

Fish Keeping Tips and Tricks

By Stephen Raisner

Overview

- Less traditional species
- Acclimation and Prevention
- Invertebrates
- Foods

Plecpos

- Plecos are the go to algae and tank cleaner
- Over 2000 species to choose from
- Ancistrus(bushynose plecos) are great for small systems
- Most common are large species that regularly exceed 2 feet



Pacu

- Large omnivore that grows fast and eats almost anything.
- Can grow to be over 4 feet
- Has teeth similar to a human



Red Tail Catfish

- Common Fast growing catfish
- Can grow to be over 5 feet
- Often kept in large indoor koi ponds



Garras

- Garra Ruffa and Garra flavatra
- Temps from 38 – 80
- Can climb in your pipes. If it flows to an area that has no food it can go back from where it came
- Will happily breed in cooler AP systems or rafts
- AKA doctor fish



Chinese High Fin Shark

- Temps 35 – 90
- Great option for systems too cold for plecos
- Loves hair algae in outdoor systems
- Is commonly kept to keep koi ponds free of algae in areas where ponds freeze over



Live Bearers

- Mollies and Flagfish are the best options because they love to eat algae
- Mollies can live in fresh, salt, and everything in between. Mollies are the hardiest fish to cycle with if choosing to cycle with live fish
- Great for small systems or keeping roots debris free
- Easily breed in most systems can also be used as fish food



Acclimation

- Best to drip acclimate
- To drip acclimate take an airline, place one end in your fish tank and suck on the end to start the siphon. Next tie a knot in the line so that it drips instead of flows and then let it drip into the fish bag or bucket containing your new fish.
- This accounts for PH and temperature
- Should be done this way for scaleless fish or invertebrates

Prevention

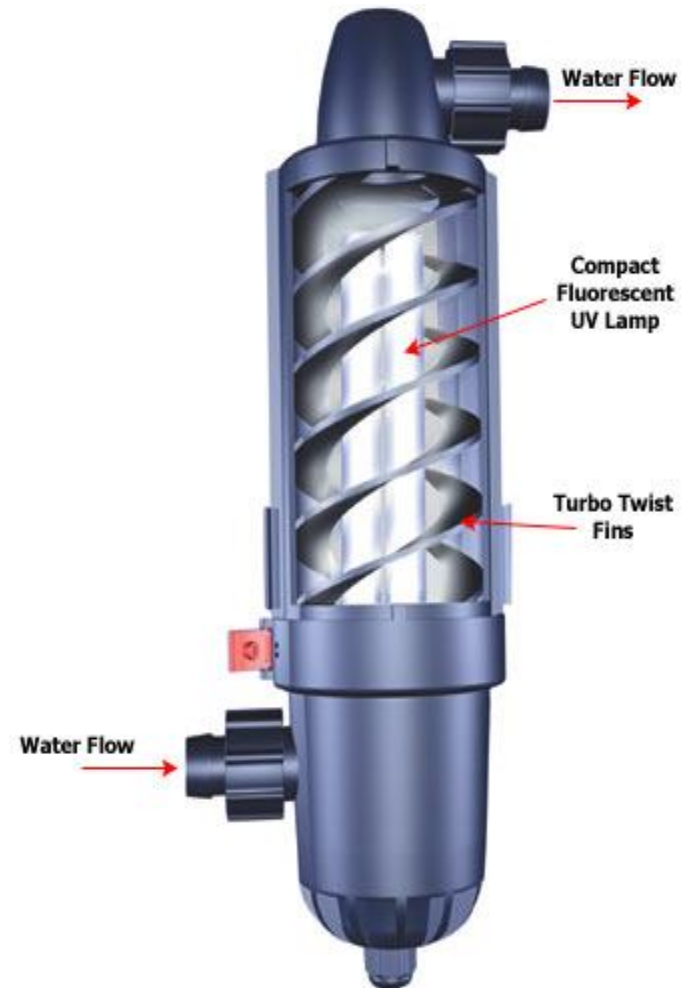
- Heaters or the lack of a heater are the #1 cause of disease in aquaponics
- With out a heater you have no minimum temperature and can cause temperature swings that are to fast for a fishes immune system to handle
- Keep your temperatures as constant as possible
- No gas lines near the tank *
- New fish is another common source of disease
- Aerosols also can be killers

Salt dips

- Salt dipping new fish is a great way to kill external parasites or help a fish with swim bladder issues
- Mix 1.25lbs of aquarium salt in a 5 gallon bucket and place the fish in it for 1.5 to 2 minutes. The extreme salinity change will kill external parasites such as ich, anchor worm, fish lice, and flukes as well as there eggs
- Is very gentle on the fish and can be repeated daily until an issue is gone
- Also helps to reset a fishes swim bladder if they accidently swallow to much air

UV Sterilizers

- Best way to prevent algae and parasites such as ich and flukes
- Can be run continuously with no ill effect on bacteria or water quality
- Fast way to eliminate green water in outdoor systems
- Kills parasites when they are in their larval, free-swimming stage and are looking for a host.



Invertebrates

- Shrimp can be a great way to maintain raft systems
- KH is critical to invertebrates. Never let your KH go below 2 or you risk killing them and there eggs
- Low KH is the #1 reason for invertebrate mortality and infertility
- Prefer nitrates under 80

Cherry Shrimp

- The best shrimp for aquaponic raft maintenance
- Easy to breed and reproduces in large numbers
- Extra shrimp flow to your fish and make great fish food as well
- Happily eats algae and organic debris that can harm roots
- Small, most are under an inch



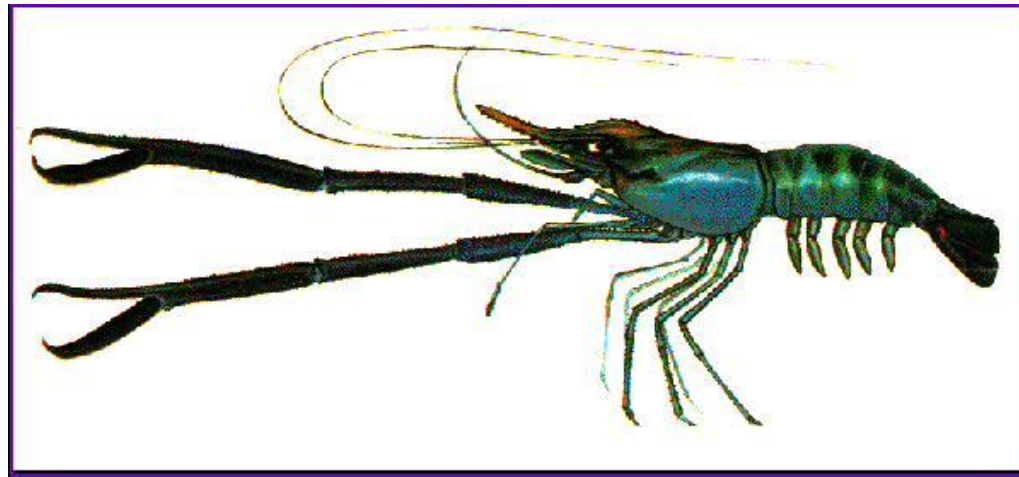
Fresh water mussels

- Great for keeping water clear and reducing algae in the water column
- Can be hard to find for sale
- Calcium levels are important for mussel health



Prawn

- River prawn are a great way to get more kinds of meat from your system
- Are commercial farmed and easy to purchase as juveniles
- 3 main species available
- Are becoming more and more common



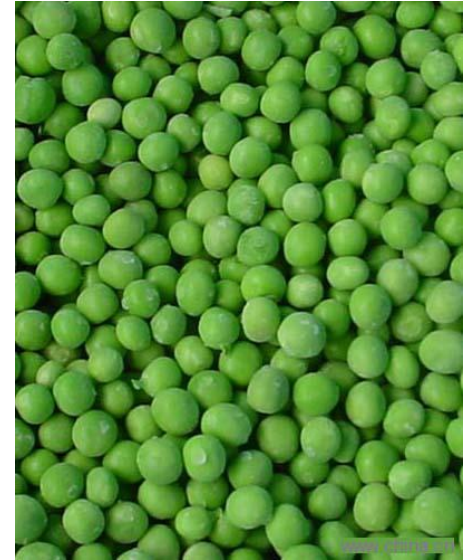
Crayfish

- Many species are self cloning and do not require a male and female to breed
- Marbled crayfish are a great edible size and fast growing cloner
- Aggressive if not housed properly, they need a place to sit and hide. PVC honey combs make great crayfish apartments
- Cloth scraps also make great cheap hidaways
- Will grow faster if food is always available



Fish Foods

- Live
- Plant matter
- Premade foods



Live foods

- Worms - easy to breed; easy to raise; medium to low nutrient content
- Roaches - Super easy to raise and breed; high nutrient content; dubia and hissing
- Soldier flies - easy to raise and breed; high nutrient content
- Crickets cheap and relatively easy to breed
- Meal worms relatively easy to breed
- Super worms - easy to raise and breed
- Live foods produce waste high in nitrogen



Plant Matter

- Feeding your tilapia or other herbivore / omnivorous fish more plant matter is a great way to help raise you phosphate
- Frozen peas is a great cheap fish food
- Sliced cucumber or squash is another great fish food
- Romaine, leaf lettuces, broccoli and collared green leaves are also great options

Premade Foods

- Pellets are great because they dissolve slowly and don't break down as fast as flake foods
- Flakes are great for small systems or small fish as well as feeding mussels or filter feeding shrimp
- Algae wafers are also a good way to supplement the diet of your herbivores as well