

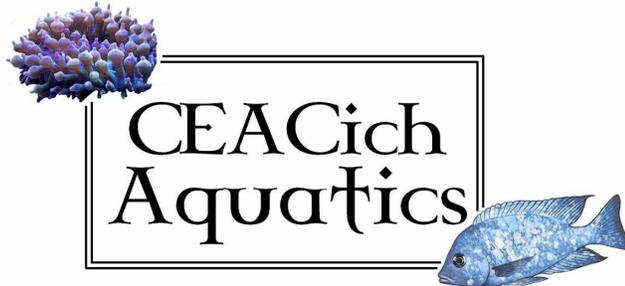
CEACICH AQUATICS, INC.

CEACich News

CEACich (sea•sick) Aquatics, a non-profit entity, derives its name from Corals, Exotics, and African Cichlids. We have grown what once started out as a Facebook group, into an ichthyologic club. We welcome the discussion of all aquatic life. A place for like-minded individuals to explore, learn, and enjoy.

CEACich Aquatics, Inc. is a social organization that seeks to educate, connect, and promote the efforts of aquatic life enthusiasts across the state of Iowa. Ichthyology (the branch of zoology that deals with fishes), limnology (the study of the biological, chemical, and physical features of lakes and other bodies of fresh water) and marine biology (the scientific study of organisms in the ocean or other marine bodies of water) are at the cornerstone of hobbyists efforts. We seek to understand the environmental needs of aquatic life forms, approximate those conditions in artificial settings such as an aquariums or paludariums, then breed or propagate aquatic species for the development of a sustainable hobby.

We support all efforts to preserve endemic species.



According to Le Cren (1990), the biology of the vast majority of the 22000 or so known fish species (which comprise 50% of all living vertebrates) is virtually unknown.

The greatest number and variety of fish occur in the oldest freshwater lakes, wetlands and river systems of the tropics and subtropics, and in the waters surrounding coral reefs. Since available information suggests that in some parts of the world about one-third of the local fish species may be threatened, their conservation presents a massive challenge.

We believe that single-species conservation is important, but less relevant than the conservation of fish communities and their habitats. The conservation of whole ecosystems must be the long-term goal of fish conservationists.

Website:
<http://ceacichaquatics.org/>

Board of Directors and officers
[Click Here.](#)

Membership: [Click Here](#)

Articles of Incorporation:
[Ceacich Aquatics, Inc. AOI](#)

Bylaws:
[Ceacich Aquatics, Inc. Bylaws](#)

Code of Conduct:
[Ceacich Aquatics COC](#)

Auction Rules:
[2016 Auction Rules](#)

Facebook Group:
<https://facebook.com/groups/ceacichaquatics>

Facebook Page:
<https://facebook.com/ceacichaquaticsinc>

Inside this Issue:

Swap	2
Membership Meeting	2
Membership	3
Breeder Award Program (BAP)	4
Water Testing Program	4
Member Article ~Crayfish	5
Member Article ~Probiotics	7

SWAP

Thank you so much to everyone who sponsored, organized, and attended CEACich Aquatics' 2nd Swap and Auction on October 2, 2016 at the [Walnut Center](#) at the Iowa State Fairgrounds!

We had hundreds in attendance for this event; our Membership Kick-Off! All proceeds raised by the event were used to cover the associated costs of the venue and provide for even larger events in the years to come. CEACich Aquatics, Inc. operates as a non-profit social organization.

[Our next swap:](#)



About the [Paul R. Knapp Animal Learning Center](#) at the Iowa State Fairgrounds. 17,280 sq feet that will be filled to the brim with all your fresh and salty cravings!

CEACich Aquatics 1st Member Meeting

Sunday, December 11th, 2016 at 2:00 pm.

The location is to be announced.

Save the Date!

Member fish swap

BAP Introduction

Guest Speaker

Officer Nominations

General Membership Meeting

Become a **MEMBER**

Membership

Back in the 80s and 90s there were really active fish clubs throughout the state. Before Facebook, people actually joined together in the community to share knowledge, discuss species and breeding/propagation, and compete in breeding award programs. Now days, many fish/reef keepers stay dormant in front of their computer screens. Information shares are often met with the coldness of textual responses that lack indicators of tone. Quite often, this leads to misunderstanding and drama ensues.



We need a club that leverages the talents, expertise, and knowledge of its members to help one another. We need a club that is organized to provide world-class events, speakers, and knowledge transfer. We need a club that uses all proceeds to sustain itself rather than to provide individual financial gain. We should be coming together to support and encourage one another.

This is why we have formed

CEACich Aquatics, Inc..

Bringing the CLUB back to our area.

CEACich Aquatics will be very involved with the hobbyist. We seek to educate and connect aquatic enthusiasts through discussion in our:

- Facebook Group
- Facebook Page
- Public Facing Website
- Online Knowledge Base
- Bi-Monthly Member Meetings
- Guest Speakers
- Quarterly Newsletters ~ The Tributary
- Breeder Award Program (BAP)
- Horticulture Award Program (HAP)
- Water Testing Program.

Special attention will be given to habitat emulation and preservation of endangered species. We will promote the efforts of aquatic life enthusiasts across the state of Iowa through semi-annual swaps and auctions. CEACich Aquatics is committed to improving the care of aquatic life in personal biomes, promoting and increasing the availability of captive bred species, and relieving pressure on the environment by reducing wild-caught demand.



Under the discretion of our elected Board of Directors, our social organization will provide elected officer positions to guide each of our committees' efforts. We may provide internships and/or volunteer opportunities which shall provide opportunities for involvement in the aforementioned activities and programs in order to have a greater impact on change and knowledge transfer.

CEACich Aquatics offers two levels of membership:

Single-Person Membership, and Family Membership.

A Family Membership will allow two adults and any children under the age of 18 access to membership privileges.

Both types last for 1 year from the date of payment.

Becoming a member grants you many privileges such as:

- \$5 off swap tables
- 1/2 hour early entry into swaps. Get the first view at the best items and top deals
- Discounts at local fish stores
- Discounts on club apparel
- Invitation to bi-monthly Club Meetings consisting of, but not limited to:
 - Special Party's (Example: white elephant Christmas party)
 - Fish room tours
 - Round table discussions
 - Speaker presentations
 - Door prizes
 - Fish Shows
 - Access to Knowledge Base
 - Access to BAP program
 - Access to future HAP program

CEACich Aquatics, Inc. is a true non-profit organization and shall be operated for educational and charitable purposes within the meaning of Section 501(c)(7) of the Internal Revenue Code of 1986, or the corresponding section of any future tax code. To maximize our impact on current efforts, we may seek to collaborate with other non-profit organizations which fall under the 501(c)(7) section of the Internal Revenue Code and are operated exclusively for educational and charitable purposes.

BAP Spotlight

Ceacich Aquatics has developed a Breeders Award Program for our supporting members. We are launching the program today. This Breeders Award Program, BAP for short, was drafted by the BAP committee, which has dual chair members. Zoea Warnick and Pat Dorrian have stepped up to make this program one of the best in the nation.

The goal of our Breeders Award Program is to reward the stewardship efforts of our clubs hobbyist's, help to distribute rare and hard to find species within the club, and to help educate our member base



Water Testing Program

CEACich Aquatics now offers water quality testing. The program is FREE to all members of CEACich Aquatics! This program will slowly grow into a large testing program that allows you to have almost any kind of testing done on your water samples. The testers may also be able to give tips on how to fix any issues that they detect during testing.

Test results can be provided with quick turn-around times. Times to drop off samples can be arranged on appointment. Samples can be dropped off directly at an officer's home or be brought to a members meeting and done at the time of the meeting. Depending on distance, time, and scheduling, we may schedule appointments to visit the aquarist's house for no extra charge.

across all aquatic species.

How the program works is rather simple. Any paid member can participate that is breeding either freshwater, or saltwater fish. Simply fill out the BAP submission form, which can be found on our website, ceacichaquatics.org. It will ask water parameter things such as temperature and PH. You than submit this form to the BAP program, who verifies your spawn if needed. Than you bring 4 of the fry to the BAP auction and submit them.

You will be awarded points based on the difficulty of the species, and you can win bonus points by filling the submission form to completion, as well as if you write an article on the spawning of the species. This article may be used in the Ceacich Newsletter if you wish. All proceeds from the BAP auction stay within the club to continue the BAP Program.

At the end of the year, prizes are awarded for the members with the most points. These prizes can include, tanks and or equipment, gift cards to local aquatic companies, trophies, medals, plaques, and free membership.

The rules for this program are on our webpage as well for a detailed write-up of the program in entirety, so I don't have to bore you with rules.

This first year will have some awesome prizes to kickoff the program. If you're not a paid member, you can do so by signing up over at our booth with Steven Wood, or online at our website, ceacichaquatics.org. We have business cards floating around that contain our webpage as well if you forget. We look forward to seeing you at BAP meetings.

We currently test:

pH

Ammonia

Nitrite

Nitrate

Phosphate

Calcium

TDS

Conductivity

Carbonate Hardness.



Crayfish ~contributed by Grant Stewart

Crayfish are important contributors and keys to environmental stability. Many biologists study crayfish, their behavior, and their population rates to observe their ecosystem's health. An ecosystem without crayfish may have very acidic water or an unbalanced aquatic ecosystem. Crayfish are kept by biologists and aquatic hobbyists as pets. Some develop what seems to be a personality, despite their lack of a developed brain. I have noticed with my own crayfish that some really do develop an interesting personality.

Chemistry: Crayfish require water at or above about 7.2-7.4 for pH. I generally maintain my pH at 7.5-7.6. This allows for proper shell generation, improves their ability to molt, and may potentially help their nervous system operate. You can raise the pH of a tank naturally by adding calcareous materials to the tank. I used to put chunks of coral inside my HOB filter. You may also use crushed corals/shells for a substrate (an example being Aragonite) to raise the pH. If you continue to have issues with your pH parameters, the issue may be a lack of gas exchange (carbon dioxide not able to "escape" the water) or a variety of other reasons. To test the carbon dioxide idea, allow for the tank to "breathe" by removing any lamp or solid lids; though be careful of any potential escapees.

Feeding: There are many different routes you can take to feed your little mudbug. Snello is my preferred option, however sinking pellets, pieces of coral (dead), fish flakes, and powdered supplements are great too (just a little more expensive). With crayfish being opportunistic omnivores, piscivores, and detritivores, just about nothing is safe around them. Snello is a vegetable-based gelatin food mix that is commonly used for crayfish. Snello, short for "Snail Jell-O" was originally intended for snails. It makes feeding easier by keeping the ingredients together, reducing the amount of food wasted and keeping dissolved organic levels down. I add calcium carbonate to help with shell regeneration, as well as some other small but key ingredients. An iodide supplement to the tank water during water changes is also a must for molting. The iodide assists crayfish in absorbing calcium from their food and substrate.

Species: Of the three species I've kept and still have, the differences are huge. The "Marbled Cloning Crayfish" (*Procambarus fallax forma virginalis*) is a very laid-back crayfish. While it will still hunt and kill other fish (and a relatively high rate of cannibalism compared to other species), they do not really perceive humans as threats. Sometimes they've even thought my finger was food, running and crawling all over it. While trying to reach for them they usually just try to walk or run away. They are usually pretty quick about getting to the food presented to them, even if they're berried up. It is debated whether they're plant-friendly or not. My personal experience is that even with consistent and very generous feeding, the plants are never safe. These are the best beginner crayfish to get a hang of maintaining the eggs, observing hatchlings, and easily getting a low mortality rate.

cont..



Crayfish

—contributed by Grant Stewart

The “Electric Blue Crayfish” (*Procambarus alleni*) are the most aggressive I’ve ever seen of a crayfish. Saltwater lobsters would be a better friend than an *alleni*. You would get better results from an unbroken horse before you could train this crayfish to be docile! They will perceive you as a threat and go after your hand or any other foreign objects. While they’re more aggressive, they do not hurt as much as the *Procambarus clarkii*, in my opinion. The *alleni* crayfish isn’t terribly aggressive towards other crayfish, but they will fight and potentially kill each other, as with all crayfish. *Alleni* will hunt fish, snails, and other things that they can clamp. Some sources note that *alleni* require a diet with protein. Spirulina added to sinking pellets or snello would be something good to look into. However, this contains a protein that they usually intentionally lack, creating their very light lightning blue color. Once the spirulina is added to the diet the crayfish may turn a darker blue during the next molt. You will lose the light blue color, but your crayfish is healthier with this supplement.

The “Red Swamp Crayfish” or “Louisiana Crawdad” (*Procambarus clarkii*) are very skittish when it comes to human interaction. They are defensive and will pinch but they are not necessarily aggressive. They will do anything required to get away from you. This is also the only crayfish that I’ve had “smart” enough to escape. I use quotations around the word “smart” because they do not have a developed brain; they merely have a clump of nerves bunched up near the head end of their carapace. The females of *clarkii* are pretty able when it comes to fending off a mating male if she does not wish to mate or is unable to mate (blue/peach pair observed). *Clarkii* come from a generally aggressive environment in the swamps and bodies of water in the southern United States. They’ve been introduced to other sections of the US for various ecological reasons. They’re found from the south-eastern areas, such as Florida, Georgia, Alabama, all the way up to Oregon in the north-western area. They’re very hardy and adapt well to their environment. Because of their hardiness, they’re a good crayfish for beginners that have had some crayfish experience. These scavengers will eat anything they can fit in their mouth. However, I’ve noticed that cannibalism rates within the young being reared are relatively low. I received a crayfish that was near its death once, and fed it a whole European night-crawler (bought through Four Course Feeders, who sell locally and can ship throughout the US) and it bounced back to life! *Clarkii*, for some reason, are not a huge fan of snello, though they will eat it when they realize that’s the only thing they’re getting for the time being.

Sexing: Telling the sex of your crayfish is relatively easy compared to some invertebrates. Sexing your crayfish is as easy as picking up the crawdad and looking at its underside. Wait, what’s the catch? Well, do you have an *alleni* or *clarkii*? They usually hate being held. Once you’re able to hold it by the carapace and view the bottom, you will look at the leg section. Near the back side of the legs, between the sets of pleopods and swimmerets, there will be an extra pair of pleopods if it is a male. Sometimes they’re dark colored but usually white or light. A female will lack this extra set of pleopods, simply having “holes.” All marbled clone crayfish (marmorkrebs) will lack the extra pleopods because they’re all female.

Crayfish can be great pets. Once you’ve chosen which crayfish you would like to adopt, please do individual research on the species! There’s always something new to learn and additional ways to provide the most for your mudbugs! Different species of crayfish seem to have different temperaments. This can be a great thing, as breeders and hobbyists can choose one that meets their goals and capabilities.



Probiotics

~Contributed by Adam Welu

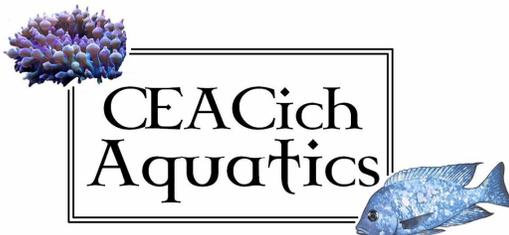
On the quest for a better filtration setup people often overlook small things that could amplify the waste consuming power of their current filtration. Probiotics have been used in large aquaculture facilities for years, unknown to most hobbyist it could be a great asset. There are many probiotic strains and many could be effective. I'll just go over a brief introduction and you can further research and formulate your own opinion.

Probiotics in the water column help by "digesting" sludge and other detritus at a much faster rate much as they help to break down foods that pass through a person's stomach. This in turn can act as a "pre filter" in a way that it will help break down the gunk trapped in your filter pads at a rate considerably faster than the beneficial bacteria in your aquarium can by itself. This leads to your filter performing more efficiently, and with proper maintenance, potentially requiring less water changes to remove excess nutrients/nitrates.

There are several commercial products as well as foods that in a round-about way include a form of probiotic or "bacterial spore" that either "increase digestion" or just allow the waste product to break down more easily. These in turn make the filters' job easier and allow it to work more efficiently. Some foods that include probiotics include Hikari Bio-gold, some Ken's Fish formulas and several others. Some ingredients to look for would be Dried Bacillus Subtilis Fermentation Product or Dried Bacillus Licheniformis Fermentation. I have read that higher quality foods with better ingredients usually contain more digestible ingredients so your fish will have less waste anyways; however that is entirely another topic.

Forms of probiotic that are water additives are generally found in the form of "sludge reducers". Some known brands are FritzZyme Monster 360, Microbe-Lift Pond Sludge Away and others. Aquarium specific brands are generally more expensive and some powdered versions of Septic cleaners are known to utilize probiotic spores. I would recommend further research however as using the wrong product could be detrimental to your fish, the liquid versions can be quite toxic.

**"These in turn
make the filters'
job easier and
allow it to work
more efficiently."**



<http://ceacichaquatics.org/>

<https://facebook.com/groups/ceacichaquatics>

<https://facebook.com/ceacichaquaticsinc>