

# THE NEW ENGLAND CICHLID

*New England Cichlid Association*

September 2014

## Upcoming Events

**Next Meeting:**  
Saturday, September 13 @ 1 PM



The September NECA Meeting will be held at **Chuck Pixley's home**  
Message Chuck for directions!!



Our first meeting after the summer break will be at the home of cpix3 (Chuck) at 1:00 on Saturday, Sept. 13. This will be a cookout affair, so please let us know here what you're going to bring. The club will be supplying the meats, so bring a side dish or a salad. The main topic of conversation will be the 2015 ACA convention, which we're hosting. You can contact Chuck directly through the forum for address and directions information. Hope to see you there!

## CICHLIDS ON MY MIND



Summer is rapidly coming to an end, and the 'seasons of fish' are upon us. I've never really understood why the summer has proven to be a difficult time to attend to my fish, but it seems that it is for many of my friends in the hobby. But with the turning of the leaves here in New England, it's increasingly easier to spend an evening changing water, cleaning gravel and generally getting the tanks ready for the next 6 or 7 months of frantic activity. NECA is having its End of Summer Cookout this Saturday at Chuck Pixley's home and I am looking forward to seeing old friends, getting a few new fish and moving along some of my increasingly numerous adolescent African cichlids to hobbyists who really want them.

Right now I've got 2 groups of *Astatotilapia calliptera* Chizumulu, fry, a beautiful and uncommon Malawi cichlid, 3 groups of *Mbipia lutea* 'crossbar' fry, with one group sexable, and some sub-adult *Alcolapia alcalica* getting ready for the October auction. Let's all start getting ready for the event, and make this fall's auction even more successful than our spring auction.

NECA has a full and challenging agenda for the next year, featuring our hosting of the 2015 American Cichlid Association Convention in Springfield, MA. At our meeting on Saturday we'll focus on setting up our NECA programs

and speakers for the year, including our Fall Auction. And the Convention Committee will be bringing us up to date on the progress that they've made, including the Convention Website.

See you at Chuck's on Saturday.



*Astatotilapia calliptera* 'chizumulu'

Peter George

## MY FAVORITE CICHLID, *HYP SOPH RYS NICARAGUENSE*

TEXT AND IMAGES BY MIKE LIU



Map of Central America

**H***ypsophrys nicaraguense* comes from Nicaragua and Costa Rica, and especially the great volcano lake, Lago Nicaragua. From the map, you can see Lago Nicaragua is located at the southern edge of Nicaragua, almost bordering Costa Rica. I've

heard the claim that the more colorful variety of Macaw Cichlid comes from Costa Rican waters, but I don't know if this is true. Macaw cichlids can grow large, but they are generally peaceful and display bright colors at maturity. Males reach 10" or more, and females grow to 6"-8" in a sufficiently large aquarium. Unfortunately, they don't really start to color up until they are 3" or more in size. Females are more colorful with an orange-yellow body color, especially in the abdomen, and a thick, solid dark lateral line running the length of the body and ending in a spot on the caudal peduncle. Orange coloring extends into the base of the dorsal fin, and a transparent orange into the caudal fin. The head of the female can develop an intense turquoise coloring, especially at spawning, and the dorsal fin is also edged in turquoise. Males have an orange body color and the scales are edged in black, giving the fish a reticulated pattern. Brown spots are typically present in the dorsal, anal, and caudal fins of males. The lateral line is not as dark in males, and males do not develop the intense turquoise color on the head. Fry are rather unremarkably colored. As juveniles, both sexes look the same. They are basically silvery and still uncolored, and exhibit a dark lateral line with a large round mid-lateral blotch and spot on the caudal peduncle. Some juveniles will exhibit only



Map of Nicaragua

the mid-lateral blotch. As they grow, they start to show some gold coloring in the body and fins, but it isn't until they are 3"-3 1/2" that their coloring changes dramatically and you can start to tell



males from females. The coloring of this species can clearly be seen in the photos.



*Hypsophrys nicaraguense* fry



Typical Juvenile fish



Group of juveniles with two larger females coloring up



A nicely colored adult pair

*Hypsophrys nicaraguense* is easy to keep in an aquarium. They are omnivorous, eating any food offered in the water column or at the bottom. They are not sensitive to water chemistry, but typically come from waters with a high pH. They make good residents for a mixed cichlid community, as they do not dominate a tank or bother other cichlids, but are generally large enough to stand up to some abuse and not get harmed. In their native waters, they can be found with bruisers such as *Parachromis dovii* (Wolf Cichlid) and *Parachromis managuense* (Jaguar Cichlid). I have mixed them successfully with large and aggressive cichlids such as Red Devils and "*Cichlasoma*" *grammodes*, as well as medium sized cichlids such as *Herichthys carpintes* and smaller cichlids such as *Cryptoheros sajica*.

These fish like to dig, especially when they are getting ready to spawn. In fact, I once had a large pair in a 40 gallon breeder tank set up on the upper rack with 10 gallon tanks below. I set up several large stones on a thick layer of gravel. The pair really seemed to like all the gravel as they moved it until the bottom glass was exposed. It was kind of neat to watch them move the gravel around. I rearranged the gravel and rocks and let them go at it again and again. One night as I was sleeping, I heard a loud crash. I thought my cats had knocked something over and fell back asleep. In the morning, I went down to the fishroom to do the morning feeding. There was water all over the place. What happened? Then I saw the 40 gallon tank was empty, the bottom glass was broken, there was gravel and rocks all over the basement floor and the pair of nicaraguense was not in the tank! The fish must have excavated all the gravel out from under a large rock and the rock tipped over and broke the bottom glass. I got on my hands and knees to scan the floor, but I saw no fish. As I was getting up, I saw the large pair in one of the 10 gallon tanks that was set up below the 40. Somehow, the fish drained out with the gravel and landed safely in the 10. Some of the 10 gallons were also broken, as rocks had smashed through them and onto the floor. But the nicaraguense somehow landed in an intact tank and were safe and sound! After this experience, I have a real bond with *Hypsophrys nicaraguense*.

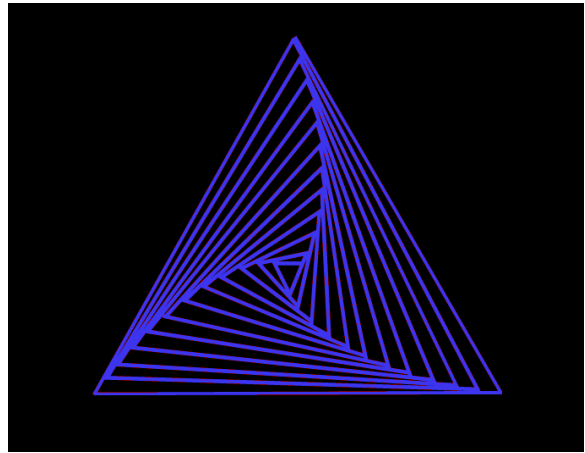
I've kept this fish on and off in my tanks for the past 20-plus years.

I think the digging is part of the sometimes long courtship that can take place. Even though they can grow quite large, they are able to spawn at about 4" size. Typical breeding behavior is for extensive digging or gravel moving to take place. I have found that females like to spawn inside a cave with only one opening. In nature, they dig pits under large stones or burrow under some underwater feature where eggs are laid on the substrate. If you keep large stones as décor or hiding places in the aquarium, you should place them on the glass so they don't tip over and break the glass, as described in my broken tank story above. The unusual characteristic about *Hypsophrys nicaraguense* is that they have non-adhesive eggs. The eggs of substrate spawning cichlids are usually sticky and are deposited on flat, sloped or vertical sides of roots, logs, or stones. *H. nicaraguense* lays its eggs in a protective place where they are kept in a pile by the female. As eggs get swiped away by water current or the fish's fin movements, the female picks up the stray eggs and spits them back into the pile. I have used various clay and ceramic pots for spawning caves. The male usually patrols outside while the female stays in the cave with the eggs and newly hatched fry. When the male is startled, he may go into the cave as well. The eggs hatch in about 5 to 7 days and become free swimming after 3 or 4 more days. The fry can be fed with crushed up flake or powder food, no baby brine is necessary.

While juvenile *nicaraguense* are not too showy, it is worth the wait to grow this fish out to adult size and see the remarkable color transformation. If you happen to see any nicely colored 3"-4" fish, you know you're going to get some adult beauties. *Hypsophrys nicaraguense* are easy to keep, as colorful as many marine fish, and pose no real challenges in the aquarium. No matter how many times I get rid of any of these fish I have at home, I always acquire more!

**NECA FALL AUCTION**  
**October 26**

## PARADIGM: QUALITY IN EVERY CRUMBLE



If you are a fish enthusiast, a fish breeder, or you just have a couple of fish....then you have had to purchase fish food recently. With so many different brands and varieties it can get a little overwhelming. So what sets one food apart from another one? One word....Quality. There are certain things that one needs to look for when choosing a quality fish food. I will briefly go over what I feel these important things are.

First of all is that not all fish are created equal. There are 3 different types of fish: carnivores, omnivores and herbivores. A carnivore is a fish that eats other living creatures including fish, invertebrates, insects, insect larvae etc.. An omnivore is a fish that eats other living creatures including fish, invertebrates, insects, insect larvae etc. and plant matter. This group is comprised of opportunistic scavengers eating anything that they can catch and scraps provided by other larger predators. When the previously mentioned items are not available they eat plant matter. A herbivore is a fish that primarily eats plant matter. Most herbivores kept in the aquarium are algae grazers however there are a few that eat water plants. As you can see, each of these 3 types of fish eat different things. So how does one just go



out and buy one type of food that encompasses all 3 of these different diet and nutritional requirements? They can't!

Since we have determined that fish are categorized into 3 different types and have 3 different diets, then it's important to feed your fish the appropriate one. The reason for this is that each type of fish should have a diet that differs in the amounts of proteins, fats, and starches that it consumes. I could talk about this topic for quite some time...but I won't. The basics that one needs to know is that carnivores digestive systems can handle higher amounts of proteins and fats and a limited amount of starch. Omnivores require less protein and fat than carnivores and due to their longer digestive tracts utilize more starch. Herbivores require less protein and fat than omnivores and due to their much longer digestive tracts can utilize even more starch. Fish convert the starch into sugar...which then turns into energy. So to get the most out of your fish food and keep your fish as healthy as possible, then you should feed them a food that correlates with which diet their bodies are designed to handle.

Which brings me to myself, my name is Stephanie Butt. My husband Frank and I own Low Country Cichlids. We breed African cichlids out of our home in Savannah, Georgia. We breed all kinds of African

cichlids from Lake Malawi, Tanganyika, and Victoria. We were using a popular brand of fish food for all our fish but we were not completely satisfied with the results. I wished that there was a whole tropical fish food line that could mimic what the fish are accustomed to eating in their natural habitat...but there wasn't. Then we purchased some fish from a breeder in Staten Island, NY and he included a sample of some Premium Green fish food. We tried the food and the fish went crazy for it. We looked up Premium Green and contacted the owner, Clay Neighbors. Clay and my husband both shared two things: a love for fish keeping and a desire to feed their fish the healthiest fish food that they could. Clay had been making fish food for about 4 years when we met. Frank and I started testing all of Clay's formulas on our own fish. With our combined knowledge and observations....we came up with the formulas that Paradigm Fish Food uses today. Most commercial fish foods that are out today use a multitude of grains (wheat, corn, soy, etc) in their foods as cheap filler and/or a binder. There are a couple of reasons why this is bad. First because most grains used are high in starch. If the food contains excessive starch the fish can't use it all and any of the fat. This leads to the excess being stored in the fish's liver and eventually around its organs. Over time this leads to a condition called Fatty Liver Disease. So....What I wanted most of all was a food that did not use any grains. There had to be a way to bind the food together without using grain containing gluten.

First and most importantly we wanted to make a binder using as minimal amount of starch as possible. We knew that eggs were used in holding baked goods together so why couldn't we use it to keep whole fish meal together? We first tried actually breaking whole chicken eggs apart and taking the whites out but that got way too messy. So we



then decided to use dried egg whites. Using a binder that has 75% protein with a complete amino acid profile separates our food from any other fish food on the market today.

Next, we knew that there had to be some form of starch in the food but what would be a good starch to use? Well...fish's digestive tracts are different. Some are short and some are very long. The best thing to ensure that the foods the fish are eating move along the digestive tract with the most ease is fiber. Is there a food that could be used as a starch and a fiber? Yes there is....Green Peas.



Green peas are a very beneficial food, especially to fish. Peas are an excellent source of fiber, starch, protein, low fat (and the fat they do have are high in Omega-3 and Omega-6), a good source of vitamins and minerals (vitamin K, B1, B2, B3, B6, C,

Manganese, Folate, Iron, Phosphorus, Copper, Magnesium, Iron, and Potassium), and they also have anti-inflammatory and antioxidant benefits too. These are all the reasons we use Green Pea flour in all of our fish foods.

If you look at all of our food labels you will see that we use a total of only 9 ingredients: Whole menhaden fish meal, shrimp meal, green pea flour, dried chicken egg whites, spirulina, astaxanthin, whole menhaden fish oil, paprika, and cayenne pepper (not all formulas contain all the ingredients). That's it...there is no need to have a whole bunch of unused, unnecessary, unhealthy and unpronounceable ingredients added.

One thing that is also very different about Paradigm Fish Food is that we don't need to add any extra vitamins and/or minerals to our foods. The reason for this is because we do not make our food like any other company. Commercial tropical fish foods are made by using a process called extrusion. The food is mixed and then placed into a large machine that can produce mass quantities of food in a very short amount of time. The mixture is fed into that machine, called an expander, which uses pressurized steam or hot water to cook the ingredients. While inside the expander the ingredients are under extreme pressure and heat. The food is then forced, or extruded through tiny holes that will shape the food into the pellet form you are used to. The pellets must then go through a dryer machine to extract any extra moisture left over.

The temperature that the ingredients are cooked at is at about 350 degrees. Vitamins are heat sensitive and they break down at higher temperatures. Therefore, companies must add extra vitamins and minerals into their foods to ensure that the fish are receiving the proper amounts. Our foods are

not cooked at 350 degrees like theirs are...ours are dehydrated at only 150 degrees. Dehydrating foods is the oldest form of food preservation but not everyone knows how beneficial dehydrated foods can be. Dehydrated foods require no preservatives or chemical additives. This is because you are literally taking most of the water/moisture out of the food. Without all that water, the food does not spoil so it is preserved for a longer period of time. Dehydrated foods contain the same nutrients, enzymes, vitamins and minerals as if you were eating the food fresh and raw. This is why no extra vitamins and minerals are needed to be added. "The dehydration process retains almost 100% of the nutritional content of the food, retains the alkalinity of fresh produce and actually inhibits the growth of microforms such as bacteria." Dehydrators produce a thin food material with its vitamins and minerals still present. Dried vegetables and sprouts, naturally low in "high-cholesterol" fats, are high in fiber. Almost no Vitamin C is lost in the ingredients that we dehydrate and all Vitamin A--Beta Carotene--in plant foods is retained. Such minerals as selenium, potassium and magnesium are preserved.

So there you have it...we are just avid fish enthusiasts who wanted the very best quality fish food for our fish. It has taken many years of research (both written and physical) and a lots of trial and error. The end result is the most simple and healthy ultra-premium fish food that you can give to your fish. We are pleased to be able to offer to you all the new shift in fish food, Paradigm.

You can check out Paradigm Fish Food for yourself and see a list of Authorized Retailers at [www.paradigmfishfood.com](http://www.paradigmfishfood.com)

*Stephanie Butt*

## FINS OF A FEATHER

TEXT AND IMAGES BY JIM KENNISTON

By now, most folks are aware of my preference for the cichlids of Lake Tanganyika. Lakes Malawi and Victoria may have produced more colorful fish, however, given the extra several million years of evolution, Lake Tang has produced some real oddballs. One of these endemic rarities is not only fascinating from a morphological and behavioral standpoint, but can rival any cichlid's coloration and splendor. I have personally kept several unique and spectacular fish, but one tank could stop all visitors in their tracks. Most folks are quite impressed with petros, trophs, cyps and xenos, but the oohs and aahs would stop, jaws would drop, and cameras would pop, when they got a look at the foai.



*Cyathopharynx furcifer*

There is probably not a more magnificent sight than a lit up nine inch male *Cyathopharynx foai*. Although the females are silver and drab, the males are gorgeous showstoppers. Their colors can change in an instant, and can appear different as the fish moves into a new viewing angle. This fish doesn't rely on pigments to produce its coloration, rather is able to alter the path of light by creating wave interference patterns from its scales. This method is called "structural color", and can produce remarkable effects. If you have ever observed the interference patterns created by the tiny pits on the underside of a CD, you get the idea. The effect is iridescence. These fish appear to have an almost metallic sheen, as they turn on and off various shades of blue, purple and green.

There are two species within the genus *Cyathopharynx*, *C. foai* and *C. furcifer*. There is some debate as to whether they are separate species, however, I will not enter into that here. The foai usually appear darker than furcifera, probably because they are found at greater depths in the Lake. They are known as “featherfins” because of the extremely long ventral (pelvic) fins. This adaptation achieves much the same purpose as the “egg dummies” on the anal fins of haplochromines. The ventral fins of the male featherfins extend all the way to the vent. The very tips of these extremities are bright yellow, just like the eggs. In fact, the yellow does not flash on and off like the iridescent body scales. I therefore suspect that the yellow egg spots are the result of pigmentation. During breeding, the male will drag his elongate fins in such a way as to entice the female to try and pick up the “eggs”, only to receive a mouthful of milt. Perhaps this method is more effective than egg-spots on the anal fin because of the reduced sunlight at that depth. Under dim conditions, the bright yellow tips of the ventrals may be easier to see.



*Cyathopharynx foai*

These fish do well in captivity if you follow a few basic rules. They should be given a big tank without harassing tank-mates. I recommend a six foot tank. They do not require rocks like many African cichlids, and in fact, may injure themselves on them. Wild fish are particularly prone to dashing about when spooked, often causing injury. Wild fish lose their coloration upon capture as well, and may not regain it for months, years or never. The vibrant colors are very mood dependent, and a stressed fish will not light up. Tank raised featherfins are a better option. They are less stressed by captivity, so they color up much quicker and do not dart about dangerously. Males will chase each other around,

so be careful of any rocks with sharp edges. Sand is the best choice of substrate, but be careful how much you put in. The dominant male will use almost all of it when building his breeding pit. If you give him enough sand, he will construct a veritable volcano. In a large tank, the pit can easily be over a foot in diameter, so be prepared for your aquascaping to be destroyed. They will eat prepared food. I use NLS and occasionally frozen mysis shrimp. Be careful of too much meat. These fish have extremely long digestive tracts, more conducive to digesting vegetation. I have heard that they can get bloated, but I haven't seen it. I did once, however, have one that had a blockage in its gut that eventually resulted in rupture. I do avoid feeding them brine shrimp and any type of worms. Be prepared for the longest string of feces you've ever seen. These fish eat diatoms in addition to what you feed them, and produce amazing amounts of waste. A good canister filter is probably a good idea.

Of course it would be best to have a female heavy group, but that may be difficult to obtain. From my experience, the offspring are inevitably male heavy. If the tank is big enough, you can get more than one male to color up and build a pit, but typically one male will establish dominance and set the other males straight. These are harem spawners, so one male can breed with several females. The presence of another male will bring out the best coloration of your alpha though. Females are maternal mouthbrooders, and may or may not hold well. From my experience, furcifera hold better than foai. Often, it takes a few times before mom gets the hang of it, but if the males harass her, she will never hold full term, so be sure she has a place to get away to. Fry are silvery, like the females. I have found that furcifera males begin to show color by the time they are 2.5 inches, however, foai will usually need to be at least four inches. I currently have a group of foai growing out in a 40 gallon tank that have recently began to color up. Yesterday, while doing water changes, I noticed one of the girls holding. Almost no sand in the crowded tank, and very male heavy, but breeding took place. No conditioning food. In fact, all the conditions were wrong, but there she was with a mouthful. She inspired me to write this article.



## ODDS AND ENDS

One of the articles in this issue was written by Stephanie Butt of Paradigm Fish Foods. I picked up a few samples from Trevor O'Shea when we visited his fishroom a few months ago, and my fish seemed to enjoy the food. As a result, I bought a few packages of Herbivore and Carnivore from Ken's, and have been feeding it to my cichlids and rainbows for over 2 months, and the fish continue to gobble it up. I do mix it up with flake and frozen food, but overall their receptivity to the food is very good, and they appear to be breeding at least as often as they did before I started using the food. I'll continue to monitor their health and breeding behavior, but for now I'm willing to endorse the food with enthusiasm, and intend to buy more when my supply runs out.

I also had the opportunity to buy some Victorians from Josh Cunningham, a cichlid breeder based in Michigan. I obtained a breeding group of *Paralabichromis* sp. 'red fin piebald' cichlids, consisting of 4 males and 7 females. I paid \$65 for the group, and they arrived healthy and started breeding almost immediately. I gave them a 55 gallon tank, with a few rocks and deep gravel, and right now I've got 3 females holding, which means I'll probably have quite a few fry by next week.



Josh is a very easy person to deal with, and his selection of fish is quite eclectic, changing week by week. I would recommend that you take a look at his website periodically, and if you find something of interest, you can feel confident that he's reliable, honest and responsive. His site is: [www. http://www.cunninghamcichlids.com/](http://www.cunninghamcichlids.com/)



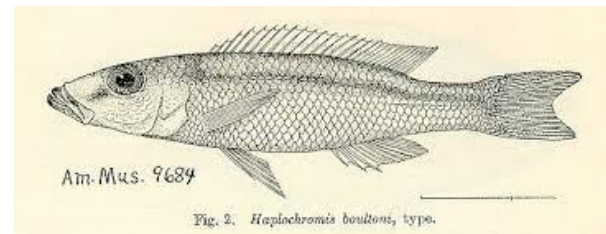
Josh's Fish Room

Finally, let's spend some time on the various websites that are providing NECA with publicity, as well as helping us in our fish hobby. These sites include, but are NOT limited to:

[www. http://www.necichlids.com/](http://www.necichlids.com/)  
[http://www. acaconvention2015.com/](http://www.acaconvention2015.com/)  
[https://www. facebook.com/groups/236314137459/](https://www.facebook.com/groups/236314137459/)

Peter George

## POSITIONS OF RESPONSIBILITY



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Notes: