

# UnderWater



The Official Newsletter of the Iowa Aquaria Association

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**COVER:** [Glyptoperichthys gibbiceps](#), by [Brett Dailey \(physicsboy\)](#)

**INSIDE:** Species Profile: [Aulonocara stuartgranti](#), [Mdoka](#) | [November Swap Meet Recap](#)



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# UnderWater Welcome

Well the dust has settled on another great IAA event. November 13th at the Davenport Knights of Columbus 11 swap, tables were smeared with fish and fishy stuff. Approximately 140 hobbyists swarmed through the doors. We gladly wrote up an unprecedented 18 new memberships – 3 were families.

PB, Super-Cichlid, M-1 (and I'm sure others – sorry if I forgot) assembled PB's show rack. Thanks. Four fish (1 more than last time) were shown. The 1st place ribbon in the Malawi mbuna class went to Orbital's Cynotilapia cobue, 2nd to my Pseudotropheus elongatus chewere and 3rd to Zell's Cynotilapia afra hai reef. Riftlakers Neolamprologus leleupi took 1st place in the Tanganyikan sand sifter class. It was the only entry but could easily

have taken 1st place even if there had been competition! Congratulations to all entrants!

Your board is considering providing 10 gallon tanks for shows to encourage more entries. The tanks can be found cheap. Any ideas for free storage?

Participation in the BAP was amazing! Dozens of bags were submitted by breeders. Oyster dethroned the previous leader Jo Meade with his unheard of 13 bags! The club hauled in \$229 at the BAP auction. Thanks to PB for all his work with the BAP and to Jo Meade for a wonderful job of auctioning the bags in a noisy room.

We were honored to have Rick and Sam Borstien's first ever presentation of "Tips and Techniques of

the Master Cichlid Breeder." It was very professional, informative and entertaining. Thanks Rick and Sam!

There were many door prizes and 3 raffle prizes. Thanks again to Jo Meade for yelling out the numbers amidst the chaos. Kevin at Pet Mart in Davenport donated a 20 gallon set-up and Rick (Cichlid-Crazy) in Moline donated a 10 gallon set-up and a rift lake "kit." Thanks! Support your LFS!

I'm sure I've forgotten to thank many that deserve it. To you THANKS for your contribution to a very successful event. At the end of the day I left with a few less (and different) bags than I had brought and felt VERY proud to be a member of the IAA.

- **Scott Carlson**  
(Fishwhisperer)

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# UnderWater Photography Contest



Jason Jenkins (malawi wowwie)  
*Lamprologus ocellatus*



Chad Gaskell (gaskell)  
*Etheostoma "Iowa Darter"*  
*Honorable Mention*



Jason Jenkins (malawi wowwie)  
*Cyprichromis lepstoma*, Kesese  
*Honorable Mention*



Scott Carlson (fishwhisperer)  
*Metriaclima fainzilberi*, Makonde  
*Honorable Mention*

**Congrats to the winner! December 20th is next month's photo submission deadline.**

# BAPtastic!

The inaugural IAA BAP season comes to a close with a photo finish!

BAPPER	Species BAP'd at the 11/13/05 meeting	Points
Manus	Neolamprologus leleupi	10
fishwhisperer	Neolamprologus pulcher (Kambwimba)	10
fishwhisperer	Labidochromis caeruleus	10
jbfish	Betta splendens	15
jbfish	Puntius odessa	10
jbfish	Metriaclima lombardoi	10
malawione	Pseudotropheus sp. elongatus "Ruarwe"	10
malawione	Ancistrus sp. "Unknown"	10
malawione	Pseudotropheus flavus	10
malawione	Pseudotropheus demasoni (Pombo Rocks)	10
Orbital	Cynotilapia afra (Jalo Reef)	10
oyster45	Tropheus duboisi	20
oyster45	Labidochromis caeruleus "Yellow"	10
oyster45	Copadichromis sp. "Midnight Mloto"	10
oyster45	Pseudotropheus demasoni (Pombo Rocks)	10
oyster45	Lamprologus ocellatus (Gold)	10
oyster45	Cynotilapia sp. "Zebra Hara"	10
oyster45	Tropheops sp. "Golden Chilumba"	10
oyster45	Aulonocara stuartgranti (Ngara)	10
oyster45	Metriaclima sp. aurora (Yellow)	10
oyster45	Labidochromis sp. "Hongi"	10
oyster45	Cynotilapia afra (Cobue)	10
Riftlaker	Neolamprologus pulcher "Isanga"	10
Riftlaker	Julidochromis marlieri "Karilani" (Orange)	10
Riftlaker	Gnathochromis permaxillaris	20
Riftlaker	Neolamprologus leleupi	10
Riftlaker	Altalamprologus compressiceps (Karilani)	15
Riftlaker	Aulunocranus dewindti	15

Place	BAPPER	Species BAP'd	Total Points
1	oyster45	14	150
2	Riftlaker	11	130
3	jbfish	14	125
4	Whiplt	7	75
5	fishwhisperer	7	70
5	malawione	7	70
7	Manus	6	60
8	Physicsboy	2	20
9	jims2cool	1	10
9	Orbital	1	10

The IAA's first BAP year officially came to a close with the last meeting in Davenport, and it was a surprise finish. Coming into this last meeting, jbfish (Jo Meade) had a 15 point lead over whiplt (Bob Randall), and a 40-point lead over the next highest. And with Bob unable to attend this meeting, it looked like Jo was the surefire champ. That is, until oyster45 (Murray Nelson) showed up!

Murray bap'd 11 species this last meeting, and pushed ahead of the competition while registering an impressive 150 bap points for the year. Riftlaker (Matt Anderson) made a strong effort as well, moving ahead of Jo and finishing second with 130 points.

It all starts over with the next IAA meeting, so now's the time to get involved and help support the IAA in 2006! A big thanks goes out to all who participated in 2005!

Congrats to Oyster45 for winning the IAA's first Breeder of the Year award!

# IAA NOVEMBER 2005 FISH SWAP



TOP: Scott Carlson peddles his fish goods to fellow OB maniacs.

MIDDLE: Jo Meade eyes up the prize as the BAP program had its best turnout yet.

BOTTOM: Rick Borstein spreads the knowledge around.

# IAA NOVEMBER 2005 FISH SHOW




## MBUNA CATEGORY (3 entries)

- First Place - Cynotilapia afra, Cobue  
Chad Lopez (orbital)
- Second Place - Pseudotropheus elongatus, Chewere  
Scott Carlson (fishwhisperer)
- Third Place - Cynotilapia afra, Hai Reef  
Rich Collins (zell)

## TANGANYIKA SUBSTRATE SPAWNERS CATEGORY (1 entry)

- First Place - Neolamprologus leleupi  
Matt Anderson (rifflaker)

## VICTORIAN CATEGORY (0 entries)



# SO, You Want to Grow Plants in Your Aquarium?!

Sooner or later the aquarist gets the urge to create a beautiful underwater planted garden:

Easy - Buy some attractive plants and stick them in the sand.

Truth - Couple of weeks later all of them have rotted and melted away.

...So what went wrong?

Plants require light, nutrients, trace elements, CO2 and substrate to grow. Let's look at these issues....

## Light

A rule of thumb is to provide between 0.5 and 1 watt of fluorescent light per litre of water in the tank. So for a 2x1x1 tank holding about 50 litres, the minimum would be  $50 \times 0.5w = 25$  watts, and better still  $50 \times 1w = 50$  watts. Some plant varieties need more light while others do well even under low light conditions. Do not use incandescent lamps. These lamps will add unwanted heat to the aquarium which can raise the temperature to unbearable levels during summer, and they consume a lot of electricity with low light output. The only advantage is that they are cheaper than fluorescent lamps. With compact fluorescent lamps becoming cheaper everyday, use them if you can afford them. These lamps will pay you back in lower electricity bills and lush plant growth. Better results may be had by using two fluorescent lamps of different colour temperature. Use one bluish (white) and one yellowish (warm) lamp in a two lamp set up.

Plants need light in the same way as the sun provides daylight. The light must be switched on in the morning and switched off in the evening. 10-14 hours is the usual amount. Plants from the tropics need 12 hours even day/night, while plants from temperate regions are used to short days in winter and long days in summer.

So don't leave your lights on indiscriminately at night. On occasional evenings when you have guests the light may be left on for few hours extra to "show off" your aquarium.

Lights may be turned off for a few days to control algae outbreaks. A few days of low natural light will not do much damage to your plants but will control some types of algae.

Aquatic plants need the same nutrients as garden plants. Fish excretion provides the macro nutrients N,P,K, i.e. Nitrogen, Phosphate and Potassium. But plants also need iron, nickel, zinc, boron and traces of many others. These are not easily found by the plants in an aquarium. In nature most water bodies are very large or are constantly being replenished as in rivers. Such sources have all the nutrients for the plants. In limited aquatic environments like the home aquarium some trace nutrients are provided by regular weekly partial water changes.

Lack of macro nutrients will result in stunted growth, yellowing or even holes in leaves. These may be caused by very low fish load in the aquari-

um or too little water changes. Do not think of adding garden fertilisers, these contain large amounts of phosphates which will result in algae outbreaks, and excess nitrates will stress your fish.

It's best to add micro-nutrients only. Pre-formulated micro-nutrient solutions are available at aquarium shops. Do not overdose, or you may end up killing your fish. Follow instructions carefully and if in doubt ask a fellow aquatic planter for advice.

### **Carbon Dioxide (CO2)**

Carbon dioxide (CO<sub>2</sub>) is essential for photosynthesis. CO<sub>2</sub> in the water comes from fish respiration, or is dissolved from the atmosphere. Just as you need to aerate and circulate water from the lower levels of the aquarium for oxygenation, you need to do the same so that the plants get enough CO<sub>2</sub>. The amount of dissolved CO<sub>2</sub> is not proportional to the amount of dissolved O<sub>2</sub>. These two factors are independent of each other. Proper aeration and circulation of water will ensure that requirements for both gases are met.

Increased growth of aquatic plants may be realised by injecting CO<sub>2</sub> from an external source. This type of injection provides a method of controlling the pH (acidity) of the aquarium water and providing the plants with extra CO<sub>2</sub> to stimulate growth. CO<sub>2</sub> may be injected from a liquefied source (gas cylinder) or by a small fermentation unit. The gas cylinder method requires a lot of hardware and is not recommended for a casual enthusiast. The fermentation method may be easily made as follows:

Take a 1.5 or 2 litre plastic cola bottle, poke a hole in the bottle cap and fix an airline tubing to it, making sure that this attachment is air tight. Half fill the bottle with water, and add 1/2 cup of sugar and 1/2 teaspoon of baking yeast. The mixture should be fermenting within hours. The gas generated during fermentation is fed through the air line to the aquarium and dissipated through an air stone. This will last about 15 days and you will need to discard it when the gas output visibly decreases, and mix up a new batch. Use a non-return valve on the air line to prevent the water from getting sucked back into the bottle. Do not fill the bottle more than half way, or you may end up with the yeast and sugar mix overflowing into your aquarium.

### **Substrate**

Aquatic plants need an adequate substrate (sand) in which to root. The substrate should optimally be 1.5mm. to 3mm. in size. Too fine a substrate will result in anaerobic conditions for the plant roots - water will not circulate when the substrate becomes clogged with detritus, and the result is a black stinky mess in which the plants' roots will rot and die.

The depth of the substrate should be 5 - 10cms. (2 - 4 ins.). Some plants will happily grow in lesser depths, while others like the Amazon Sword plant need at least 8cms. of substrate. Its better to make an error on the larger size and have a deeper substrate where most plants will be happy.



# Aulonocara stuartgranti "Mdoka" The Flametail Peacock

**Introduction:** I had seen these beautiful Peacocks on various websites and a few times locally at LFS. I ended up getting around a dozen fry or young juveniles from Jason Selong at the first ever IAA swap meet, if I recall correctly. I also learned this strain has albinism in the genetics, as Jason was getting albinos from his adult breeders. I got 3 young albinos to grow out, but was not very successful with that venture. My adult male is up to around 4" and breeding with the 3-3.5" females.

**General Information:** Flametail females are a brown color with light barring. Adult males are a metallic blue coloration with a solid white trim to its dorsal, and orange to red color in its mid-section that goes into its caudal fin. There are two locations of flametail peacocks in the hobby today, the rarer "red" flametails from Ngara and the "orange" flametails from Mdoka.



**Habitats:** Most Stuart-granti types live in the areas where rocks and sand intermingle at depths of 5 to 15 meters. Males dig holes between rocks and territories are marked with a small rim of sand around the entrance. Lake Malawi has a relatively high pH of 7.5-8.8, general hardness of 4-6 dGH, and a carbonate hardness of 6-8 dKH. The water temperature stays 76-78F year round.

**Care:** I would suggest keeping these in a minimum of a 30 gallon long, if a species tank. 55 or larger

will give you more room for versatility. I suggest a sand substrate with a few



rocks for cover & territory. Gravel works too, but the sand is more natural to their habitat.

**Feeding:** Aulonocara are sonar feeders, with most of its sensory pits in the lower part of its head. They sense

with high sensitivity, the minute movements of crustaceans and other invertebrates hidden in the sand. Once detected the Peacock quickly plucks them out of the sand. They expel any sand out its gills, sifting until its meal is only left. Many types of cichlid flakes are suitable to feed, and brine shrimp can be supplemented.

**Breeding:** Maintain several females to one or two males. Breeding will become regular in timely intervals. Feed free swimming fry baby brine shrimp and as they get old, crushed up flake food.

**Availability:** This fish is fairly popular amongst cichlid hobbyists, and in pet stores due to their color. Not extremely common, but usually obtainable if you look hard enough.

**Retail Price:** \$15-20 for adults is not uncommon. Fry and juveniles are often a bit cheaper.

## EDITOR'S NOTE:

It's hard to believe, but in January we'll be starting our third volume of Under-Water.

What makes this publication great is the help I get from IAA members. Think of all of the species profiles, the fishroom tours, the feature articles, and the regular columns like The Dailey Adventure. That's what's made this publication great.

So, what's on the horizon for 2006? Hopefully, more of the same. The past few issues have been light on IAA member provided content, so a few regular features, such as the Fishroom Tour, have vanished. My hope for 2006 is that we can get those up and running again. But, I need your help!

If you are at all interested in helping with the newsletter, please let me know. I need species profiles,

Fishroom Tours, feature articles, and more. We tend to have a little more free time come January, so use that time to help. I can help you with ideas if you are interested.

The Dailey Adventure is another monthly item that I'd like to bring back. Brett Dailey generously donated his time each month to visit something fish-related, and then tell us about it. It was a great feature, and you can help. Got a

fish store in your area? Stop by, take some pictures, and tell us about it. Or maybe there's an public aquarium in your city that other IAAs might like to know about.

There are a ton of ways to help out, and trust me, I need your help! Let's keep this a monthly publication! Thanks, and have a great holiday season and new year!

*-Joe Lover (loverland)*

## So, you want to grow plants in your aquarium?!, cont. from page 8

### Tips on plants

Select healthy looking plants when buying from local fish shops. Do not buy plants from aquariums where you can see small bits of plants and leaves floating - these plants are already disintegrating.

Plants can bring diseases and pests into your aquarium. Sterilise plants by soaking them for 10 - 12 minutes in a dilute solution of potassium permanganate. The solution must be light pink in colour.

Before planting, remove all damaged and dead leaves. Don't worry if the old leaves all die out at first - they will grow back in due course.

Some plants like the cryptocorynes are known to suddenly melt (leaves dissolve into paste) when the light levels are changed. They will grow back within a couple of weeks.

Some species of aquatic plants change their appearance according to light level and nutrients available. What is a giant plant in one aquarium will be a midget in another aquarium.

■ by Rajendra Kumar, G.G.

Originally published in Infoquaria, Aquarist Society of Karnataka, India  
Aquarticles

## / CALENDAR OF EVENTS /

DATE	TIME	EVENT	LOCATION
Dec. 1	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
<b>Dec. 10</b>	<b>10:00 AM</b>	<b>MCA IA Swap/Meeting</b>	<b>Microtel Inns &amp; Suites, Urbandale, IA 50322</b>
Dec. 11	7:00 PM	GCCA Meeting	Holiday Inn, Rolling Meadows, IL
Dec. 14	7:00 PM	Green Bay AS Meeting	Fremont, WI
<b>Dec. 13</b>	<b>7:00 PM</b>	<b>EIAA Meeting</b>	<b>Kenwood Park Presbyterian Church, NE Cedar Rapids, IA</b>
Jan. 5	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
Jan. 7	7:30 PM	Champaign Area Fish Exch.	Carroll Community Center, Urbana, IL
Jan. 8	7:00 PM	GCCA Meeting	Holiday Inn, Rolling Meadows, IL
<b>Jan. 10</b>	<b>7:00 PM</b>	<b>EIAA Meeting</b>	<b>Kenwood Park Presbyterian Church, NE Cedar Rapids, IA</b>