

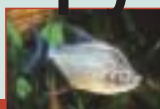
Aqualognews

THE JOURNAL FOR AQUARISTS

NO 69



Glasfer



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Dear Reader,

Once again we have an issue full of news for you. Our Top Ten shows that the term "aquarium fish" is truly a very far-reaching concept. John Dawes reports on new research on the piranhas, and in the terrarium-hobby section we cover little-known reptiles and amphibians from Japan. The cultivated forms of the guppy show how fashions change, and with them the tastes of aquarists. The News also brings you the latest on the hybridisation of *Synodontis* in Russia and attractive new fishes for the reef aquarium. Fresh-water hermit crabs have been imported for the first time – and the News brings you the story. A new dwarf characin, and tips on how to avoid mistakes in the garden pond in spring, round off this issue. Hopefully something for everyone! Happy reading!

Happy reading!
Your AQUALOG News Team

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Cover photo:

Pygocentrus nattereri is by far the commonest piranha in the aquarium hobby and is bred in large numbers. Unlike the *Serrasalmus* species, also known as piranhas, which are solitary fin-eaters, the members of the genus *Pygocentrus* are shoaling fishes, and several should always be kept together.

photo: H.J. Mayland / Aqualog archives

Preview:

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TOP TEN

Top Ten: England

The Top Ten for this News comes to us from across the Channel. For decades England has been famous for its enthusiastic aquarists who sometimes travel all over the world searching for fish species not yet available in the hobby. As a result a number of importers in England have specialised in importing rare and expensive fish species. One of them is Tom Halvarson, who has sent us his Top Ten of rare fishes – for which our hearty thanks.

In first place in the Top Ten we find a wonderful snakehead, *Channa aurantimaculata*. (As with most rarities there are no common names for some of the fishes in this selection.) *C. aurantimaculata* comes from the north of India and grows to around 40 cm long. The males are usually more attractively coloured than the females, but otherwise external sexual differences are difficult to detect. As with all snakeheads, whether or not they can be kept with other fishes is a bit of a lottery. This applies to both conspecifics and fishes of other species. When the males feel inclined to breed, in particular after water changes, they can run amok and kill all the tankmates with whom they have previously lived in harmony, maybe for months or even years. Breeding has already been achieved in the aquarium.

Discus (second place) cannot generally be regarded as rarities; there are relatively few fish species that are bred in



such vast numbers for the aquarium hobby. But wild-caught specimens from certain rivers, and which also exhibit a particular colour pattern, are still considered real "delicacies" by aficionados prepared to dig deep in their

relatively closely related to the latter and by contrast only distantly to the snakehead. This pike cichlid is in fact relatively widespread (from Peru to the lower course of the Amazon), but is rare in museum collections as well. Unlike most *Crenicichla*, this gorgeous species, which grows to a maximum of 40 cm long, exhibits no particularly marked sexual dichromatism. Females remain smaller.



pockets for them. Blue discus (ie *Symphysodon aequifasciatus* with blue stripes in the anal fin) are termed "Royal

We have another cichlid in fourth place: *Thorichthys aureus*. This close relative of the well-known firemouth cichlid (*T. meeki*) is available only as tank-breds, as there are no commercial exports from its home region in Central America (it occurs from Belize to Honduras, in Atlantic-slope drainages). This up to 15 cm long, comparatively peaceful fish is a typical pair-forming open-brooder. However, the species hasn't been in the aquarium hobby all that long, and hence unexplained "glitches" occur now and

Blue" if they also have horizontal blue stripes on the body, extending from the head to the caudal peduncle. The collecting areas for blue discus invariably yield only a few such fishes. At present Royal Blues from the Rio Moju are particularly sought-after.

Third place goes to *Crenicichla cincta*, a cichlid that has more in common with the snakehead than with the discus, although it is

TOP TEN

- 1 *Channa aurantimaculata*
- 2 *Symphysodon aequifasciatus*
„Royal Blue“
- 3 *Crenicichla cincta*
- 4 *Thorichthys aureus*
- 5 *Lates niloticus*
- 6 *Hydrocinus vittatus*
- 7 *Mikrogeophagus ramirezi*
„German bred“
- 8 *Lophisilurus alexandri*
- 9 *Himantura signifer*
- 10 *Osreoglossum ferreri*

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then during breeding.

Fifth place goes to a real giant: *Lates niloticus*. Up to 190 cm long and 200 kg in weight, this fellow, commonly known as the Nile perch, is sold as a food-fish. Not surprisingly it is the interestingly-patterned juveniles that are imported for aquarium maintenance. They are predators which prefer to feed on live fish. They are peaceful among themselves and towards fishes too large to be regarded as food.



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Hydrocynus vittatus (sixth place), by contrast, is one of the tigerfishes of the rivers and lakes of Africa and will attack practically any fish when hungry. If the prey is too large to swallow, it bites a chunk out of it. So anyone who wants to keep this up to 100 cm long and 28 kg in weight shoaling fish in company must fit in with its requirements and, if possible, make sure it never gets hungry! It is very interesting to note that juveniles of this species are very similar in coloration to some *Alestes* species. Perhaps this is so they can creep up on an unsuspecting victim while mingling with a shoal of harmless *Alestes*.



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relatively small aquarium, as it doesn't move around much. These fishes are peaceful among themselves.

Ninth place goes to *Himantura signifer*, one the small number of fresh-water rays from Asia. This stingray has a very long

tail and attains a body diameter of around 40 cm, and hence is suitable only for really large aquaria. Although it wanders a long way into fresh water, brackish water (around 10 g salt per litre) is advisable for the acclimatisation period.

In conclusion another predator, this time one that lives at the surface: the black arowana, *Osteoglossum ferrarei*, takes tenth place. At up to 100 cm long, this fish is again larger than the average aquarium fish. Preferred foods are other fishes and large insects. Juveniles can be rather tricky.

In seventh place we have a little jewel: the butterfly dwarf cichlid or ram, *Mikrogeophagus ramirezi*. The situation here is similar to that described earlier for discus. There is no shortage of this species, but top quality selectively-bred fishes are difficult to obtain.

A professional breeder in Germany has specialised in breeding these aquatic jewels and is producing splendid specimens that are achieving top prices as "German-bred".

Eighth place is once again occupied by a very unusual fellow: *Lophisilurus alexandri*. Anyone seeing this up to 40 cm long fish for the first time mentally runs through all sorts of possibilities: Angler fish? Toadfish? Or could it be an old dishcloth?!

In actuality it is a catfish which has specialised in hunting by lying in wait. A monster like this can in fact be kept in a

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FISH OF THE MONTH

PIRANHA

by John Dawes

Voracious, vicious, infamous, terrifying, nightmarish... These are just a few of the numerous labels that have been used over the years to describe the 35 or so species of piranha. But are they justified or unjustified? Well, it all depends what we are talking about.



The most feared piranha species is *Pygocentrus piraya*, up to 50 cm long and endemic to the Rio Sao Francisco in Brazil. One has only to look at the “beefy” lower jaw of the half-grown specimen in the photo to understand its notoriety. photo: Sch. Nakano

If we are referring to the feeding frenzy of a shoal of famished piranha of certain species, then, yes, in human terms, at least, these and many other descriptions spring to mind. Yet, the same could be said of many other animals, including our best-known pets, but no-one would dream of using such strong language when it comes to dogs or cats; at least, not under everyday conditions. However, under certain exceptional circumstances, even a modest-sized tame dog or cat can be highly dangerous and can inflict serious injuries.

Well, up to a point, the same applies to

piranha. Many of us, for example, have spent time in so-called ‘piranha-infested’ waters with no fear...and with little risk. Change the conditions, though, and enter the water with an open wound, or walk into a pool where hungry, highly stressed piranha are trapped owing to receding flood waters, or simply take a piranha out of water, and the situation could be very different indeed.

For example, a friend of mine with whom I once travelled on the Rio Negro had his forefinger severely cut by a very small piranha when he grabbed hold of it. Similarly, many of the caboclos I’ve met in

the Amazon have had toes missing or chunks of calf muscle bitten off by piranha which they’ve fished and then left to flap about on the bottom of the canoe.

The undeniable fact is that flesh-eating piranhas have superb dentition that has evolved over countless generations into what has become an excellent cutting implement. The teeth fit so well together that they function as a single unit which slices through flesh with amazing ease and speed. Remarkably, if one or more teeth are damaged, then the whole set will eventually re-grow, thus restoring the integrity and ‘unity’ of the set.



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This does not, however, mean that piranha – even the more famous species – are strictly carnivorous or piscivorous. In fact, a recent study of the best-known species of all, the redbelly piranha (*Pygocentrus nattereri*) and the white piranha (*Serrasalmus aff. brandtii*) has revealed that around one third of their diet consists of vegetable matter. This is a surprisingly high percentage for so-called out-and-out predators.

This finding is of great significance, not just in terms of re-focussing our traditional image of piranha, but also in terms of how we should approach their upkeep in aquaria. It is obvious that we should now regard vegetation as an integral part of the menu. It is also possible – perhaps likely – that, as a result, we will enjoy greater captive breeding success with these challenging species in the future.

Despite their undoubted predatory instincts, piranha (in general) are rather timid species, especially in aquaria. They don't like excessively bright lights and undoubtedly benefit from the provision of adequate shelter in the form of clumps of vegetation, bogwood branches, caves, etc. They should also be provided with soft, neutral to slightly acid water, a temperature in the mid-20's°C and good filtration.

And finally...piranha (genera *Serrasalmus* and *Pygocentrus*) belong to the family Characidae, subfamily Serrasalminae,



Serrasalmus spilopleura prefers to feed on fins.

photo: Sch. Nakano

which they share with species like the wimple piranha (*Catopristion mento*), the spotted metynnis (*Metynnis maculatus*), the pacu or tambaqui (*Colossoma spp*) and others.

However, their classification is still a matter of considerable debate and is certain to 'evolve' further as we continue to discover new things about these quite remarkable fishes.



The wimple piranha, *Catopristion mento*, has specialised in scale-eating.

photo: B. Migge

TERRARISTIC

Sayonara, Holtmann san!

Terrarium animals from Japan

by Thorsten Holtmann

The isolation of Japan, as an island, means that it is home to a particularly large number of endemic species, ie species, that are found only in Japan. Japanese amphibians and reptiles do not form part of the standard stock of the pet trade, as many species are available only seasonally. Three of these species are portrayed in rather greater detail in this article.



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M*mauremys japonica*, the Japanese swamp turtle, is a real gem of a terrarium animal from the Land of the Rising Sun. At first glance it is strongly reminiscent of the tortoises of the genera *Cyclemys*, *Geoemyda*, *Heosemys* and *Pyxidea*. Features shared with these tortoises are the basic colour of the shell,



the relatively shallow-bodied form, the nick in the posterior edge of the shell, and the large, expressive eye. By contrast, the Japanese swamp turtle differs completely in having a very characteristic long "mouse-tail".

The Japanese swamp turtle resembles the tortoises not only in its external appearance, but also in its maintenance requirements. The external similarities are no coincidence! Thus the Japanese swamp turtle is no sun-worshipper, but rather a creature of the shade, as is indicated by its large eyes. In the terrarium - or rather the aqua-terrarium - this characteristic is very convenient, as it means heat lamps are superfluous. The maintenance temperature

for the Japanese swamp turtle should be between 18 °C (at night) and 25 °C (by day). It won't hurt if the temperature in summer rises a little higher, but in that case a shaded position for the container is important. In winter a rest period at significantly reduced temperatures (8-10 °C) will do these animals a lot of good.



Mauremys japonica is a very docile, but at the same time lively turtle. Maximum length is around 20 cm. They are omnivores with a marked emphasis on meaty foods.

Another real treasure among the Japanese terrarium animals is *Takydromus smaragdinus*. These are dainty, splendidly coloured little lizards with very long tails, and are noted for their extreme agility and fleetness of foot. For this reason, in spite of their small size (total length may be around the 15 cm mark, but the body is barely 5 cm long) the terrarium shouldn't be too small. In particular, *T. smaragdinus* is a species that likes to climb, so the terrarium should be at least 70 cm tall. There are other, additional reasons why the terrarium shouldn't be too small.

On the one hand *T. smaragdinus* requires a half-moist terrarium, in which the relative humidity should never drop below 60%, and on the other it requires dry places to "sun" itself, where the temperature reaches around 35 °C during the day. This can be achieved with a spot-lamp.

A reasonable volume is required so that the entire terrarium doesn't dry out too rapidly because of the overall temperature rising dramatically (the maintenance temperature, outside the "sunny" area should be around 24 °C; at night it should drop significantly, 18 °C is the figure to aim for).

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Even so, these small lizards can be maintained in a fairly small terrarium.

The beautiful emerald green coloration is restricted to males; females have a brown back instead. Because in the long term males can be very intolerant of one another, these lizards are best kept in pairs or as a male with several females. Reproduction is via eggs.

Like the majority of lizards, *Takydromus* species feed mainly on arthropods, which in practice means small crickets and fruit-flies (*Drosophila*). Because these tiny food animals are real escapologists, the terrarium for *Takydromus* should be designed as described, for example, for poison-arrow frogs (*Dendrobatidae*) in the literature.

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The final stop on our journey through the colourful world of Japanese terrarium animals is a frog, specifically the Japanese aquatic frog, *Rana porosa*. This very attractively marked frog attains a length of around 8 cm. The species associates with human habitations in Japan and is correspondingly widespread and commonplace.

Its coloration is variable like that of our native green frogs. Details of the maintenance of such frogs in the aquaterrarium has already been covered in detail in AQUALOG News 67.



Magnificent flowers for the garden pond
Iris, Primulas, and Waterlilies
by Axel Gutjahr

If you too are now filled with the desire to keep terrarium animals from Japan then your pet dealer can undoubtedly order

Lots of people aren't satisfied with a garden pond that livens up the garden landscape from spring to autumn with fresh green shades alone. It should display plenty of "bright splashes of colour" as well. Such bright splashes of colour are mainly provided by the flowers of a wide variety of marsh and aquatic plants.

Species ideally suited for cultivation in and around the garden pond include numerous representatives of the iris and primula families, and, of course, the waterlilies. All provide a fantastic floral display. The skilful combination of members of these families can be used to ensure that from the end of March to the beginning of September there are always flowers in and around the garden pond, with the intervening greenery providing an attractive colour contrast. For the past 20 years Axel Gutjahr has been heavily involved with garden ponds, with a particular interest in plants. In this book he not only presents numerous splendid-flowered irises, primulas, and waterlilies in words and pictures, but also provides valuable hints on their siting and cultivation requirements, and thus the basis for the successful culture of these plants.

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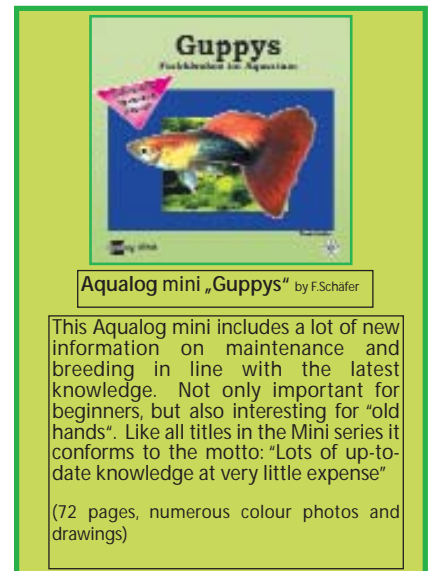
The latest from the guppy scene

by Roman Neunkirchen

The guppy is known in a whole series of caudal-fin forms that have been standardised by guppy breeders. As a rule, however, such cultivated forms are found only among private breeders. The delta-tail guppy dominates in the pet trade to such an extent that aquarists who know nothing much about guppies can easily get the impression that these are the "guppy norm". Recently, however, there has been a deviation from this trend. A number of the forms recently available from professional breeders are shown here.

Double-sword guppies are an old cultivated form. Even among many wild guppies it is possible to detect hints of upper or lower swords - ie a pointed

so-to-speak a double-sword in which the space between the swords has been filled with fin material. This "fan-tail" caudal-fin form derives from the combination of a



Moreover there are no sword-type females among the newly developed double-sword forms in the trade.



Guppy, cultivated form "double-sword blond"



Guppy, cultivated form "double-sword metallic"

extension of either the upper or the lower margin of the caudal fin. The double-sword was developed from these by appropriate selective breeding. The first reports of double-swords date from 1928, and a few years earlier specimens with clear tendencies towards double-swords appeared in illustrations. By contrast the delta-tail guppies so prevalent today didn't come into being until the late 1950s and early 1960s.

Interestingly, however, the double-sword was a direct precursor of the fan-tail, from which in turn the modern delta-tail guppies were bred. The fan-tail - as can be demonstrated by experimental crossing - is

particular colour gene with the gene for the double-sword.

The double-sword guppies seen at exhibitions are usually graceful creatures and the swords extend to needle-sharp points. By contrast those produced by the professional breeders look very robust, and in this respect are highly reminiscent of the delta-tail guppies. This impression is reinforced further by the broad, rounded fin-tips.

Perhaps these guppies were crossed with delta-tail females, while the classic "sword type" among females tends to be a slender fish with a transparent caudal fin.

In addition, the black dorsal fin is a very attractive characteristic of the colourful males pictured here (for purely technical reasons the coloration of the fish has to be described as grey colourful), and an uncommon feature by no means seen in all males of the strain.

There is a second trend - in completely the opposite direction - among the professional guppy breeders. As in many other areas, there is a "back to nature" tendency in the aquarium hobby. And so the breeders are satisfying the corresponding demand for pure-blooded wild forms. It happens that in the guppy each male is individually variable in



Wild guppy, aquarium population "Venezuela"

coloration, but certain colour patterns are typical of individual populations. Using appropriate selective breeding it is thus possible to make sure that all males look more or less identical, including in wild

strains. But this doesn't correspond to what happens in nature. In the wild it is a complex permutation of various factors that determines what guppy males look like. One very important factor is female choice. Specifically, by preference females

allow only the most colourful male to inseminate them. Hence the colours are displayed to particularly good effect by the complex and fantastic to watch courtship of the males. One factor which tends in the opposite direction is predation pressure. The greater the number of predators sharing the habitat of the guppies, the paler the colours of the males become, because particularly colourful males get eaten more rapidly and hence have less breeding success (descendants). Finally, population size determines the degree of colourfulness. Where there are very large numbers of guppies there is fierce competition among the males. In such cases inconspicuously coloured, so-called "sneaker males" soon emerge, who without any courtship sneak in and inseminate females already stimulated by other (colourful) males. Such sneaker males are, of course, less important in determining coloration than female choice and predation pressure.



Guppy, cultivated form "double-sword coloured"

In sufficiently large aquaria it is possible to study how male coloration develops if the breeder doesn't interfere. This is quite enthralling to watch and provides a picture that changes almost daily. An experience not to be missed!

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FANCY FISHES

"Synos" en vogue *Synodontis-Hybriden*

by Harld Jahn



This *Synodontis* hybrid from Russia looks very similar to the true *Synodontis vellifer*.




With around 120 species currently regarded as valid, the genus *Synodontis* truly has sufficient to offer any aquarist interested in catfishes. Some species remain small at around 8 cm, for example the well-known upside-down catfish (*S. nigri-ventris*), while others, such as *S. acanthomias*, attain around 60 cm in length. Some are very attractive, for example *S. flavi-taeniatus* and *S. angelicus*, others rather colourless, as in the case of *S. schall*. Sometimes they also have attractive elongated fins, as in *S. eupterus*.

The cultivated forms of *Synodontis* all come from Russia, where around 10 years ago an intensive breeding program for *Synodontis* was initiated in order to meet the demand, which couldn't satisfied by imported fishes alone. Hormone




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 <p>From Paraguay: <i>Leporellus vittatus</i>. A very attractive relative of the headstanding tetras. Size up to 12 cm, very rare, relatively peaceful.</p>	 <p>European bred: <i>Poecilia wingei</i>. This species of livebearer has been described quite recently as a valid species. Called "Guppy Caracas" in the trade.</p>	 <p>From Brazil: <i>Pterophyllum leopoldi (dumerili)</i>. Actually some wild collected angels are available, among them the beautiful <i>P. leopoldi</i>.</p>	 <p>From Vietnam: <i>Sewellia lineolata</i>. Suckerhill loaches are usually not very colorful. This species is an amazing exception from that rule!</p>

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Synodontis eupterus was undoubtedly one of the parent species of this hybrid.

stimulation, such as has been used worldwide with food-fishes for decades, was utilised in these breeding efforts. Where food-fishes are concerned nothing to do with (re)production can be left to chance, let alone Mother Nature.

Initially it was popular species such as *Synodontis flavitaeniatus*, *S. eupterus*, and *S. nigrita* that were bred. For reasons unknown the breeding of *S. angelicus* has not as yet been achieved

Over time the techniques were perfected, and one of the rarer species, *S. filamentosus*, was also successfully bred. Precisely what the reasons were for experiments in hybridisation remains unclear. Perhaps it was simply a desire to experiment, as *Botia* species have also been (and still are) crossed in Russia. And

there is nothing wrong with crosses per se. Problems arise only if these fishes – whether intentionally or by accident – are sold as “new”

species or under falsified species names. A hybrid should always be identified as such, anything else smacks of fraud.



The underside of this hybrid is light-coloured.

Be that as it may, the two hybrids shown here are attractive fishes. That with dark spots on a silvery white background looks very similar to the true *S. velifer* (a species to date not accessible to the aquarium hobby). The hybrid with the dark reticulated pattern is also interesting in that it belongs to the facultative “back-swimmers” and accordingly has a dark-patterned underside.



Just like *S. eupterus*, this hybrid also swims around on its back, entirely according to its mood and inclination
 all photos: F. Schäfer



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It doesn't have to be colourful to be interesting.....

Fusigobius inframaculatus

by Peter D. Sicka

Gobies are among the most attractive and most interesting of all fishes. There are many hundreds of species, the majority of them living in the sea. A very large number grow little longer than 10 cm and hence are also well suited to the aquarium in terms of size.



Fusigobius inframaculatus

The goby genus *Fusigobius* contains 11 species, all of them distributed in the Indo-Pacific. They look rather similar to one another, as reflected in the fact that until 1978 only a single species was known and five species were described as recently as 2001. The 9 species of the genus *Coryphopterus* from the western Atlantic and eastern Pacific are rather similar, and



Nemateleotris decora

Fusigobius is also sometimes combined with them to form the single genus *Coryphopterus*.

All species remain small (as a rule 4-5 cm,



Chrysiptera hemicyanea all photos: F. Schäfer

only one species grows to 8 cm long).

The common name "sand gobies" is a clear indication of the preferred habitat of these gobies: sandy surfaces, sometimes also with scattered rocks. Unlike many other gobies, *Fusigobius* don't live in caves. As a result they don't exhibit any brilliant colours. Nevertheless, in a small marine aquarium (in this case at the aquarium and terrarium club Hottonia in Darmstadt Germany, where they are maintained by Wolfgang Feist) there is no doubt that in the eyes of the observer these little fishes stand out among their gaudily-coloured tankmates, such as *Chrysiptera hemicyanea* or *Nemateleotris decora*. Of course, at first the gaze of the visitor is drawn to the more colourful species. But once *Fusigobius inframaculatus* has been spotted, its pastel colours and the wonderful orange spots are all the more enchanting. *Fusigobius* is peaceful towards other fishes, and doesn't molest lower life-forms. The specimen at Hottonia is a male, recognisable by the prolonged first dorsal fin.

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CRUSTACEANS

Fantastic crabs from Nigeria

Hermit and other crabs

by Frank Schäfer

Never before in history of the aquarium and terrarium hobbies has there been such a wide variety available to fans of small creatures as there is today. Exporters and importers are untiring in their efforts to keep finding new species well suited for maintenance and breeding.

Terrestrial hermit crabs have been known for a long time - but hermit crabs in fresh water? We could hardly believe it when the consignment arrived at



Clibanarius africanus

Aquarium Glaser. According to the supplier, these crabs were collected in completely fresh water in the Majidun river near Ikorodu in Nigeria. It was fairly rapidly clear that they must be a member of the genus *Clibanarius*. A large number of species of these small hermit crabs are to be found widespread in warm seas close to the shore. They are closely related to the genus *Pagurus*. The two genera can readily be distinguished in that in *Clibanarius* both claws (chelipeds) are around the same size, while in *Pagurus* one cheliped is always noticeably larger than the other.

In the Nigerian hermits this distinction isn't quite as clear-cut, as in practice their chelipeds aren't exactly the same size. But thanks to the help of Stephen Dunbar and Chris Tudge, two scientists who work on hermit crabs, it was eventually possible to identify these animals unequivocally as *Clibanarius africanus* AURIVILLIUS, 1898. The species is fairly widespread along the Atlantic coast of Africa and is found from Liberia to the Congo. They have also previously been reported from fresh- and brackish-water habitats. A second *Clibanarius* species from this region, *Clibanarius cooki* RATHBUN, 1900, can be distinguished from *C. africanus* by its hairier legs, and in addition exhibits no banding. I would like to take the opportunity to offer my heartfelt thanks to Stephen Dunbar and Chris Tudge for their help with identification!

The majority of the hermits arrived in the brown shells of the snail *Tympanotonus fuscatus*, with just one individual in a white snail-shell; the specific identity of the former occupant has yet to be determined. In the meantime *T. fuscatus* has also been imported alive from Nigeria. This snail is a typical brackish-water



Goniopsis pelii

resident, found on mud in mangrove swamps. All inhabitants of mangrove swamps need to be fairly tolerant as regards the salinity of the water, as in these habitats conditions can change very rapidly from completely fresh to full-strength sea water,

and vice versa. It has been found, however, that in practice it is inadvisable to rely too heavily on this tolerance in the aquarium. An aquarium is not the natural habitat and there are all sorts of micro-organisms, very important for the functioning of an aquarium, that do not thrive under

fluctuations in salinity. Once the bacterial population has been compromised, highly toxic metabolic by-products such as ammonia and nitrite rapidly accumulate in the water. In addition, it appears that nitrate, for example, is fairly harmful to brackish-water animals in completely fresh water, while a comparable concentration is completely harmless if salt has been added. Hence it is more sensible to maintain *Clibanarius africanus* (for which the name African mangrove hermit crab is suggested) and *Tympanotonus fuscatus* (perhaps "brown mangrove snail") in brackish-water aquaria, even though in theory they can live in completely fresh water.

If these hermits are kept in an aquarium then it will soon be seen that they frequently leave the water. However, this isn't essential in their case, in stark contrast to the three "normal" (non-hermit) crab species from Nigeria which I would like to take the opportunity to present briefly here as well. All three species were collected in the famous lagoons near Lagos. Thus these crabs too are euryhaline creatures, which

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*Perisesarma huzardi*

can cope with sea water just as well as with fresh. But in their case too maintenance in brackish water is again strongly advised. Note: the larvae of all the crabs presented here, ie the hermits as well as the normal crabs, can develop only in full-strength sea water.

As mentioned earlier, all the crabs presented here should be kept in an aqua-terrarium. Of the three, the splendid *Goniopsis pelii* requires the most space as it is a large, active species, with a carapace width up to easily 8 cm. Because they can be somewhat quarrelsome among themselves, it is advisable to keep them in pairs. Like all the crustaceans discussed here they are

omnivores, whose feeding presents no problems at all.

Although it is dull in appearance, *Perisesarma huzardi* is a rather peaceful crab. With a carapace width of around 6 cm it is in fact double the size of the well-known red mangrove crabs, but is nevertheless easy to keep.

Uca tangeri is the only fiddler crab species that is also found on European soil, in Portugal. These gorgeous, around 6 cm wide, crabs are easy to keep, but rather timid. Fiddler crabs require rather smaller food than the other species.

*Uca tangeri*

alle Photos: F. Schäfer

TIERÄRZTE IN IHRER NÄHE

Mit Hunden, Katzen, Vögeln und Nagern findet man im Notfall schnell und überall einen kompetenten Tierarzt. Mit kaltblütigen Pfleglingen ist das nicht so einfach. Die Tierärzte in dieser Rubrik haben sich neben der normalen Ausbildung speziell für Fisch-, Reptilien- und Amphibienerkrankungen fortgebildet - zum Wohle Ihrer Pfleglinge!

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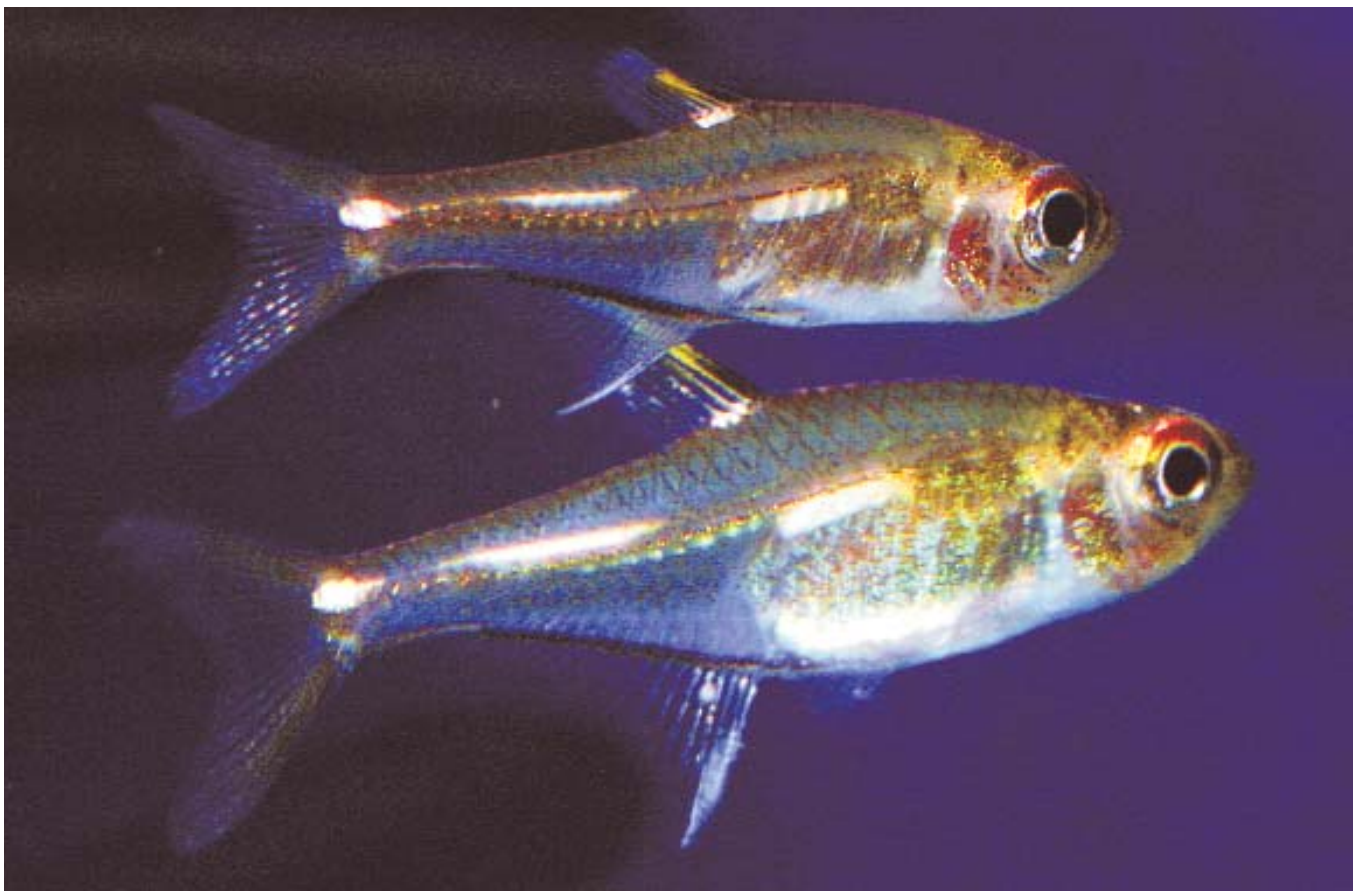
An as yet undetermined dwarf characin from Peru

by Ursula Glaser-Dreyer

It is always very exciting when a fish species that appears on the exporter's list under a "made-up" name arrives in Germany. And this characin was no exception. It commanded a stiff price.

Would the risk prove worthwhile, or would this "novelty" turn out to be an overpriced flop?

Immediately after unpacking this question still remained unanswered. In shock after the long journey, the newly arrived dwarfs (none was longer than 1.5 cm) just "sat" in the quarantine aquarium at Aquarium Glaser. But by as soon as the next day it became apparent that in this case the importation was a real success story. The delicate little fishes had all recovered well and were already beginning to display to one another the way characins do. It was thus clear that these dwarfs were already sexually mature! On closer examination the somewhat smaller and





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slimmer males were readily distinguishable from the females. The most striking colour characteristic in the new species (about whose identity we are totally in the dark) is the three shining bars on the sides of the body. In addition the deep-red upper half of the iris is strongly contrasting. There is a further metallic marking at the base of the dorsal fin, and the fin itself is black-yellow patterned. The species is provisionally labelled "*Aphyoditeina gen. sp.*" The characin experts Martin and Peter Hoffmann have suggested the common name "bright-banded characin".



POND

The pond awakes

by Manfred Appel

At the beginning of March winter still has Nature in its grip in large parts of central Europe. The garden pond is frozen over and the pond-owner, wearing a worried look, hopes that he did everything correctly last autumn to ensure the survival of his fishes and other livestock.

There is no doubt that the appropriate preparations for winter are very important. In particular, the layer of decomposing material on the bottom (mainly dead plant material) is not too thick. Autumn leaves and bits of twig are relatively easy to remove, but the often considerable masses of algae shouldn't be neglected, either, despite the greater effort needed to deal with them. The decomposition of plant material removes a huge amount of oxygen from the water, and this can cause serious problems, particularly when the pond is frozen over. As is well known, by far the major part of oxygen uptake into the water takes place via surface movement.

On the other hand autumn is the time when the foundations are laid for algal growth in the following year. That is to say, if the dying algae are left in the water in autumn, they will rot away almost completely, leaving behind only their reproductive spores.



The nutrients bound up in the algae go into solution in the water and thus ensure the food supply necessary for a wonderful abundance of algae in the spring, when they will immediately burgeon rampantly.

If this happens the worst possible thing you can do is to perform a large water change on the pond. That will completely upset the entire biology of the pond. No, the only way now to deal with this year's algae bloom, and to prevent the problem in years to come, is continual, meticulous removal of this year's crop of algae.

Another favourite mistake is to start feeding the fishes in the pond again too early. After all, the "poor" creatures have gone hungry for so long. The worst case scenario is that

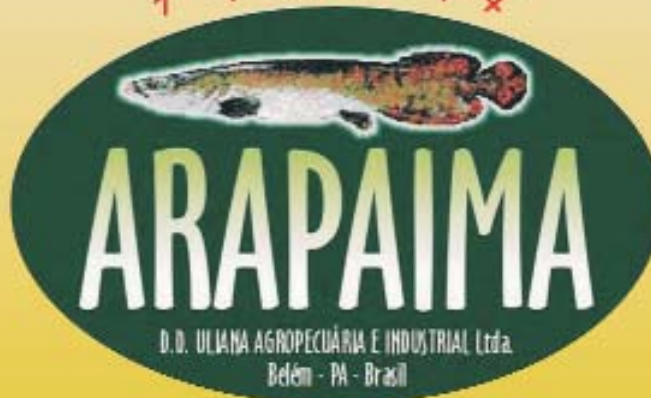
premature feeding can actually kill the fishes. Specifically if they are given roughage-poor, protein-rich food and a further cold snap then ensues. In such cases it can happen that the food begins to decompose in the gut and causes it to rupture. More frequently, however, the fishes don't absorb many nutrients from the food at all and they are expelled with the faeces. This creates a top-notch algae fertiliser! Goldfishes and koi should be given food again only when the water temperature is stable at around 15 °C. Prior to that they can make do with any natural foods they can find in the pond.



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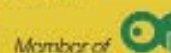
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The latest supplements

by Erwin Schraml

Each of the large, comprehensive AQUALOG lexica contains all the species, subspecies, and variants known from the relevant group at the time of going to press. But new species are constantly being discovered (not uncommonly because of the AQUALOGs, without which the necessary comprehensive comparisons would be almost impossible). These new forms are published as supplement sheets, so that your AQUALOG will remain an up-to-date and comprehensive work of reference for years to come. This time the supplement sheet is for the AQUALOG pictorial lexicon Loricariidae: all L-numbers.

What are AQUALOG supplements and how can you obtain them?

Each supplement sheet (6 sheets are published every year) comprises 8 pre-perforated photos printed on self-adhesive material, which can be affixed to the spare pages provided for the purpose at the end of every AQUALOG lexicon. Subscribers to the News (See page 3 for subscription form) receive these sheets automatically with the News.

The updating of the L- and LDA-numbers continues.

LDA81 is a *Peckoltia* species, which Aquarium Glaser has obtained from Brazil via Manaus. These fishes have very broad, black, wavy stripes on a golden-yellow background. In larger specimens the head is likewise decorated with vermiform lines, while in young individuals these stripes are straight and the lateral bands somewhat narrower. The dentition in the lower jaw is slightly reduced with around 15 teeth each side.

From the Rio do Pará in the vicinity of Portel comes LDA82, a species of the genus *Baryancistrus*. These fishes are particularly reminiscent of L84 from the Rio Tocantins and L133 from the lower Rio Tapajós, as they have a similar yellowish base colour. As in L133, the membrane on the posteriormost spine of the dorsal fin is barely visible, while in L84, by contrast, it is very prominent.

Hypostomus-like armoured catfishes, characterised by a slender body form almost reminiscent of *Squaliforma* species, and by two series of dots between each ray in the dorsal fin, are imported from Venezuela as well as Belem/Brazil. In these fishes the intensity of the markings varies considerably depending on mood. Despite their variable origin they all appear to be the same species, which has been given the LDA-number 83. The relatively large nares are striking: those of other, rather similar loricariids are shorter.

Ergänzungsbogen für /Supplement for AQUALOGnews NO 69 (2/2006) Art.No. 521-2



SECRET 1 LDA81 *Peckoltia* sp. D.A. 4/2004-23
ROZ: 261-1 Brasilien/Manaus, W. 12 cm
Photo: Erwin Schraml



542481-3 LDA81 *Peckoltia* sp. D.A. 4/2004-23
ROZ: 261-1 Brasilien/Manaus, W. 13 cm
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SECRET 4 LDA81 *Peckoltia* sp. D.A. 4/2004-23
ROZ: 261-1 Brasilien/Manaus, W. 12 cm
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542481-4 LDA81 *Peckoltia* sp. D.A. 4/2004-23
ROZ: 261-1 Brasilien/Manaus, W. 12 cm
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SECRET 3 LDA82 *Baryancistrus* sp. D.A. 4/2004-23
ROZ: 262-1 Brasilien/Manaus, W. 12 cm
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SECRET 4 LDA82 *Baryancistrus* sp. D.A. 4/2004-23
ROZ: 262-1 Brasilien/Manaus, W. 12 cm
Photo: Erwin Schraml



542483-3 LDA83 *Hypostomus* sp. D.A. 4/2004-23
ROZ: 263-1 Venezuela (VZ), MC (MC) 12 cm
Photo: Erwin Schraml



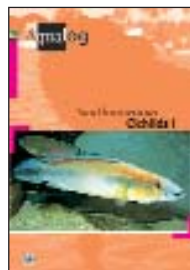
542483-4 LDA83 *Hypostomus* sp. D.A. 4/2004-23
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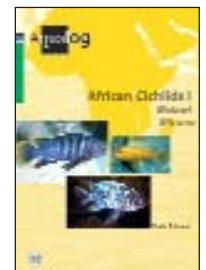
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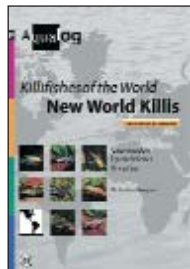
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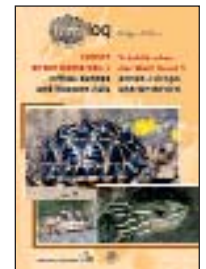
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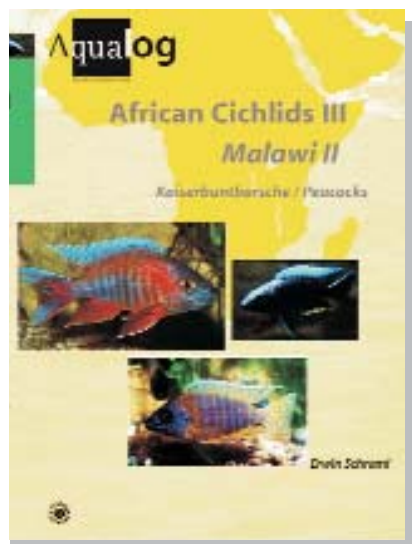
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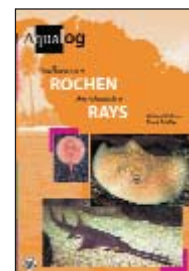


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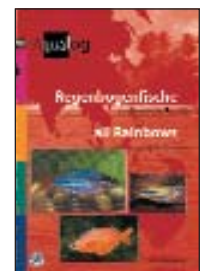
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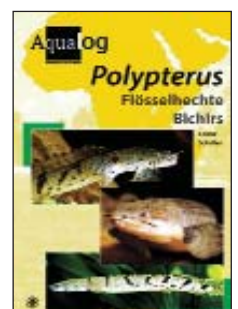
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