



The most striking feature of this "living fossil" is its paired lobe fins that extend away from its body like legs and move in an alternating pattern giving thought to this being a creature that moved on land before settling for an existence in the tropical waters of the sea.

This is a carnivorous fish that can grow to 2 metres (6.5ft) and would

have a weight of 90kg(198lbs) and that has to eat an enormous amount of food



So it has a characteristic large mouth that's worked by a hinged joint to the skull which allows the fish to except large prey. Its prey is detected with the help of an electro-sensory rostral organ in its snout.

An oil-filled tube, known as the notochord, serves as a backbone and along with extra thick scales, these features are

only found in extinct species of fish.

The Coelacanth is a deep-sea creature, living in a depth of 700 metres (2,300ft) below the seas surface. The exact amount of species living today is unpredictable, but South African scientists state that a figure as high as 1,000 remain, and of course the Coelacanth remains an endangered species (no surprise there then).

Mike Shadrack: Ilford Aquarist & Pondkeepers Society Photos: Malcolm Goss: Hounslow & District A.S.

Ask Us

Q: I have a freshwater community tank and it runs very nicely.

I first set it up in the summertime and this will be my first winter with the tank. I do have a thermometer on the front of the glass and a very good heater, which is set to between 78F-80F.

As myself and my wife are both at work all day, during the week the heating is off for the best part of eight hours a day. I was just wondering if the temperature of the house would dramatically affect the temperature of the tank? Your advice would be appreciated.

Thanks, Mr Fordham

A: Newcomers to the tropical fishkeeping hobby often worry unnecessarily and the question of heat loss is one of the top favourite concerns! Most 'worriers' don't realise that a) the tank temperature won't drop like a stone if the heating fails and b) water temperatures in nature don't remain 'thermostatically stable' over the 24 hour period either.

Even a modest two or three foot tank will take hours for the water temperature to drop to a lethal level, the average aquarium is quite a good heat store. Remember too that once the set water temperature has been attained, the aquarium heater only has to come on intermittently to keep it at the right level.

You could ask yourself what happens overnight (also an eight-hour period) when perhaps the home heating is also off? Most homes are fairly well insulated and ambient temperatures should not fall unduly low anyway, so just enjoy your fish.



The area for aquatic plant-lovers



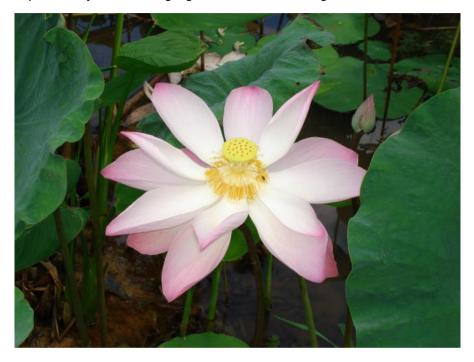
A CHANCE HOLIDAY DISCOVERY IN PHUKET, THAILAND

My wife Jean and I decided on a late holiday in Phuket, both needing plenty of sun and humidity. The average there is 32°C (91°F) during the day and 28°C (high 70's F) in the evenings – lovely!

We went for 16 days in late October to the Kamala Beach resort which is exotic and lovely. There were three organised trips included, one of which was to see and ride on Elephants. This was much enjoyed - with very close contact with our elephant!



On the way out at the side of the road was a wide stream and, as I was passing, I noticed this huge and beautiful patch of pink Waterlilies on long thick stems. Opposite was a workman driving an Oxen cart. I was captivated by this amazing sight and took these images.



Since returning, I have done a little modest research and found that it is in fact recognised more as the pink Lotus flower '*Nelumbo nucifera*'. It was strong and tall and quite a sight.

Apparently it is the Sacred Flower for Buddhists and also the National Flower of India. The flowers, seeds and young leaves are all edible as are the Rhizomes (tubers beneath).

The central area - looking like an upturned colander - is, in fact, the pod where the flower seed is located sticking to the underside of the holed areas of the seed pod. When fully formed as quite large seed, they are then dried and either stored or eaten.

In the other similarly looking photograph, you can see that the seed pod of the flower next to it more clearly. The petals have all been detached leaving its stamens showing the green seed pod with holes.



They can be saved and germinated in water with the fertile ones staying under water while the remainder floats to the water surface. The sunken seed eventually sprouts tiny roots and can be transplanted when growth is large enough into a pond – presumably requiring the proper water temperature to do so.

This was a great experience for a fish pond owner of modest dimensions – but I guess I can forget about growing *Nelumbo nucifera* in our climate!

Eric Harding, January 2012

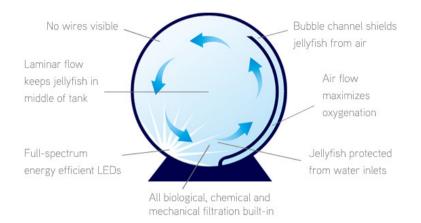
Editor's Note: Funnily enough, during the making of a Water-Lily video we saw many Lotus plants being grown in an unheated (albeit double plastic-insulated) poly-tunnel just outside Yeovil. Quite an amazing feat of survival, considering the weather we've been having!





At last year's event "Aquatics Live" there were many features that could come under the heading of "Star of the Show" and many of the fish and stands could easily have come into this category and Jellyfish certainly was one of them. But how many of us even know how to keep them, let alone know where one can purchases them?

Some keen aquarists have tried, but it has proved impossible to house them in a standard aquarium that is really designed for tropical fish. Jellyfish are so delicate they even pull themselves, or are drawn into most filters and are sadly torn to shreds. Lovers of those who would like to keep them will be delighted to hear news of the first domestic aquarium designed specifically for these translucent medusas.



The seven gallon tank that is now available on line is circular in shape and uses a unique pump system to circulate water in a controlled swirl, nudging the jellyfish away from the sides of the tank and clear of any dangerous filter intakes etc.



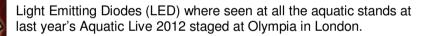
The manufactures claim the complete kit only takes ten minutes to assemble and will house a family of small moon jellyfish.

Each tank kit costs £237 (the price information appears to be calculated on the American, dollar-based website) and is lit up with a colour changing LED light.

Watching the jellyfish drift with the current around the aquarium is said to be strangely "hypnotic", like a living lava lamp.



Lighting up Aquatics Live 2012





Whilst **LED** lighting has now been lighting our aquariums for some time, it is during the last twelve months that it has being brought to the fore-front. When **LED** was introduced in the early 1990s, it gave more light with a lower consumption of power. With its development it gave manufactures the opportunity to be more creative with new designs and style, thus going head to head with the most up to date shape and sizes of the modern aquariums.

This form of lighting has progressed way beyond what those of us that only grew up with tungsten light bulbs knew. Due to their close proximity to the aquarium water, bulbs would "blow" and required replacing on a regular basis. For many years both the marine aquarist along with the freshwater aquarist who wanted to grow fully aquatic plants seriously, halogen lighting was the ultimate alternative.

Fluorescent lighting still plays an important part for many aquarists and with the introduction of the T5 fluorescent tubes giving such high output ranging from 18w or lower to 96w things have never looked brighter for these types of lighting (sorry for the pun).



I myself changed over from the standard fluorescent systems in my fishouse, to the "Hagen Power Glo" lighting that are fitted with T5 tubes. The TS tubes are fitted into a completely sealed unit with very highly-polished reflectors, giving off excellent natural light that makes my plants just grow and grow.

With technology moving faster than we can purchase, along has come the digital timer to control our lighting systems. We can simulate all the sunsets and sunrises from across the world or, alternatively can bathe our aquariums in moody blue moonlight should the fancy take us.







Size also isn't a problem - units can be as large or as small as you want.



Of course technology has to be funded, so like all things that show such advancement these systems are not cheap. Maybe in the course of time prices will go down, but **LED** lighting that may well outlast your most longest living fish, without any replacement, may still be a long way off so do not hold your breath on that happening.

If this lighting is for you may I suggest you go for it, as you will not be disappointed.



The Bulletin acknowledges the following Companies:

Giesemann Aquaristic. Ocean Aquarium. Rolf C. Hagen UK Ltd.

AN OPEN SHOW, JIM – BUT NOT AS WE KNOW IT

Over many years I have attended and exhibited at various Aquatic Society Open Shows as well as doing the same at Garden Society Open Shows. Many of the basics are very similar, ie, a lot of work is put in by the host Society, a Show Schedule describes the venue, date and Classes that can be entered, external Judges mark the exhibits and prizes or cards are awarded to the winners. There are however some major differences between the two.



Garden Shows are also aimed at bringing in members of the general public to see and enjoy the Show and maybe get interested enough to join the Society.

To achieve this aim, the Show must open to the public at an advertised time and the exhibits displayed in a manner that "non-experts" can readily understand. Some are even held in a marquee in grounds with many other activities going on.

To achieve this type of event the Show Committee must know in advance how many exhibitors are coming and what they will be bringing. Closing dates for entries are usually two or three days in advance of the Show: this is for planning the benching area required and to finalise the judging plan. On the day of the Show, benching is required to finish by midmorning to allow judging and results to be displayed prior to opening to the general public.



Aquatic Shows also like to see the general public attend but we have problems around the planning. Entries and benching are allowed usually up until about midday on the day of the Show itself, so the Show Committee do not know the final numbers until after then.

This can, and does, result in some Classes having more entries than the space that was originally allowed. Lots of shuffling and moving tanks only to find yet another Class is bigger than expected! High entry numbers is theoretically really good, but can give last minute problems.

Many of our exhibitors come a long way to the Show, so any traffic delays can mean they may bench after the official deadline. Time is then spent making sure all entries are in the right Class and in the right order and all exhibits on the bench tally with the Judging Sheets.

When everything checks out OK, the hall is emptied and judging commences. No-one is allowed into the hall until judging is completed and all Place Stickers are on the winning entries.

Depending on the number of entries (and any issues that may be found during judging), the hall may not open to the public until 4pm or often even later. This makes a viewing time almost impossible to predict prior to the Show.

Once open, each Class of fish may have a descriptive card at one end of its row, ie, Class E – Anabantids, and the winners will have an identifying card with the Latin name and other details on it.

If there is a fish you like but it did not win, it may have a Latin name on the tank but if not you will have to note the Tank Number, the Class it is in and ask where the Result Sheet has been placed if you want to find out more about it. Then, if you want to chat to its owner you have to ask who it is from the Show Secretary!

These Results Sheets are usually put up in the order the Judges completed them and not in any other order. The Classes are not necessarily in alphabetical order in the hall either!

Once the results are up many exhibitors wish to de-bench and be on the road. This is all understood by regular exhibitors and Society members, but anyone visiting will be easily confused and certainly not encouraged by the experience.

The really sad part is that at a Show of 200 or more fish, there will be nowhere with a better display of top quality fish, and with a wider variety, anywhere else locally.

Hardly maximum exposure for the very best fish around, for any potential new Club members. Which is better for the ongoing benefit of the hobby? Huge numbers of fishes on display for the 'already-converted', or fewer fish but able to reach out to a far larger public?

This year is the Hounslow and District Aquarists Societies 50th Open Show and to celebrate we are trying to move towards a more "open" Show.

With the aim of trying to put on an exhibition as well as the competition, entries must be entered by Wednesday 12th June at 9pm and benched on Saturday 15th June by 11am. The judging can then start as soon after 11pm as possible. Our aim is to have the results up and the Show open to the public by 2pm.

Exhibitors and judges have been very positive to these changes so it should be possible. Because we know in advance the numbers of entries, we can set up the stands on Friday night and also plan additional displays. These could be breeding set-ups, furnished aquariums, a Club Advice Desk, a shop and maybe more.

The Show is at:

The Hounslow Youth Centre, Kingsley Road, Hounslow, Middlesex, TW3 1NX.

All are welcome and I look forward to seeing you there.

Peter Anderson (Chairman HDAS)

* * * * * * * * * * * * * * * * * * *



NOW MEETS AT: Thorncliffe Sports, And Community Club Limited
The Pavilion
Mortomley Close,
High Green
Sheffield
S35 3HZ

In Memoriam



Vic Higgs, Hounslow & D.A.S

It was in 1989 that Vic joined Hounslow and little did we know what an impact he would have on the Society. His sense of wanting everything to be 'Shipshape and Bristol Fashion' became his trademark.

He worked tirelessly at Exhibitions, such as the Hampton Court Flower Show, The National Amateur Garden Shows and many other events at which Hounslow was involved. For these services he was awarded the Federation of British Aquatic Societies' 'Yellow Badge.' Vic also acted as a Judge at the Society's Table Shows.

As Open Show Manager, he knew exactly what we needed to set up and run our Shows, and also where these things could be found! Vic directed the setting up and the actual Show as a military operations as his troops rushed around with scaffold boards, extension leads and results sheets. As a mark of our respect for his tireless efforts, the Society's 50th Open Show this year will be dedicated to Vic's memory.

Vic exhibited and bred many fishes with success. He embraced technology and it was often difficult to stop him spending money on the latest gadgets. To paraphrase Lord Coe's post-Olympic tribute - 'Vic did things right.'



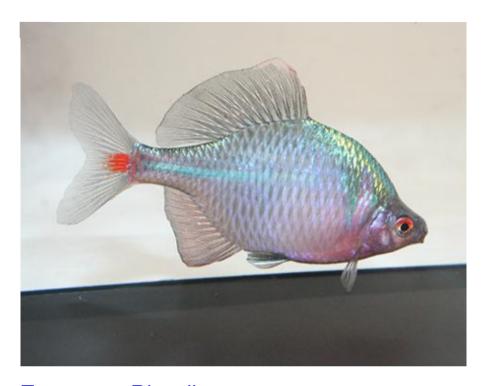
Svd Fewtrell, Reigate & Redhill A.S.

First you saw the size 14 sandals, then Syd hove into view. Here was a big man and it turned out he was just as big an influence on his Society too.

Being curator of the Strawson Hall in Horley meant the Club never lacked a meeting place and Syd, along with his wife Joan, made sure there was always a warm welcome to members and visitors alike. Well-organised meetings and external events ran like clockwork but it was the Christmas Party which most people remember most, with 'The Game' (a ruthless cross between a Raffle and 'Pass the Parcel') being the highlight.

Mourners at Syd's funeral were quite unsurprised to learn that his zest for life was not limited to fishkeeping either.

Thanks for making us all feel happier for knowing you, Syd.



European Bitterling – Rhodeus amarus or Rhodeus sericeus

Scientists used to think that Mussels and Bitterlings enjoyed a mutually beneficial relationship. A study reveals that the truth couldn't be more different.

For many years it has been received wisdom that the relationship between the Mussel and the Bitterling was of mutual benefit to them both.

With the Bitterling, the female laid her eggs inside the Mussel, so the eggs remained safe until the eggs hatched and the newly-born fry swam away. It was then believed when the Mussel's own offspring appeared they clasped themselves to the fish and were carried to fertile new homes in other parts of the lake or river bed. Textbooks held it as a marvel between two creatures working together for their mutual advantage.

When scientist took a closer look in recent times, this ideal relationship is not so. They discovered that in fact the Mussel can become so packed with large fertilised fish eggs that the Mussel stops growing. To add to this, the Mussel's own larvae are unable to cling to the Bitterling fry so cannot be transported to other areas of the lake or river bed. The Bitterling has indeed a safe place within the Mussel for its eggs but the poor Mussel receives nothing for looking after these eggs except hardship.

The true spawning habits of the Bitterling start in early April with the males showing bright colours. The females grow a peculiar long tube (ovipositor) that hangs from her abdomen, the male approaches her showing his colours and performs a form of mating dance. If she is interested she follows the male to a nearby Mussel and she inserts her ovipositor in the opening through which the Mussel inhales where she then deposits two or three eggs being 3mm in diameter. The male then releases sperm into the water around the Mussel which is then inhaled and the eggs are now fertilised. Two or three days later, the eggs hatch and develop into embryos and emerge from the Mussel about a month later as small fish about a centimetre long.

When the Mussel's eggs are released they are microscopic larvae called glochidia. These are tiny hinged structures that snap shut on passing fish and in this way will get transported to different of a lake or river bed.

Dr Smith a zoologist at the University of Leicester adds many female Bitterling lay their eggs in the same Mussel and in many cases the Mussel is literally bulging with many hundreds of these large eggs. Dr Smiths studies show that Bitterling do not carry glochidia and even if they become attached, the glochidia would very quickly drop off. This situation is far from being a relationship of mutualism, the Bitterling is in fact a parasite of the Mussel.

Study: Dr Carl Smith, University of Leicester. Report: Simon Hadlington Independent Review.



Stranger in Paradise

Macropodus opercularis, the Paradise Fish may well be one of the earliest of exotic fish being kept in captivity as a form of pet.

The name Paradise Fish is also common to the Comb-Tail, *Belontia signata*, a fish similar in shape and finnage and also from the Anabantidae family but larger in size FBAS 120mm (4.5in).

The Paradise Fish was first described in 1758 (Linnaeus) and become popular as this fish was then, and is today very undemanding. This species originated form far eastern countries, China, Korea, Formosa and South Vietnam. What also made this fish so popular was it could live happily in room temperatures, 15-20°C, although if you wish this fish to breed the temperature would need to be raised to 20-24°C.



Whilst the males show brilliant colours of red and green throughout the body and long flowing finnage, the females are much paler with fins being shorter also. On the down side, Paradise Fish can be aggressive, not only to their own species but other tanks mates if you are unlucky in the individual fish you are keeping.

As a preferred carnivorous feeder, you may well wish to keep an open tub of water in the garden so Mosquito larvae is available during the summer months. They will take frozen foods during the winter along with some flake to add to their diet.



Breeding is the same as for many in the Anabantidae family by the male building a bubble nest with the help of some floating weed and even algae that has formed on the water's surface.

After several pairings with the male embracing the female and turning her on her back eggs are released and float upwards into the nest, any that have floated downwards are picked up by the male and blown into the nest with the others. You can witness this embraces happening several times before the complete spawning sequel has taken place.

When spawning is complete the male drives the female away and he only will look after the eggs from now on. Now is the time to catch the female and remove her from the aquarium.

The young hatch within 24/30hrs and can be seen with the aid of an eye glass their tails hanging down in the form of a nail brush. After two or three days at most it is best to remove the male also, as he may well eat the fry at this stage.

The young are very sensitive to any small drop in temperature, so a tight-fitting lid (glass) is a must. Only the smallest of food will be eaten at this stage, but if they survive these first two or three weeks they will take on growth very quickly and will not become strangers in paradise.

Edited with personal experiences.

Ref: Jorg Vierke Gunther Sterba FBAS 2012 size guide



PRESS RELEASE



Festival of Fishkeeping 2013 7th & 8th September

Hounslow Urban Farm,
Faggs Road,
Feltham, Middlesex TW14 OLZ
(www.hounslowurbanfarm.co.uk)

The venue is a widely popular attraction specialising in explaining how a farm works to children unfamiliar with country living. As well as the usual farm animals there are both very rare breeds and unusual ones like chipmunks and alpacas.

So, what's a fish-orientated event doing on a farm?

The answer is increased exposure for the hobby on one hand and an added attraction for the site on the other.

There are many Fish Shows held around the UK every year, if you know where to find them, and this event is a development of the Federation of British Aquatic Societies' longstanding annual Festival of Fishkeeping.

By moving location to a long-established, already popular 'animal interest' site, fishkeeping can now reach far more potential supporters rather than just preaching to the converted. The new Venue has a lot of scope to make Festival of Fishkeeping a truly family weekend.

At this event, there will be UK's biggest display of Hobbyist Fish, Independent Traders, Japanese Koi Carp and Discus Displays, Pond Display, Furnished Aquariums, Demonstrations on how to set up, furnish and maintain various types of aquariums and advice on all aspects of fishkeeping.

Because of the 'competitive' aspect of some displays, you will be able to see the very best quality of fishes all in full adult size and in prime condition. What better place to go and learn about fish, before you commit time and money at your local aquatic store?

We are very grateful to all our sponsors because without them there would be no Festival. We are pleased to welcome back as a sponsor Mars Fish Care (Aquarian).

Over the weekend there will be Aquarian /API Kids' Zone for children of all ages, from Face Painting, Bouncy Castles, Find the Fish Hunt, Colouring Competitions with prizes for 1st 2nd and 3rd place winners. There is also a Petting Zoo, Birds of Prey displays, Feed the Animals and Animal Rides. There will be goodie bags for the children and lots more.

Come and spend the whole day with all the family.

There are lots of Hotels and Travel Lodges within easy reach of the Farm. For those that will be staying for the weekend there will be a Barbeque on Saturday evening, with Cabaret Entertainment.

For more information, please contact

Joe Nethersell, Festival Organiser on 020 8847 3586 or email joenethersell@gmail.com

SOUTHERN COUNTIES CICHLID GROUP

in association with the



British Cichlid Association

INAUGURAL CONVENTION, Sunday 17th March 2013

 a^{1}

The Scout Hall, next to St Peter's Church, St Peter's Road, West Molesey, Surrey KT8 2QE 10am to 5pm

Speaker: Dr Wolfgang Staeck Tanganyika: A Lake and its Fishes

Auction of Cichlids and related items.

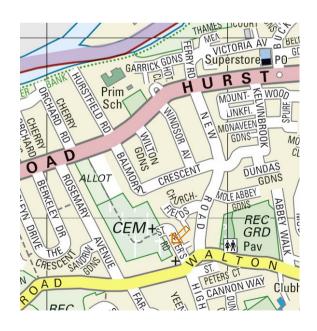
Entrance Fee: BCA members £3.50 Non-members £5.50

Refreshments and Light Meals will be available.

Auction Lots can be delivered from 9am.

To book lots contact <u>ian_glaubes@hotmail.co.uk</u> Tel: 0208 948 6835

before 10th March 2013





KILLIFISH AUCTION

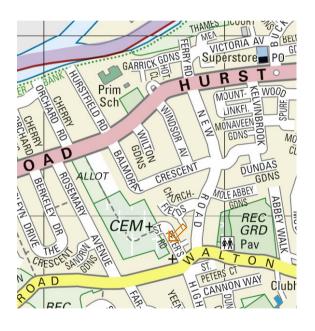
Sunday 7th April

The Scout Hall, next to St Peter's Church, St Peter's Road, West Molesey, Surrey KT8 2QE (Approx 1½ miles west of Hampton Court)

The Auction will be split into two Sections (Red and Blue) starting at 1pm with booking in from 11am.

There will be a 10% commission.

There will also be an 'Odds & Ends' Table (10% commission), a Raffle and free Refreshments.



Entrance Fee: £2.00 on the door.

Enquiries: Dave Brooks Tel: 0208 941 5314

EVENTS DIARY 2012/2013

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

FBAS ASSEMBLY 2pm (tel: 01424 431016)	2/3/13
N.W.CICHLID GROUP Auction	3/3/13
BIRTLEY AS Open Show & Auction (details to follow)	10/3/13
WEST LOTHIAN A.S. Tabletop Sale	10/3/13
CATFISH STUDY GROUP CONVENTION	15-17/3/13
SOUTHERN.COUNTIES Cichlid Group/BCA Convention	17/3/13
EAST MIDLANDS WINTER Koi Show	23-24/3/13
ASHBY A.S. Open Show & Auction	24/3/13
WEST LONDON BKA KILLIFISH Auction	7/4/13
Gt MANCHESTER CICHLID GROUP Auction	7/4/13
PRESTON & D.A.S. Auction	14/4/13
KIRKALDY A.S. Open Show and Auction	14/4/13
CASTLEFORD A.S.Open Show & Auction	21/4/13
MID-SUSSEX A.S. Open Show	21/4/13
NEAC Forum Auction (details to follow)	28/04/2013
LONDON PET SHOW Earls Court	11-12/5/13
CORBY & D.A.S. Open Show	12/5/13
SOUTHEND L & D.A.S Open Show	18/5/13
GLENROTHES A.S. Open Show & Auction	19/5/13
RYEDALE A. S. Open Show & Auction	19/5/13
FBAS ASSEMBLY 2pm (tel: 01424 431016)	1/6/13
Gt MANCHESTER CICHLID GROUP Auction	2/6/13
STAMPS Open Show & Auction (details to follow)	2/6/13
BRACKNELL A.S. Open Show	9/6/13
HOUNSLOW & D.A.S. Open Show NEW DATE	15/6/13
DJAY Open Show & Betta Show	23/6/13
PRESTON & D.A.S. Auction	23/6/13
US.A. (Perth) Open Show & Auction	30/6/13
N.W.CICHLID GROUP Auction	7/7/13
Y.A.A.S. Open Show	7/7/13
WEST LOTHIAN A.S. Auction	7/7/13
CASTLEFORD A.S.Catfish, Loach Open Show & Auction	14/7/13
N.E. YORKSHIRE GROUP BKA Killifish Show & Auction	21/7/13
LEICESTER A.S. Open Show NEW EVENT	4/08/13
FRIENDS OF YORKSHIRE Open Show & Auction	11/8/13
ASAS Open Show	11/8/13

PERTH A.S. Open Show & Auction	18/8/13
CASTLEFORD A.S. Auction	21/8/13
DERWENTSIDE A.S. Open Show	25/8/13
FBAS ASSEMBLY 2pm (tel: 01424 431016)	7/9/13
FESTIVAL OF FISHKEEPING NEW VENUE	7-8/09/13
F.S.A.S. Auction	8/9/13
RYEDALE A.S. 'Fun Day' Mini-Open Show	8/9//13
FAIR CITY A.S. Open Show & Auction	29/9/13
Gt MANCHESTER CICHLID GROUP Auction	29/9/13
PRESTON & D.A.S. Auction	6/10/13
TTAA Open Show & THREE RIVERS CHAMPIONSHIP	6/10/13
KIRKALDY A.S. Auction only	13/10/13
SCOTTISH AQUARIST FESTIVAL	20/10/13
STAMPS Auction (details to follow)	27/10/13
BIRTLEY AS Auction (details to follow)	3/11/13
N.W.CICHLID GROUP Auction	3/11/13
CASTLEFORD A.S. Auction	20/11/13
FBAS ASSEMBLY 2pm (tel: 01424 431016)	7/12/13







THE WORLD'S MOST ADVANCED AQUARIUM FILTER

FIND OUT MORE AT www.fluval-g.com