

FISHKEEPERS' AND WATER GARDENERS

BULLETIN

VOLUME 6

ISSUE 6

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PICTURE: *Black & White Clown Fish*

See article on page 21



**JOURNAL OF THE FEDERATION
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JOIN THE AQUATIC TECHNOLOGY REVOLUTION

Les Holliday (Hagen)

Aquarium keeping is one of those hobbies where there seems to be infinite opportunities to advance from easy, up to more challenging levels as experience is gained.

Although our hobby is still regarded as an art rather than a science often a large part of our on-going education is related to learning what technologies are available to help us and how these can be employed. In a nut shell our hobby is becoming more and more technology driven providing discriminating hobbyists with a whole range of technically advanced high quality aquatic products.

Aquarium filtration perhaps best illustrates the advances that have been made in recent years. There has been a continuing demand for more and more sophisticated and efficient methods of filtration by hobbyists who, not only want to apply the best standards of water quality for their livestock but also wish to improve on these in order to keep the types of sensitive and demanding subjects at the advanced

limits of the hobby. As a result, filter product manufacturers have become the masters of innovative technologies in continually developing products to meet the broadening specifications required.

Take the Fluval range of external canister filters, perhaps the most favoured method of filtration chosen by aquarists. Made in Italy this range incorporates leading edge European design, technology and workmanship that is considered second to none. Italian engineers and designers have applied three decades of product development to reach the current state of the art designs used today. The latest 05 Series range includes a comprehensive array of models suitable for tank capacities from 100 l/22 gal all the way up to Fluval FX5 which can easily handle large capacity tanks in the 1500 l/330 gal range. Each canister unit comes complete with a useful assortment of ancillary equipment, hoses, pre-packed media (not FX5) and a unique instruction package made up of an instruction book and quick start guide plus a full set up, usage



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Hi Folks,

The year is passing by again very quickly. Summer!! is upon us, and some are suffering the problems of drought. Don't forget to use your water changes to water your plants, not only does this save using fresh water but the nitrates and nitrites are good for the plants.

We have included quite a number of FBAS New Show Rules in this edition, for the benefit of our exhibitors. These include the new Aquascape Rules & the new pointing system for the British Open Final, and the Pointing system for all Championship Classes as well as the Final. Hope this makes it clearer for everyone. (Extra copies of The Bulletin can be obtained from myself or if you would like to take a subscription please contact Bob Esson)

Plans for this year's Festival are going well and bookings are coming in at a very good rate. In fact, approximately two weeks ago, the number of beds sold would have meant if we had been still at Bracklesham many would have had to sleep in tents or under the stars as it would have been well oversold.

We would appreciate next quarter to receive your club news, this will be taken on a first come first served basis, so get your club news in by the 15th of July. Don't let your club or society miss out.

Thank You

Peter Furge

Editor & Past Chairman

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and maintenance DVD presentation.

If the Fluval 05 range of filters were models of cars, Jeremy Clarkson would soon be in raptures. When you first take one of these filters out of its box you have to admire the sleek black body and silver grey accessories. The sturdy canister not only looks good but it's reinforced with glass fibres to increase quality and durability as are the chunky almost indestructible lift-lock clamps which fit snugly into the palm of the hand when operating the cam-action technology. It all looks so simple thanks to pre assembly of the main parts including the pre packed media neatly slotted correctly into the multi use media chambers. Flexibility is really the aim with these multi purpose media chambers that allow room for up to eight options from the wide range of Fluval media types which extend from simple mechanical and biological filter materials and carbon to a new range of premium grade media acting as chemical absorbers for removing nitrate, phosphate and other toxins. What's more, there is even space to add materials like Peat Granules and other water modifying media to allow precise management of the water chemistry.

The FX5 is the mega-sized filter that makes all other canister filters look small. The massive capacity and 3 huge media compartments housing multi media types make this new Fluval

one of the biggest filters you're likely to find. This filter really delivers unparalleled filtration power pumping over 3500 lph/769 gph through the canister which holds 5.9 litres/1.3 gallons of media, allowing multiple options to modify water with scientific precision, yet is compact enough to fit under almost any aquarium cabinet.

The measure of any canister filter is its capability and performance in use. The 05 series models are well thought out and easy to set up. Hosing to and from the aquarium snugly fits through the rim connector assembly, which holds both intake and output hosing securely in place. The instant prime function overcomes any need for manual siphoning and filter start up is both simple and quick. The pump is almost silent in operation and the large electro magnetic coil provides ample power for efficient operation priming and air evacuation. The unique Aquastop valve hose connection creates an air and watertight seal that permits the hosing to be disconnected without breaking the vacuum.



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This is a really convenient feature as it means the filter can be started up again without the need for priming after routine maintenance.

The Fluval FX5 is equally simple to set up and operate. The heavy duty hoses have separate rim connectors for input and output hoses and these fittings can be modified to accommodate drop ledge designs of aquarium. The new design clog proof intake strainer is shaped to siphon water quickly and is covered with a fine screen that's bevelled to repel debris, making it virtually clog proof so there is no build-up of solids that could impede the water flow.



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Preparing the filter canister is easy once the eight lid fasteners are loosened and disengaged. The media baskets pull up out of the canister in one motion using the orange T handles and easily come apart for media loading. Each basket comes encased in mechanical filter foam and your choice of media is placed in the centre. There is sufficient room for a whole range of media and it's recommended that the top basket is filled with pre-filter ceramic rings, and maybe Carbon or Zoo-Carb as further options. The middle basket is a good place to start the biological reduction process and Biomax is an excellent choice of media as the ceramic rings are an ideal shape and size for canister filters and the fine pore structure makes for good aerobic and anaerobic reduction towards complete denitrification. Extra Carbon or an Ammonia Remover would typically be added to this basket and it's also the best position for chemically modifying water using media like Peat Granules, for example, which lower the pH for fish demanding acid water conditions. The bottom basket receives the purest water stream and here is further room for more Biomax and chemical absorbers such as the newly introduced Fluval Lab Series, Phosphate Remover, Nitrate Remover and Opti-Carb, a hi-capacity ion exchange media combining ion exchange and synthetic organic removal resins and research grade carbon to create a powerful adsorbent water polishing media.

Once the media is added to the canister and the Aquastop valves locked in place, it's just a matter of switch on and the Smart Pump technology takes over. There is never any need for manual siphoning because as soon as you plug in, the self priming instant start up system fills the canister with water from your aquarium and then the pump changes over into continuous filtration mode. The canister filling sequence runs for two minutes before the pump stops to allow evacuation of air from the filter canister. Approximately every 24 hours whilst the pump is in use it will stop for two minute intervals to evacuate any air that has become stuck in the unit.



Canister filters offer unparalleled filtration power, maximum versatility and incredible control in fine tuning water characteristics. The Fluval FX5 with its multi stage stock of filtration media in a precise combination of layers combined with massive capacity and unique Smart-Pump Technology provides a filtration system for larger aquariums with superior performance

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and capability backed by Fluval's well-earned reputation for the best in fish and aquarium care.

For the opportunity to see & purchase the Full Range of Fluval Filters Visit The Festival of Fishkeeping



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TEMPERATURE

Rupert Bridges (Tetra)

Temperature is often overlooked as a water quality parameter, as with modern equipment it is so easy to keep it stable in aquariums, and there is little we can do to alter the seasonal fluctuation in temperature experienced by ponds. However, temperature has a deciding influence on virtually all areas of a fish's life.

Direct Effects of Temperature

Fish are cold-blooded, or more correctly "ectothermal", which means that the temperature of their body is determined by the temperature of their surroundings. Although some species of sharks and tuna can elevate their body temperature, and are therefore endothermal, all of the fish we keep are ectotherms.

As the temperature of the surrounding water varies, so does the metabolism of the fish. On the whole, for every 10°C rise in temperature, a fish's metabolism will increase two to three times. Metabolism is often measured by the amount of oxygen consumed, as the two are directly linked, so an increasing temperature will also increase oxygen consumption.

All fish have an optimum temperature range at which they are happiest. This can be thought of as the temperature range that a fish would choose if it was in the wild and could make its own decision. Usually, the range will be spread over 3 - 5°C, meaning that the temperature can vary by a few degrees either way without leaving the

optimum.

Because many tropical fish live in environments that are reasonably stable in temperature, it is important to provide them with a constant 24 - 27°C. As always there are exceptions, as some may prefer warmer water, and many are very adaptable to changing temperatures. However, because we are catering for a great variety of species, it is important to choose a temperature to suit all.

Temperate fish on the other hand come from regions of the world where the water temperature may vary greatly. Many of our "coldwater" species, such as mountain minnows, Chinese butterfly "plecs", and so on, are able to live in both tropical and coldwater aquaria. However, they will not tolerate excessively high or low temperatures. Goldfish, the perennial favourite for coldwater aquariums and ponds, are slightly different. They too have developed in temperate areas of the world, but they have the highest tolerance to varying temperatures of any fish. As we all know, they can happily survive freezing winters outdoors, live at room temperature, and they can even thrive in tropical waters. Fish such as the goldfish that can live in a wide range of temperatures are called "eurythermal", and they generally have evolved in environments where seasonal temperature changes may be great. Pond fish consist of a similar array of temperate species that are adapted to cold winters and warm summers.

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However, as usual, the situation is not always cut and dry. Cold winter temperatures are not necessarily optimal for pond fish, and if given the choice they would probably avoid them. Instead, they have adapted to survive the winter, rather than thrive in it. This presents pond fish with a different challenge to tropical species that are kept year-round at their preferred temperature.

Indirect Effects of Temperature

As well as directly affecting a fish's metabolism, temperature also has a number of indirect effects. Principally, these involve changes to water quality parameters, most notably oxygen.

As the temperature rises, water loses its capacity to hold oxygen. Therefore, warm water contains less oxygen than cold water. On the whole, fish are adapted for this, with tropical species requiring slightly lower concentrations of oxygen than coldwater species. However, problems can arise if tanks overheat in the summer, or when ponds get very hot. As a general rule, the warmer the water is, the more important it is to keep it well aerated.

In addition to low oxygen, warm water can also increase the toxicity of some substances, such as ammonia. Although important, in healthy aquaria and ponds levels of pollutants should be low anyway, and so temperature has no practical bearing on how we deal with them.

Just like fish, nitrifying filter bacteria are also at the mercy of the prevailing temperature. In warmer water they

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work more efficiently (provided they have enough oxygen), with their ability to remove ammonia tailing off as the temperature drops. During the winter, ammonia removal may virtually grind to a halt, but equally ammonia production by the fish will also slow right down. Therefore, in most cases the bacteria will be able to cope with ammonia production regardless of temperature.

Practical Aspects of Temperature

Rising temperatures: If the temperature of the pond or aquarium rises excessively, usually due to hot weather, the principal concern is providing enough oxygen. Not only do oxygen levels fall due to the temperature, but in heavily planted ponds or tanks, what is left can quickly be stripped out. This is because at night plants stop producing oxygen, yet continue to use it. Therefore, levels can drop dramatically in the early morning before sunrise. Sudden over-night fish losses, particularly of sensitive species such as orfe, are often caused by this phenomenon. Therefore, if temperatures rise, you should increase aeration through the use of pumps and air-pumps. In planted tanks and ponds this is especially important at night.

For indoor aquaria, you should do everything possible to prevent excessive temperature rise. This may involve keeping the tank in the shade, or even adding plastic bottles filled with ice if temperatures really soar. As a general rule, you should try and keep temperatures below 32°C, although even at this temperature oxygen levels may become critical.

Falling temperatures: The effect of falling temperatures can be worse than increasing ones, as it can easily lead to a depression in the immune system and increased vulnerability to disease. Temperate fish are better at resisting temperature drops, and generally only suffer if it occurs rapidly. Cold snaps in the autumn and spring can sometimes cause problems in this respect. Tropical fish are more sensitive, and a drop in temperature to even 16°C or so might trigger an infection. Therefore, if temperatures do fall, preventative treatment is sometimes needed. It is a good idea to have two heaters in a tropical aquarium, so that if one cuts out, the other can compensate. If both go out, for example in a power cut, then you should insulate the tank, and add bottles full of hot water to act as "hot water bottles" (do not pour hot water directly into the tank).

Acclimating Fish to New Temperatures

Sometimes it is necessary to expose fish to differing temperatures, for example when introducing new ones to an aquarium. The key is to acclimatise them to their new temperature reasonably slowly. This is done by allowing fish bags to float on the water's surface, or by gradually introducing the new water into the bag. Fish bags need to be floated for around 15-20 minutes to allow temperatures to equalise, and to avoid temperature shock.

With pond fish, the time needed is the same for the most part, except if you are moving fish when it is very cold. In such instances, the pond water may be somewhat colder than the dealer's

tanks. In such cases, acclimation should be done more cautiously, by placing the fish and its water into a bucket, and slowly adding water from the pond to it. Ideally, you want to acclimatise them to the temperature of the pond over a period of 45-60min. A thermometer is obviously a very useful piece of kit in such instances. In most cases though, pond fish are bought in the spring and summer, when temperature differences are smaller, in which case floating the bag for 20-30min is fine.

The golden rule with any fish movements is to expose them to gradual changes in temperature, rather than rapid ones. If treated properly, within a few days to a couple of weeks the fish will be fully adjusted to their new conditions.



Tetra are the sponsors again this year for the.

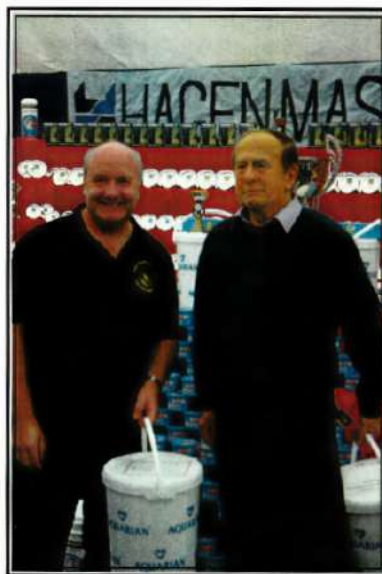
**Best Fish in Show Trophies
The British Open
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The Supreme Championship**



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Arthur Marshall - Obituary

Chris Ralph of the A of A & SCCRS



It is with great sadness that I have to inform you of the recent death of Arthur Marshall. Arthur passed away suddenly on Sunday 28th May 2006, whilst on his annual holiday to Weymouth with his wife Pam. Arthur was well known throughout the aquatic hobby, and will be fondly remembered for his passion for fish. Arthur was involved with a number of aquatic societies during his time in the hobby including

Basingstoke & District Aquarist Society, the Association of Aquarists, Southern Counties Catfish Rescue Society (SCCRS formerly Thames Valley Catfish), the Goldfish Society of Great Britain and South Park Aquatic Study Society (SPASS).

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His love of coldwater fish will be remembered by many of us for years to come, especially his enthusiasm for Fancy Goldfish such as his Pearlscales and Orandas, as well as his love of the common goldfish and the shubunkin. In recent years Arthur was a lay member of the Goldfish Society and Chairman of both Basingstoke and SCCRS. Arthur will be remembered as one of life's true gentlemen, always there to lend a hand and to offer advice to those in need of it. He will also be remembered as a true family man as he was immensely proud of his family especially his three sons who I know will miss him tremendously. Arthur was very passionate about his football team Southampton aptly named the Saints, a category into which Arthur falls "a true saint" if ever there was one. On a personal note I will miss him for a number of reasons, but most importantly to me Arthur was my second Dad.

Rest in peace my dear friend Arthur.

Arthur is pictured on the previous page with Port Talbot's John Egan as he was helping out with the presentations at the Catfish Show held at last year's Supreme Weekend at Hayling Island.

Picture taken by Chris Ralph

ARTHUR MARSHALL

John Parker of the GSGB

Arthur joined the GSGB in 1972 and has served on the Committee for several terms as a Lay Member. He has also been actively involved in running our annual auction of Fancy Goldfish in recent years.

Arthur's favourite goldfish variety was the Pearlscale albeit he insisted on calling them "Pearly Scales".

He was a keen Exhibitor and enjoyed competing and many open shows including the GSGB's annual shows at Woodford Bridge, London and Festival of Fishkeeping events at Bracklesham Bay and Hayling Island.

He will be sadly missed.

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DISEASES OF THE FINS

Dr Peter Burgess (AQUARIAN® Advisory Service)

The fins are very obvious and characteristic features of fish. These delicate appendages, which perform numerous functions in addition to swimming, are vulnerable to physical injuries and infections.

The normal fin

Healthy fins should be free of any damage to the rays or membranes. The fin's outer border should appear clean and without signs of erosion or abnormal fraying. (The fins are vulnerable to abrasions such that we might see a tiny bit of damage, particularly in some wild-caught specimens). Transparent fins are not that easy to inspect and are best observed with the fish against a uniform light background. A magnifying lens may help.

Fin posture and ill-health

When a fish clamps its dorsal and anal fins this may indicate general ill-health or stress. Some species, on the other hand, normally hold their fins close to the body. Repeated fin twitching is another possible sign of ill-health, suggesting some sort of fin irritation, such as caused by skin parasites. It pays to investigate these behaviours just in case they herald a looming health problem.

Diseases affecting the fins

The fins are fairly delicate appendages that are vulnerable to physical damage,

infections, or attack by fin-nipping fishes. Damaged fins are susceptible to bacterial or fungal infections which, in a minority of cases, may spread to the body and become potentially life threatening. Certain skin-dwelling parasites (such as whitepot parasites - *Ichthyophthirius*) are often first detected on the fins, so it pays to closely check the fish's fins when investigating possible parasite problems.

(1) Physical damage

Signs: The extent of damage can range from small nicks or splits to whole chunks missing from the fin.

Causes: Physical damage may arise when fish are frightened and dash into sharp rocks or gravel. Clumsy handling can be to blame, particularly when netting catfishes whose spiny pectoral fins easily become tangled in the net's mesh. In some cases, a fin-nipping fish may be the culprit. Often it is the victim's caudal fin, and sometimes the other median fins, that is the target of such attacks.

Treatment: Take care when handling and netting fish, especially catfish. Before purchasing a fish, check whether it has fin-nipping or other aggressive tendencies; unfortunately, such fish cannot be "trained" to be more sociable! If damaged fins are not healing properly or look infected then

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the fish should be treated in isolation using an anti-bacteria medication such as Melafix. Fortunately, damaged fins generally repair quite well, although sometimes the regenerated area is misshaped – bad news if you plan to show the fish.

Note: Some fish possess fins that normally appear tattered or frayed. This is particularly the case with the adult males of certain species that have long dorsal fins with extended fin-rays of uneven lengths. Examples include the arulius barb (*Barbus arulius*) and the swordtail characin (*Corynopoma rüsei*). Some cultivated varieties of fish have been selectively bred for their tattered looking fins. A recent example is the "crowntail" fighting fish (*Betta splendens*) with its comb-like fins.

(2) Fin rot

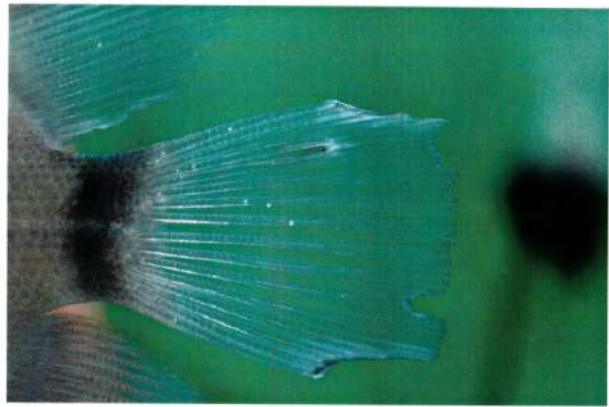
Signs: As its name implies, fin rot manifests as a gradual erosion of the fin. This condition commonly affects the caudal fin and is specifically referred to as "tail rot". Typically, the first signs are whitish areas appearing on the fin, or there may be whitening and erosion of the fin edge, giving a ragged appearance. As the disease progresses the fin membrane rots away, leaving the fin rays exposed. With tail rot, the disease may spread to the adjacent body – the area known as the caudal peduncle – which becomes very pale and sometimes takes on a pinkish blush. At this stage the disease is potentially life-threatening. Extensive erosion of the caudal fin may cause the

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fish swimming difficulties.

Causes: Various types of bacteria, one well-known culprit being the "columnaris" bacterium, *Flavobacterium columnare* (formerly called *Flexibacter columnaris*). These bacteria tend only to attack those fish that have a weakened immunity or have already sustained fin damage. Skin parasite infections (e.g. caused by *Ichthyophthirius*) or unhygienic water conditions will make fish more prone to fin rot. Transportation stress is another contributory factor, such that outbreaks of fin rot are not uncommon in recently imported stock.

Treatment: Fin rot is generally curable if caught at an early stage, before it spreads to the body. Various fin rot and general anti-bacteria remedies are available on the market to tackle this disease. The herbal remedy, Melafix, seems particularly effective. With advanced infections that have progressed on to the body, even antibiotic treatments cannot be guaranteed to save the fish. In general, fin rot is not highly contagious and often only a single fish will be affected. It is, however, a wise precaution to isolate affected cases and treat them under very hygienic conditions. In the unlikely event of several fish developing fin rot, the whole aquarium or pond should be medicated and any underlying hygiene problems rectified. Preventative measures rely on providing fish with clean, minimal stress conditions.



1) Tail rot on a cichlid. This fish also has a mild whitespot infection, revealed by several tiny white spots on the fin.

(Pictures © copyright Dr Peter Burgess)

2) Erosion of the dorsal fins of recently imported glowlight tetras. Possibly caused by fin-nipping or damage during handling.



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(3) Fin bruising (haemorrhaging) and/or red streaks (prominent blood vessels)

Signs: One or more fins (but typically the caudal fin) have red bruises or prominent blood vessels running through them.

Causes: A bacterial infection is often to blame. In some cases, the bacteria infiltrate the fish's blood system and spread throughout the body, with serious consequences, such as septicaemia, if left untreated. Stress or exposure to unsuitable water conditions may also cause the blood vessels in the fins to become more prominent. Poor nutrition, notably a dietary lack of certain essential vitamins, is another cause of fin haemorrhaging.

Treatment: In some cases the condition can be cured simply by improving the fish's water conditions, paying particular attention to the overall hygiene of the aquarium or pond. If there is no improvement then a bacterial infection should be suspected and the fish treated with an anti-bacteria remedy. Antibiotics (from the vet) may be required to treat the more serious cases where bacteria have invaded the blood and are causing the fish to exhibit other signs of ill-health such as loss of appetite or sluggish behaviour. In terms of nutritional deficiency causes, these are unlikely to arise provided you feed a quality diet made by a reputable fish-food manufacturer.

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(4) Fungus on the fins

Signs: One or more fins have cotton wool-like growths on them. In most cases the affected fish appear otherwise normal and healthy. Fungus can also attack the other body surfaces but generally does not invade the deeper tissues. Fungal problems are rare in marine fish as the fungal pathogens are unable to tolerate high salt levels.

Causes: Infection with *Saprolegnia* fungus or related species. Also known as "water moulds", these fungi are present in most bodies of fresh water and are normally harmless to fish. Fungi tend only to attack fish that already have fin (or skin) damage or those with a weakened immunity, perhaps due to chronic stress or exposure to extremes of low temperature.

Treatment: Various anti-fungal remedies are available, however the old favourite, malachite green, may be withdrawn due to health concerns. (It has already been withdrawn for use on food fish species). A novel herbal remedy, based on *Pimenta* extracts, is now available in the UK – marketed as Pimafix. Whenever a fungus problem arises it is important not only to treat the condition but also to investigate why fungus attacked the fish in the first place. If major underlying causes such as unhygienic water conditions or stress are not tackled then fungus outbreaks may become a recurrent problem.

RAIN FOREST

Malcolm Goss

Over recent years we have seen new fish coming into our hobby more than ever before, often fish that have not been scientifically described as yet. They have, in fact, been so numerous that the trade invented a series of code letters to identify these newly discovered fish. I, having had an interest in Catfish for many years, have seen so many beautiful Catfish from the family *Loricariidae* coming into our hobby.

The sad part, that we often do not realise, is finding these fish within their natural habitat is at the cost of the rainforest. Deforestation makes not only discovery of the new species that much easier, but getting the fish out of these areas could never have been achieved 20 or more years ago. The cutting down of rainforest has hit the headlines with news of the appalling deaths of 2,000 people who live within the lower mountain villages in the Philippines, where mud slid down the mountainside started by volcanic movements. Deforestation and illegal logging has at this time been claimed as part, if not all to blame.

It was only a few weeks earlier that we heard exciting news of how Bruce Beehler and his team discovered on the jungle slopes of the Foja mountain range in New Guinea what was described as a "Garden of Eden". Here there were dozens of newly discovered animal and plant species never seen by man before. Bruce Beehler, co-leader of the expedition, said, "There was not a single trail, no sign of civilisation, no sign even of local communities ever

having been here. It is as close as you can get to the Garden of Eden". Mark Henderson, science correspondent, reported it was only a few moments ago that scientists announced the discovery of the world's smallest vertebrate, a fish named *Paedocypris prognosticus* that grows to only 10.3mm and lives in the swamps of Sumatra.

All this news has taken me back to the Rainforest lecture given by His Royal Highness The Prince of Wales at The Botanic gardens, Kew, that took place on 6 February 1990. It was only fitting that the Prince of Wales should choose Kew to give his lecture as Kew has been carrying out continuing rainforest research for the last 150 years, much of the world's understanding of this type of ecosystem is based on their research. The Prince pointed out that while it is so easy for us sitting surrounded by the comfort and convenience of modern European life, perhaps our response to the situation and the problems of the people who live in or around the rainforests should be, not so much "What can we do?", but "How can we help?". Pictures were shown of industrial logging and the resultant floods that are the tragic result of tree removal. While we benefit from the discovery of new species these will soon disappear, even before they have been described by science, with the loss of their natural habitat. One may well ask has there been any change since 1990, is there anything we can do.

Acknowledgements:
Nick Meo, The Times 8/2/06
Friends of the Earth Trust, London.

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Festival of Fishkeeping & Water Gardening Weekend

October 6-8, 2006 at Mill Rythe Holiday Village, Hayling Island, Hampshire

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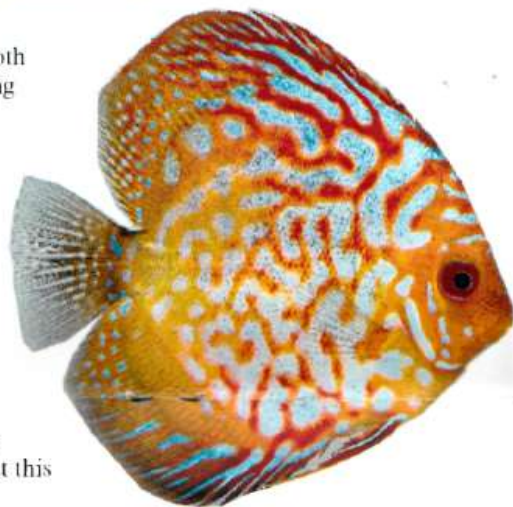
This year's events:

- 'Hagen Masters' Open Show (on Sunday - sponsored by Rolf C. Hagen)
- The Laguna Southern Koi Festival (sponsored by Laguna)
- Goldfish Society of Great Britain Fish Show (on Saturday - sponsored by Aquarian)
- British Open Final (on Saturday - sponsored by Tetra)
- The FBAS 'Supreme Championship' Final (on Sunday - sponsored by Tetra)
- Catfish Show (on Saturday - sponsored by Aquarian; Southern Catfish Rescue Society Rules)
- 'Jinchi Kai' - UK Ranchu Specialist Goldfish (sponsored by Aquarian)
- UK Discus Show (sponsored by Tetra)
- Society-furnished aquaria
- Your chance to meet some of PFK's Ask the Experts team (on Sunday).
- Speakers from the aquatic and water gardening worlds.
- Furnished aquariums, pond and water garden displays, trade displays.
- Your chance to vote for your favourite photos in the PFK photography competition.

A host of exciting attractions for both residents and day visitors, including everything you need to know about:

- Freshwater tropicals
- Discus
- Marine fish
- Koi and goldfish
- Native freshwater fishes
- Filtration and lighting
- Water gardening

The water for the Discus will be provided by RO Man and AllClear will provide the water for the Koi at this year's Festival.



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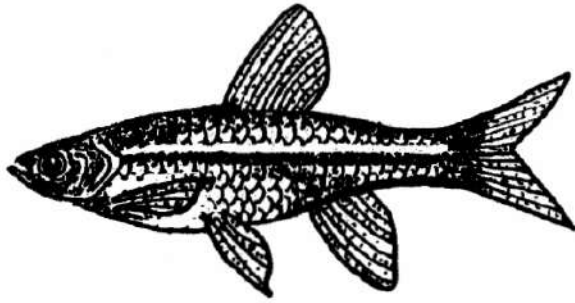
Hotline bookings: Please contact Grace Nethersell, 8 Acacia Avenue, Brentford, Middlesex TW8 8NR. Tel. 0208 847 3586.

Day visitors

Day visitors are welcome on Saturday, October 7, and Sunday, October 8, 10am-5pm. Entrance free: sponsored by Aquarian.

KNOW YOUR FISH

Red Tailed Rasbora - *Rasbora borapetensis*



- Common Name:** Red Tailed Rasbora
- Scientific Name:** *Rasbora borapetensis*
- Where found:** Bung Borapet, Thailand.
- Characteristics:** The back has a green sheen which becomes silver towards the anal contour. A broad black line runs from the opercula to the caudal peduncle, above this line lies a gold stripe. As the common name suggests, the caudal peduncle is reddish, this colour extending into the caudal fin. Other fins are clear. The caudal fin has pointed lobes, the dorsal fin is broadly pointed with a convex rear margin. Pectoral and pelvic fins are pointed with convex margins.
- Remarks:** A fish with a limited distribution, being found only in a single lake and a few nearby streams.
- FBAS Show Class:** 'J'

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FISH! FISH! FISH!

FESTIVAL OF FISH AND FISHKEEPING

What aquarist in their right mind could resist such a title?

You're right, we couldn't, so Joe Nethersell, Colin Richards, Peter Furze and Dick Mills accepted the invitation from Sparsholt College to take the Federation's Information Stand down to their event of the same name.

Every aspect of anything to do with fish – from catching them to keeping them – was covered, both indoors and out. In the biting cold wind, brave souls gathered to watch a Casting Competition, tried their hand at carp fishing, handled fish in the Hatchery whilst others just admired the frogs spawning in the reeds.

Indoors, the main attraction was the College's new Aquatic Centre. Here you could follow spawning procedures, watch the growing fry under powerful microscopes, see how various rearing programmes unfolded and admire the diverse number of species under evaluation.

In the main campus buildings, there were two Halls devoted to lectures by both the angling and fishkeeping fraternities, each having their own particular gurus in attendance. Names familiar to aquarists included Rupert Bridges (Tetra), Dr Peter Burgess (Aquarian), Chris Ralph, Andrew Caine together with Sparsholt's own Adrian Love and Craig Baldwin

number of display stands were situated in another Hall, something that many people weren't apparently able to find by the few people that came to visit us. It looks, with hindsight, that an information poster giving directions to the hall was stuck on the wrong wall and people missed seeing it. However we did get to speak to some interested folk and directed them to their nearest Societies or answered their queries.

Of course, it was the familiar story, we were only likely to be preaching to the converted anyway but at least with few visitors to the Stand it gave us the opportunity to take in the other attractions – something we're not usually able to do!

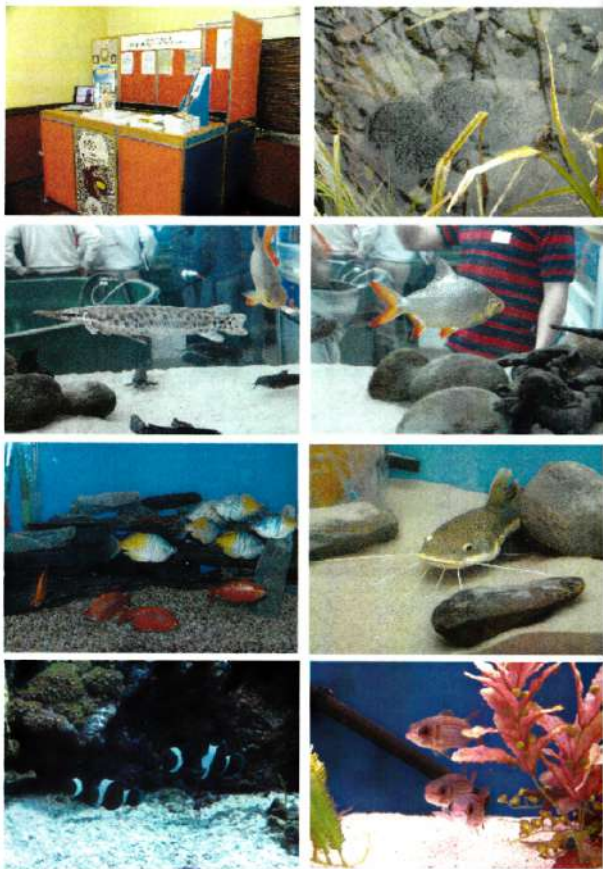
If you get a chance to have a look at Sparsholt, do take advantage to do so. You can spend a lot of time in their Aquatic Centre, finding out about the scientific side of our hobby.

Details of Sparsholt College, situated just outside Winchester, can be found on their website: www.sparsholt.ac.uk or telephone the Fish Section on 01962 776441

Photos opposite:

FBAS Stand **Frog Spawn**
Gar **Tinfoil Barb**
Rainbowfish **Redtailed Catfish**
Clown Fish **Squirrelfish**

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HOW TO PREVENT AND CONTROL ALGAE

A no-nonsense Think Fish guide to solving your algae problems

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What is Algae?

Algae are basically a primitive plant or photosynthetic organism that does not have a vascular system (complex structure). It is impossible to eliminate algae from entering the aquarium; it will arrive through tap water, from the air, from fish, and from plants. 'Prevention' methods such as rinsing plants & décor and not allowing new water to enter the tank when introducing fish will not work. Complete prevention is impossible and a low level of algae growth is a healthy thing, providing an extra source of food for fish and even processing some waste products

What causes algae blooms?

When algae grows quickly and becomes unsightly, it is referred to as an algae 'bloom'. Algae basically need water, light, and a source of nutrients to thrive and it is the nutrients that are the precursor to algal blooms. Although strong lighting is often blamed, with the exception of direct sunlight, lighting is rarely a cause. In terms of nutrients, there are four main conditions which will cause algal blooms; organic matter, phosphates, nitrates, and excessive water borne minerals and nutrients.

Organic matter

Waste 'organics' such as fish waste,

leftover food and tank 'mud' all break down and produce water-borne nutrients, which are ideal food for algae. Correct feeding amounts (so that no food is left over) and regular substrate cleaning with a gravel cleaner will help to keep organic matter at low levels, and improve the general health of the tank. For planted tanks, or where disturbing the gravel is undesirable, a fine substrate can be used rather than larger gravel. Fine substrates allow less water to flow through the grains, which means less oxygen, and this allows nutrients to settle and become trapped to organic particles in the substrate, away from the water where algae will grow. This method helps keep the nutrients available for plants (via the plants roots) and unavailable for algae. Ideal grain size should be no smaller than 1mm (silver sand is too small) and no bigger than 2mm (e.g. pea gravel)

Phosphates & Nitrates

These two substances are major causes of algal blooms, and are constantly produced in the aquarium, building up over long periods. Regular water changes may keep nitrates down to acceptable levels but tap water often contains high phosphates. The only way to check your levels is to use a test kit and regularly check for both phosphates (PO₄-), which should be

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under 1mg/l, and nitrates (NO₃), which should be under 50mg/l. If the levels of either of these are too high, you can use specifically designed filter medias or treatments to remove both nitrates and phosphates. The best products to use depend on your tanks filtration type, for external filters there are several filter medias which can be used. For internal filters you may need to use more specialized liquid or substrate additives, or even purchase a second small internal filter to house the media's normally used in external filters.

Excessive minerals and nutrients

Tap water contains a large amount of many different minerals and nutrients, which are ideal food for algae. This is why, along with fluctuating water conditions, algae blooms are common in new aquariums or after large water changes. Using fast growing plants and absorbing filter mediums such as activated carbon in new tanks will help to keep excess minerals and nutrients at low levels. Water changes are an essential part of maintenance but should always be kept small and never exceed 20% with the exception of emergencies.

Natural preventatives

The best method to prevent and remove algae in the aquarium is to use some natural algae-eating fish and shrimps. For small aquariums and/or with small fish, Dwarf Plecs (Peckolia sp.), Otocinclus Catfish, and Japonica/Algae Shrimps (Japonica sp.) are best. For

medium tanks, Bristlenose Catfish and Siamese Flying Foxes are suitable whilst for large tanks or with big tank mates, Common Plecs and Algae Loaches will eat algae. It should be noted that only shrimps and Siamese Flying Foxes will eat 'thread' type algae. Larger algae eaters such as bristlenose or common plecs are not recommended for planted tanks since they will damage delicate leaves.

Chemical treatments

If other methods are not working, there are a wide range of anti-algae treatments available. These are best used in conjunction with the other methods mentioned, since they are only a short-term measure. Choose an algae treatment suited to the type of algae you have, and be aware that some treatments have a limited effectiveness. If possible, try natural methods first. Most algae treatments will not work if the causes of algal blooms (e.g. high phosphates, nitrates) are still present in the aquarium.

MYTH BUSTER

"Algae is caused by too much light"

Brighter lighting will encourage algae to grow, this is a natural part of an aquariums environment but algae blooms or problems are very rarely caused entirely by lighting. It is much more likely to be an excess of organic waste, nitrates, or phosphates which causes algae blooms. It is much better to have bright lighting and healthy

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growing plants (which will remove nutrients from the water) than excess nutrient waste, dim aquariums, and algae.

"Snails can be used to remove algae"

Snails do eat algae, but in freshwater aquariums you would need a lot of snails to control an algae problem, by which point you would probably have a snail problem! Snails will usually not touch thread or brush algae either.

"A 'siesta' period (switching the lights off) during the day will stop algae growing"

There is some truth to this although it does not work under 'real-world' conditions. Algae need extended periods of light to thrive whilst plants can grow with intermittent light, so a siesta period in the middle of the day is designed to remove long periods of lighting, leaving lights on for no more than four hours followed by an hour of darkness. This will only work if the period of darkness is complete darkness. Under normal conditions there is always ambient light from the surrounding room, allowing the algae to continue growth and preventing harm.

"Algae is introduced with aquatic plants"

This can be true, but then again, algae is introduced by many other methods, so it is not significant. Aquatic plants often simply provide a good surface for algae to grow on as they are higher up

(near light) and in the open water where nutrients are available. Healthy, growing plants actually help to prevent algae from growing so should be encouraged wherever possible.

TOP TEN TIPS

- 1) Test regularly for Phosphates and Nitrates
- 2) Try keeping some fast growing aquarium plants
- 3) Avoid direct sunlight
- 4) Avoid large water changes using tapwater
- 5) Use phosphate & nitrate absorbing filter media
- 6) Use a gravel cleaner, or use a fine substrate
- 7) Avoid the use of liquid fertilizers when excess algae is present
- 8) Introduce some algae-eating species (shrimps and dwarf plecs for tanks with small fish, bristlenoses and Siamese flying foxes for larger communities)
- 9) Only use algae-killer treatments as a last resort
- 10) Avoid overfeeding and leftover food

For more fascinating articles and general information on fish and fishkeeping why not visit:

www.thinkfish.co.uk

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FEDERATION OF BRITISH AQUATIC SOCIETIES

Founded 1938

Middlesex Tropical & Coldwater Fish Show

Show will be judged to FBAS show rules in full, including complaints procedures.

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Dick Mills 01753 645675
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FBAS NEWS

DEFRA UPDATE

Since the Animal Welfare Bill was first proposed, the FBAS has naturally kept a keen eye on its progress through Parliament, especially in the implications that the Bill might have on future Show scenes.

As many readers will know, the call for an initial mail-drop to MPs met with a good response from Societies and we know of one case where an MP stood up in the House of Commons to put forward our fears – it even got Corby & District A.S. a mention in Hansard.

As is the correct parliamentary procedure for Bills, the next stage was for the House of Lords to consider it and place amendments if thought necessary. This process is still in progress.

In the meantime, the federation has been busy publishing Codes of Practice for the keeping of fish in general and also for their exhibiting and sale, through auctions, as well. We have made these available to various animal care groups including OATA, the PDSA and the Pet Care Trust and it was through contact with the latter organisation that we were given two contact names in the House of Lords – Baroness Hazel Byford and Baroness Susan Miller.

Emails to these two noble ladies brought favourable replies together with an invitation to meet Baroness

Miller at the House of Lords.

It's not every day you get into a taxi and say 'House of Lords, please' but that's what Bob Esson and Dick Mills did. The reception at the Peers Entrance was not at all intimidating, even though we had to pass security checks and clarify that the Baroness Miller we were visiting was Baroness Miller of Chilthorne Domer and not Baroness Miller of Edgware.

As Question Time that day was earlier than usual we held our conversation with the Baroness and her secretary Richard Benwell in no less surroundings than the Royal Chamber. They were both sympathetic and interested in our points of view and quickly grasped how grave the situation might be should Shows need to be licensed. We felt that we had found a new ally in our battle, and it was worthwhile making the contact.

Since then, we have been updated with all the amendments that the Baroness (and her other noble colleagues) have tabled and, so far there seems little to particularly worry us. There is a possibility that Pet Shows may need to be registered each year.

More recently, Bob and Dick were invited by the Parrot Society to attend one of their meetings in Coventry as a DEFRA spokesman, Graham Thurlow,

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was due to address them and it was another opportunity to hear the latest progressions of the Bill and also hear what an actual DEFRA viewpoint might be.

We gathered that Society Shows (regardless of whatever the animal interest) would not be licensable if no trading took place. This was defined as animals being sold by people running a business and would not include the dispersal of Society members' surplus breeding stock.

During the lunch break, we managed to talk to Graham Thurlow and firstly explained what a fishy couple of blokes were doing in amongst the bird interest. We discussed our fears with him and gave him copies of our Codes of practice and suggested that he contacted us direct if he had any questions or if he had any more positive news for us.

It was again a worthwhile journey and

NEW POINTING SYSTEM TRIAL A NEW POINTING SYSTEM BEING TRIED OUT ON CHAMPIONSHIP CLASSES THIS YEAR

As a trial we are awarding a maximum of ten points for size with ten points being awarded for presentation in all tropical single fish championship classes this year.

Fish will be measured and sized as usual. Those points will then be halved. If the points total is an odd number, for example - fifteen,

quite enlightening to find so many other animal interests sharing our concerns. It seems we're all speaking from the same script - all you need to do is change the name of the animal!

On a darker side, we have received a copy of a letter by the Chairman of the British Cichlid Association to its members explaining the problems they had in mounting their last Convention at Amersham. Due to some complainant to the local Council, the BCA found themselves facing a £150 licence fee in order to hold their auction. Despite a most sympathetic local Council, who had never seen the need to licence the event before, the BCA had to have the action taken against them because someone had complained!

Now you can begin to see what we're up against and why it's worth fighting for our hobby.

halved to seven and a half, then the half point will be deducted and the exhibit will be awarded seven points.

The extra ten points thus gained will be awarded to 'presentation'. In this category consideration will be given to the cleanliness and tidiness of the container, that there are no chips in the glass or leakage of the water in

the tank, that the silicone seals are neat and tidy, the black base material, if present, is fully adhered and tidy. That, if the tank has a metal or taped frame, the corners are of the correct size. Consideration will also be given to the tank being of a suitable size for the well being of the exhibited fish, bearing in mind that if the judge feels that the tank is too small for the fish he will decline to judge that exhibit.

The water should be free of any material and any deposits of dust, dirt or excessive fish detritus or similar debris will result in a points deduction. The water should be of excellent clarity however, consider-

ation will be given to specific water conditions for the well being of the exhibited fish. For example, a killifish that is exhibited in peat-softened water.

It should be pointed out that this is a one year trial and will include the judging of the Supreme Championship Final at Hayling Island this coming October. The J&S will welcome constructive feedback on this system and comments should be made in writing to the J&S Secretary, Mr R.D. Esson whose address can be found in the current FBAS Year Book.

A TRIP TO BASE CAMP

Joan Pannell

As you all know Louis was awarded 2nd place in the Young Achiever of The Year at the N.F.O.L. in September. The award was to completely supply him with camping equipment. He was due to go to Coleman's base camp in Bristol in mid September. We all got excited about going only to be disappointed at the last minute when Sarah, who won the competition, had just started at the University of Leicester and could not get there. After this disappointment the next date was the weekend before Christmas. We were to be at Base Camp at 9.30 am on the Monday morning. We looked at the distance from Home and decided to go for the

weekend. I rang Baltic Wharf as it was the nearest site that was open but they were full until the Sunday.

We found that Devizes Club Site was open and could take us for the night. So Saturday night was spent there which turned out to be the coldest night so far with the temperature reaching -6 Celsius. Sunday morning looked as if it had been snowing everything was white. We arrived at Baltic wharf by lunchtime. The site is actually in Bristol and is next door to the ship that Isambard Kingdom Brunel designed and built. The ship had been towed back from the Falkland Islands as a



wreck, but over quite a number of years it has been renovated to its past glory, and it has put the Great into its name 'The Great Britain'. We spend that afternoon on board the ship and in the Museum. Monday morning arrived and we headed towards base camp to meet up with Sarah and her parents. We were given coffee and a catalogue of all Coleman and Gaz products. Have you ever seen two teenagers trying to decide what they would choose? We were given a guided tour of the premises which has a large showroom which has most of their products on display. After Sarah and Louis had chosen what they would like, it was time for a photo session. They both had photographs taken with the Tents, Sleeping Bags, and equipment that they had decided on.

They had expected to take some of the goodies home with them but were told

to take the catalogues home and let the club know what they wanted. This disappointment was overcome by being taken out to lunch which was very enjoyable. On the Sunday we had managed to go under the Clifton Suspension Bridge but on Monday we actually drove over it. The views were spectacular especially as the tide was out; we then made a big mistake and took the road which goes through the city centre. Our timing was way out as the rush hour was beginning. What should have been a 10 minute journey took well over an hour. Tuesday saw us travelling home to face the joys of Christmas and visits from Grandchildren. Louis is now awaiting a very large parcel from Coleman's; it also includes an inflatable boat. Heaven help us if we camp near water he's either going to be fishing or boating.



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SHOWING AQUASCAPES

New rules are now in place governing the showing and judging of aquascapes at FBAS shows. The principle differences are that fish and other animals are no longer to be shown in this class and that the use of devices such as pumps or powerheads and smoke generators is now permitted (provided they are concealed within the confines of the exhibit). Although the length and width of the exhibit remain the same, the height is now more flexible providing it is in keeping with the exhibit. Materials other than glass are also now permitted in the construction of the exhibit (with the exception of the front viewing area which must be glass). The new pointing and general guidance is shown below. For a full and complete version of the new rules see the new FBAS Constitution available very soon.

AQUASCAPE POINTING & GENERAL GUIDANCE

TERRESTRIAL PLANTS - 20

Included in terrestrial plants will be any marginal and bog plants. All plants to be correctly planted and penalties will be levied for the indiscriminate use of plants. The lie of the crowns, leaves and stems to be properly positioned. Twigs or leaf sections or branches of shrubs or trees as well as any unestablished cuttings will be severely down pointed. If no terrestrial plants are present due to the design of the aquascape the points for this section will be divided 10 to design and ten to originality.

AQUATIC PLANTS - 20

Only plants that flourish under true aquatic conditions will be shown. Penalties will be levied for the indiscriminate mix of species, the overcrowding of them, for any disease or damage to leaves or stems, snail spawn, blanket weed and algae. Floating plants should be used with discretion so as not to impair the view of the substrate. The total lack of aquatic plants will result in no points being allocated to this category.

DESIGN - 20

In this category the overall pleasing effect is assessed. The use of the substrate, rockwork, cork, tree bark and bogwood and their contribution in terms of tone and texture to the overall design should be considered. The general layout of the exhibit and the clarity of the water. Consider the balance of both the terrestrial and aquatic sections of the exhibit and that they are complementary to each other. Aquascapes that do not have a clearly definable aquatic content will be disqualified.

TECHNIQUE - 20

Points to be allocated according to the technical skill employed by the exhibitor to achieve the best possible finished exhibit with the materials used. That measures have been taken to ensure an established appearance has been achieved and that the pleasing qualities of the exhibit will last. Points will be deducted if lead weights or other supports are showing as they will for roots showing if they should not be on view.

ORIGINALITY - 20

The use of new materials, water features and ideas that are not commonplace will be rewarded in this section. Features used as part of the exhibit will be assessed and preference will be given to features made by the exhibitor. Any aids, e.g. water pumps, mist generators, must be contained within the exhibit and hidden from view.

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THE END FOR FANCY GOLDFISH?

Matt Clarke

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Will fancy goldfish be banned, but dyed fish remain legal?

The government has confirmed that a study on freak pets, including fancy goldfish and genetically modified fish, will help shape the forthcoming Animal Welfare Bill.

The study titled Breeding and Welfare in Companion Animals has been produced by the Companion Animal Welfare Council (CAWC) and emphasises the many problems that occur in pets through selective breeding.

According to a report in The Times, Ben Bradshaw MP, the minister responsible for animal welfare at the Department for Environment, Food and Rural Affairs (Defra) has received a copy of the CAWC report and has confirmed that it will be used in some parts of the new Animal Welfare Bill.

Bradshaw told The Times: "The CAWC report is particularly well-timed, given the opportunity the Animal Welfare Bill offers to

government to support measures to raise breeding standards."

The report says that there has long been a drive for novelty by breeders who produce pets, and not long after species are first bred in captivity new colour morphs and other strains that differ from the wild type are produced and start to be selected. Fancy goldfish, which have been



selectively bred for centuries and modern forms such as genetically modified fish like the Glofish, are mentioned in the report.

Citing a reference in the book "Goldfish: A Complete Pet Owner's Manual" by Marshall Ostrow, the report says that Oranda goldfish, which have a fleshy crown on the top of their heads may develop

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bacterial and fungal infections as debris settles in the folds, which has the potential to cause "chronic pain and irritation".

Veiltail goldfish, which Ostrow called "one of the most beautiful strains... and also one of the weakest" are said to be "at risk of injury and infection" because the fins are delicate: "In this case, it would seem that it is the feature that is selected for - the delicateness of the tail - that results in the welfare risk."

"The Water-Bubble Eye goldfish has been selected for upturned eyes surrounded by very large fluid-distended periorbital skin sacs, which at maturity obscure vision and hamper swimming. This variety may also lack a dorsal fin and have a double tail fin. Because the eye sacs can rupture easily, leading to pain and infection, it is recommended by aquaculturalists that there should be no sharp objects in their aquaria.

"The telescope form of the eyes of the telescope goldfish are inherited as a recessive trait and begin to protrude from the head at six months of age until they extend as much as 2cm from the head in adults. These protruding eyes may be at greater risk of damage through trauma."

No mention is made in the report to the frequently criticised production of Parrot cichlids, or to dyed fishes. Defra confirmed to Practical Fishkeeping in February 2006 that dyed fish would be illegal to produce in the UK but would remain legal to sell under the Animal Welfare Bill as this is intended to cover only animals mutilated in the UK.

It is not yet known whether this means that the forthcoming Animal Welfare Bill will potentially curb the sale of selectively-bred fancy goldfish but allow the sale of fishes that have been tattooed or injected with coloured dyes, or how the legislation will affect other selectively-bred fish produced for the aquarium trade overseas.

The author would like to point out that, at this time this is not a firm proposal but it could be considered for the future.

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