FEEDING TINY FRY

WHAT TO FEED BEFORE BABY BRINE SHRIMP

By Chase Klinesteker

A COMMON PROBLEM

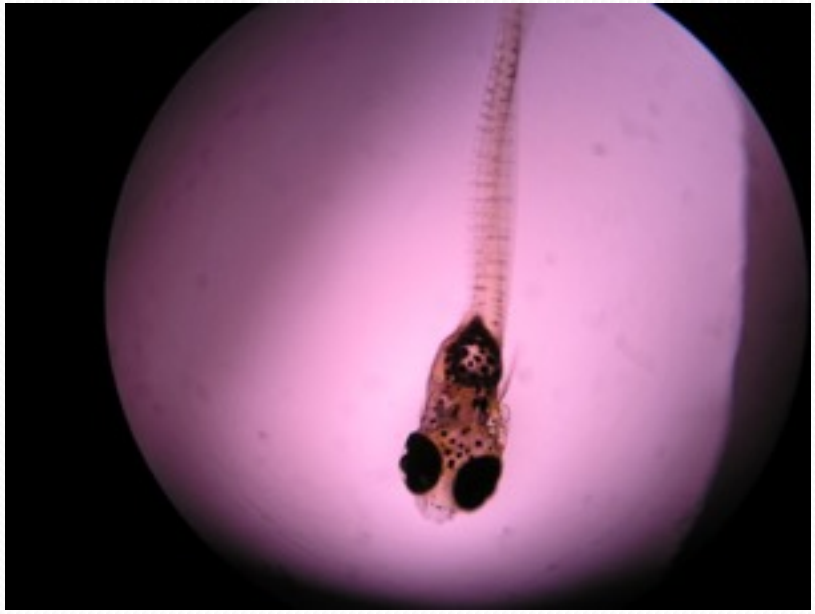
- One of the most difficult aspects of raising many species of tropical fish is feeding tiny fry that are too small to take newly hatched brine shrimp
- Often small foods are fed too soon or in excesses that pollute the water (tiny fry don't eat much). Feed frequently but in tiny amounts, and add snails to clean. A sponge filter and areation can help
- Fine foods are often not kept in suspension and in front of the fry. Many will not search for food. Use light bubbler to keep particles in suspension
- Fry are usually more sensitive to pollution than adults and need frequent water changes. Put fine nylon over siphon intake to avoid removing fry

MANY SPECIES HAVE VERY TINY FRY. THIS INCLUDES SOME:

- RAINBOWS
- TETRAS
- RASBORAS
- GOBIES
- DISCUS
- UARU
- BARBS
- CATFISH
- ANABANTOIDS
- DWARF CICHLIDS
- KILLIEFISH
- WHITE CLOUDS
- DANIOS

RAINBOWS

Millennial Rainbow Pair



Millennial Rainbow (Glossolepis pseudoincisus) fry under microscope

Some rainbow fry are extremely small and may take 2 or more weeks on very tiny foods before they can accept newly hatched brine shrimp (e.g. Melanotaenia and Threadfin Rainbow).

MADAGASCAR RAINBOW

Bedotia geayi is a beautiful and popular rainbowfish that lays eggs in spawning mops. Newly hatched fry usually require several days on small foods before they can eat baby brine shrimp.

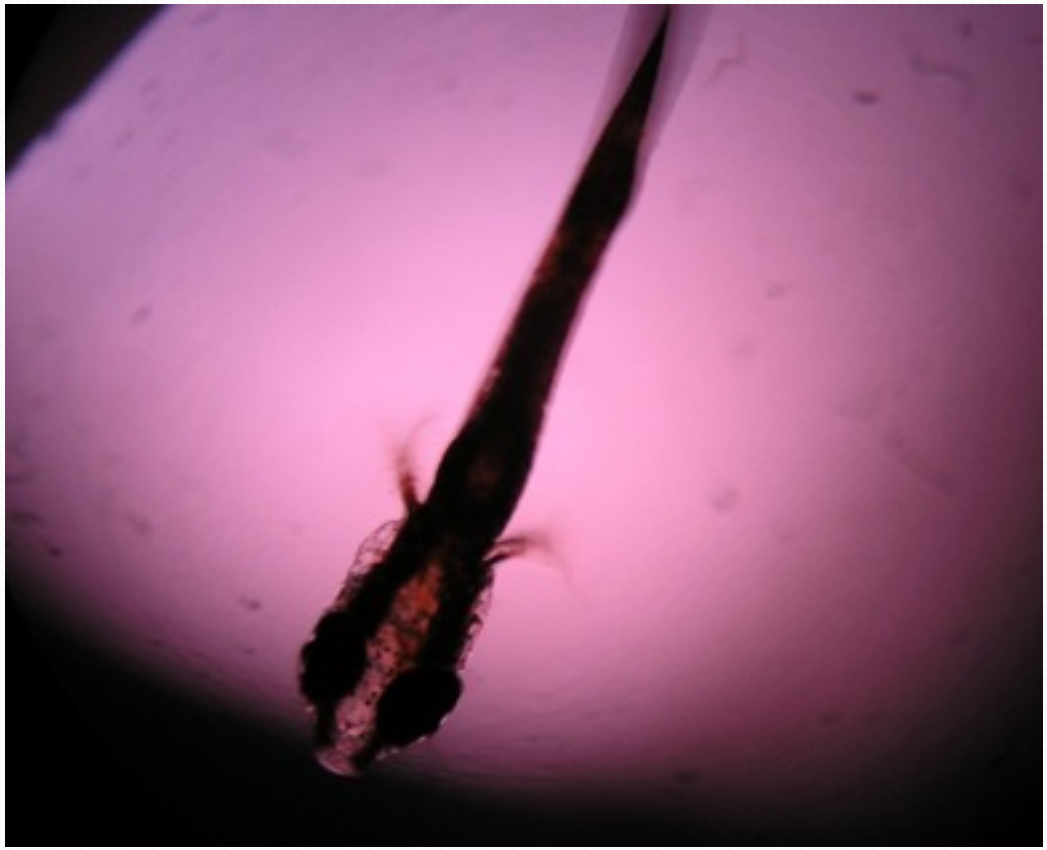
DWARF RED NEON RAINBOW

Pseudomugil c.f. paskai (iriani) fry need 3-4 days on tiny foods. Many Pseudomugil species fry will take baby brine shrimp when free-swimming

CELEBES RAINBOW

Marosatherina ladigesi eggs hatch in 5-10 days. Once free-swimming, the fry will need tiny foods for about 1 week

DIPTAIL PENCILFISH



Nannostomus eques fry require 4-5 days on tiny foods. In this 100 power magnification, a baby brine shrimp would be larger than the frys' head

BLUE TETRA

Boehlkea fredcochui fry need tiny foods for 5 or more days. They are very reclusive, transparent, and difficult to see.

KING TETRA

Impaichthys kerri fry avoid light and need tiny foods for 3-4 days

VARIANCES

- If and how long a given species' fry need tiny foods can vary some due to:
- ----Breeding stock vitality
- ----How long in domestic cultivation
- ----Foods fed to breeders
- ----Technique of aquarist
- ----Individual judgement
- ----Tank environment

BLACK NEON TETRA

Hyphessobrycon herbertaxelrodi fry are quite small and require a couple of days of tiny foods

BLACK PHANTOM TETRA

Black Phantom Tetra fry require tiny foods for 2-3 days before taking baby brine. If fed baby Brine shrimp right away, a few fry will grow fast and outcompete the others and survivors will be fewer in number.

GLOWLITE TETRA

Hemigrammus erythrozonus is a peaceful, long domesticated, and easy to breed tetra whose fry will take newly hatched brine shrimp upon free-swimming

ORANGE FLAME TETRA

Hyphessobrycom flammeus is an easy to breed tetra, and the fry only require a day of tiny foods

CONGO TETRA

Phenacogrammus interruptus lays large eggs, but the fry require tiny foods for 2-4 days after free-swimming. Also, the eggs hatch over 2-3 days and tiny foods may be needed for a longer time.

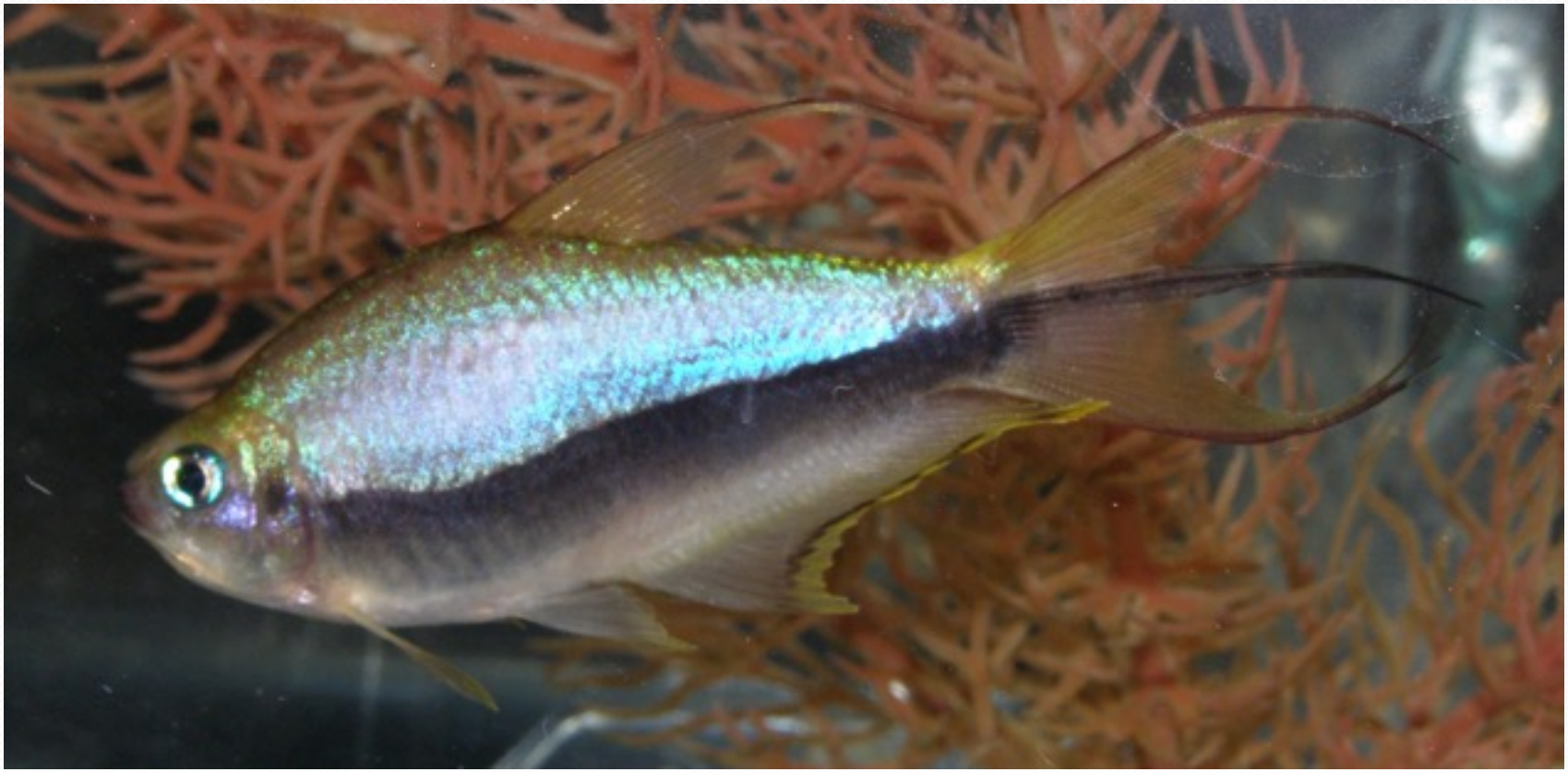
ROSY TETRA

Hyphessobrycon rosaceus fry require 3-4 days on tiny foods before they will accept newly hatched brine shrimp

DIAMOND TETRA

Moenkhausia pittieri fry require 2-3 days of tiny foods

EMPEROR TETRA



Nematobrycon palmeri are not overly prolific, and the fry require at least 4-5 days on tiny foods

RUMMYNOSE "RASBORA"

Sawba resplendens fry are tiny, extremely light sensitive, hard to see, and require tiny live foods for over a week

HARLEQUIN RASBORA

Rasbora heteromorpha fry require at least 2-3 days on tiny foods

UARU AND DISCUS

- Both are slow, deliberate fish where the fry eat off the parents' body slime
- The fry will not take brine shrimp right away but can be artificially fed if moving food comes to them
- Tiny food particles will be taken if there is enough water movement to keep them in suspension
- Must be sufficient food, but need frequent water changes to remove pollution

BLACK RUBY BARB

Barbus nigrofasciatus fry will need 2-3 days on tiny foods. They search for bottom foods so microworms are a good choice

NARAYANA BARB

Puntius narayani is a rare and difficult to breed barb. The fry will need 3-4 days on tiny foods

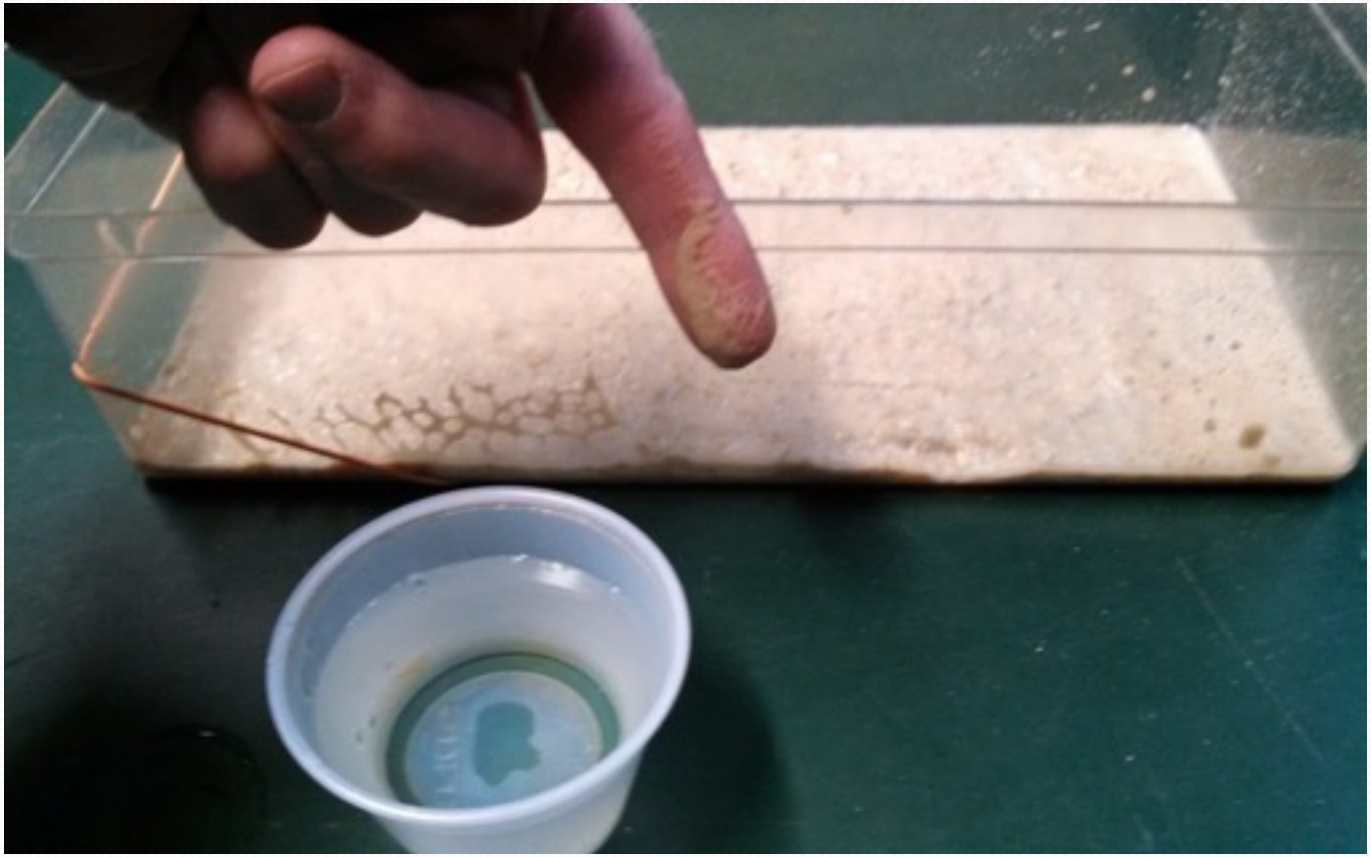
PIGMY LEOPARD CATFISH

Synodontis petricola lays hundreds of small eggs and the tiny fry require at least 2-3 days of tiny foods. Sponge filter squeezings and microworms worked

FOODS FOR TINY FRY INCLUDE:

- MICROWORMS
- VINEGAR EELS
- PARAMECIUM, INFUSORIA
- NATURAL
- SPONGE FILTER SQUEEZINGS
- FLAKE FOOD DUST, APR, DRY
- LEAF LITTER
- LIQUID DUST, LIQUIFRY
- CATFISH CONNECTION

MICROWORMS



Use uncooked 1-minute oatmeal, moisten to soggy, add culture. Collect with finger and put in water. Use eyedropper to dispense . They will live for several hours in water. A whitish color on tank bottom indicates overfeeding.

VINEGAR EELS

- Grow in jar of cider vinegar cut 50% with water
- Add 2 pieces of cut apple 1 inch square
- They feed on the vinegar and bacteria from the apple
- Collect at the top of the culture: need oxygen
- Easy to cultivate and very hardy
- Very tiny live food, remains suspended
- To harvest, pour through coffee filter or cotton ball

PARAMECIUM/INFUSORIA

- Tiny, single celled animals with cilia hairs for mobility.
- Smaller than vinegar eels, remain suspended
- Culture in a gallon jar.
- Use a small rabbit pellet, corn leaf, hay, or lettuce to feed
- Cannot be seen unless use light from behind
- Harvested by removing water from culture and putting in fry tank. Add fresh water to culture

NATURAL

- Remove all fish before introducing tiny fry
- Well established aquariums have many small microorganisms present on the plants (e.g. java moss), glass, and substrate. These will feed small numbers of fry
- The more heavily planted and longer established tanks will do better, although it is best to supplement
- Find a balance. Low air and filtration will allow the microorganisms to multiply
- Mulm present is a plus. Occasionally stir it up
- Live plants make hydra growth likely after feeding brine shrimp

SPONGE FILTER SQUEEZINGS

- Take an established, working sponge filter and squeeze part of it out into a small pan of water. The resulting suspended mulm contains microorganisms that will feed tiny fry when added to the fry tank.
- Watch fry bellies to see if eating enough. Add more squeezings if needed
- Occasionally stir up settled mulm with stick or baster to put food back in suspension for fry

FLAKE FOOD DUST, APR, DRY

---Crush flake food (50% spirulina) with mortar and pestle, add some APR for tiny fry, and put in a squeeze bottle to blow small amounts of the dust on the water surface.
---Works well for all surface feeders, especially rainbows, anabantoids, and danios
---Keep light water movement with air to break surface tension and spread out food
---Use snails to help clean up

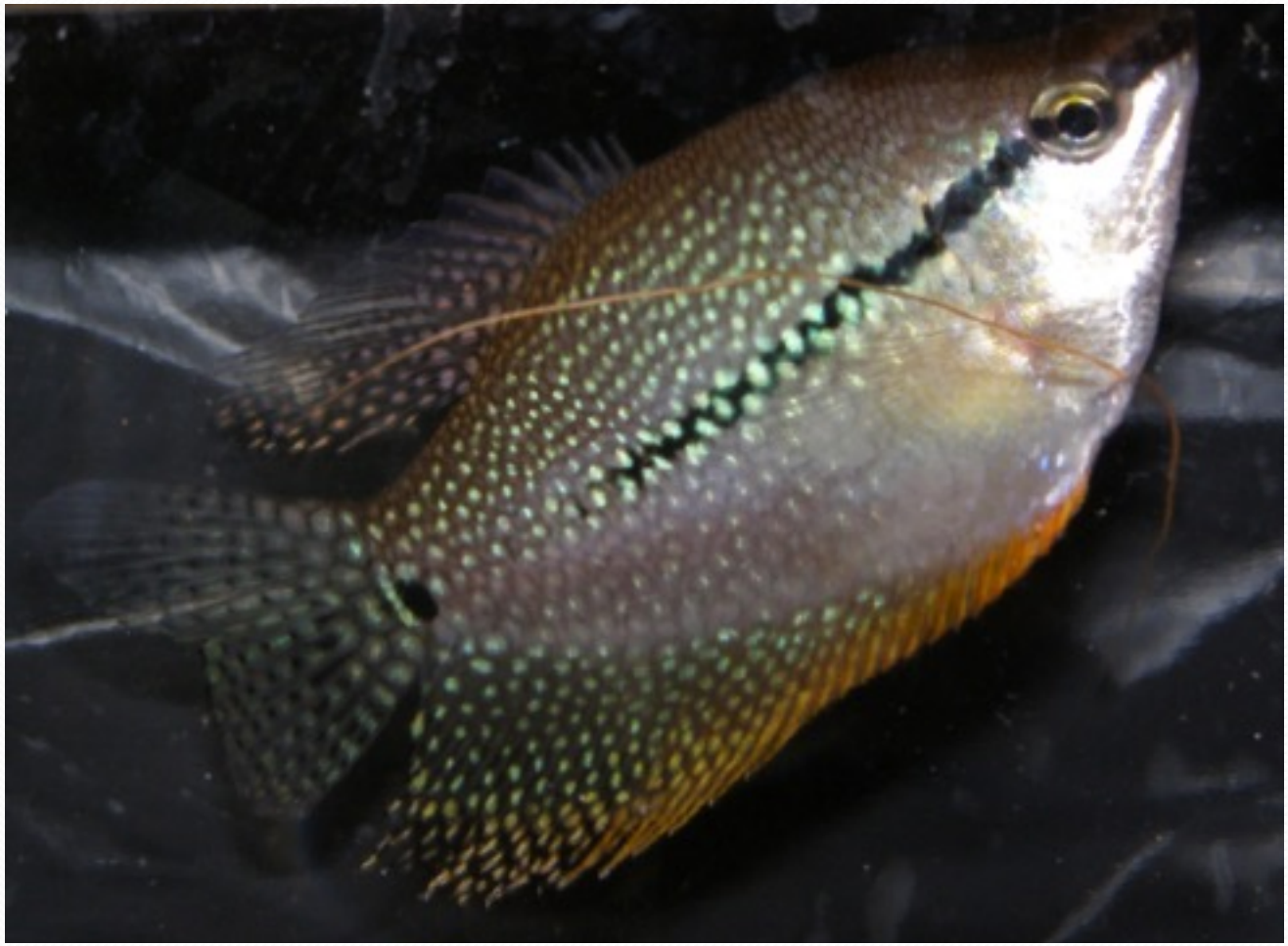
LEAF LITTER

---Leaf litter is a natural for almost all waters, and its' decay produces films of tiny organisms to feed fry
---Oak leaves will tint the water with tannins, which soften and acidify it. This is especially helpful to species from blackwater areas
---Corys, plecos, and barb fry especially like to pick at these films for food
---If tied together in a "Leaf Tree" they are not as messy and easier to remove

LIQUID DUST, LIQUIFRY

---Put a small amount of the powdered flake food dust and some water in a glass cylinder and shake vigorously
---Allow the larger particles to settle out
---pour off the cloudy liquid containing suspended food and feed to the fry with an eye-dropper
---When a very slight cloudiness is noted, stop adding the suspended food
---Gentle water movement in the fry tank helps keep the particles in front of the fry
---Feed 2-3 times per day when water clears. Use snails to help clean up
---The old "Liquifry" is sold today in a tube by Wardley under the name of "Small Fry". Feed sparingly .

PEARL GOURAMI



Trichopodus leerii and many other anabantoid fry need a week or more of tiny foods

RED FLAME RICEFISH

Oryzias wowrae fry can be started on microworms and soon after will take baby brine shrimp. Note male has deeper body than female

PERSIAN PUPFISH

Aphanius mento lays small eggs but a 15 day incubation and relatively large mouth of the fry allows them to eat newly hatched brine shrimp and microworms

CLOWN KILLIE

(Pseudo)epiplatys annulatus is a small killiefish that lays extremely tiny eggs. The fry will take 1-2 weeks to get large enough to take baby brine. It is beautiful, but a difficult species to breed and raise

GLOWLITE DANIO

Danio choprae fry have small mouths and require tiny foods for 3-4 days . They will take powered dry food on the surface.

CELESTIAL PEARL DANIO

Celestichthys margaritatus lays fairly large eggs, but the fry have small mouths and need tiny foods for 3-4 days. They do not feed on the surface

CATFISH CONNECTION

Corydoras sterbae

One of the easiest ways to raise surface swimming tiny fry (danios, rainbows,
white clouds, etc.) is to place them in a tank of corydoras catfish and just feed the catfish. They cannot eat the fry on the surface and are messy eaters, leaving plenty of food particles for the fry.

WHEN TO START BABY BRINE

--Start with a drop and look for orange bellies. If so, use more drops.

--If less than half the fry cannot eat them, go back to tiny foods

--Use a combination until all fry have orange bellies, then discontinue tiny suspended foods

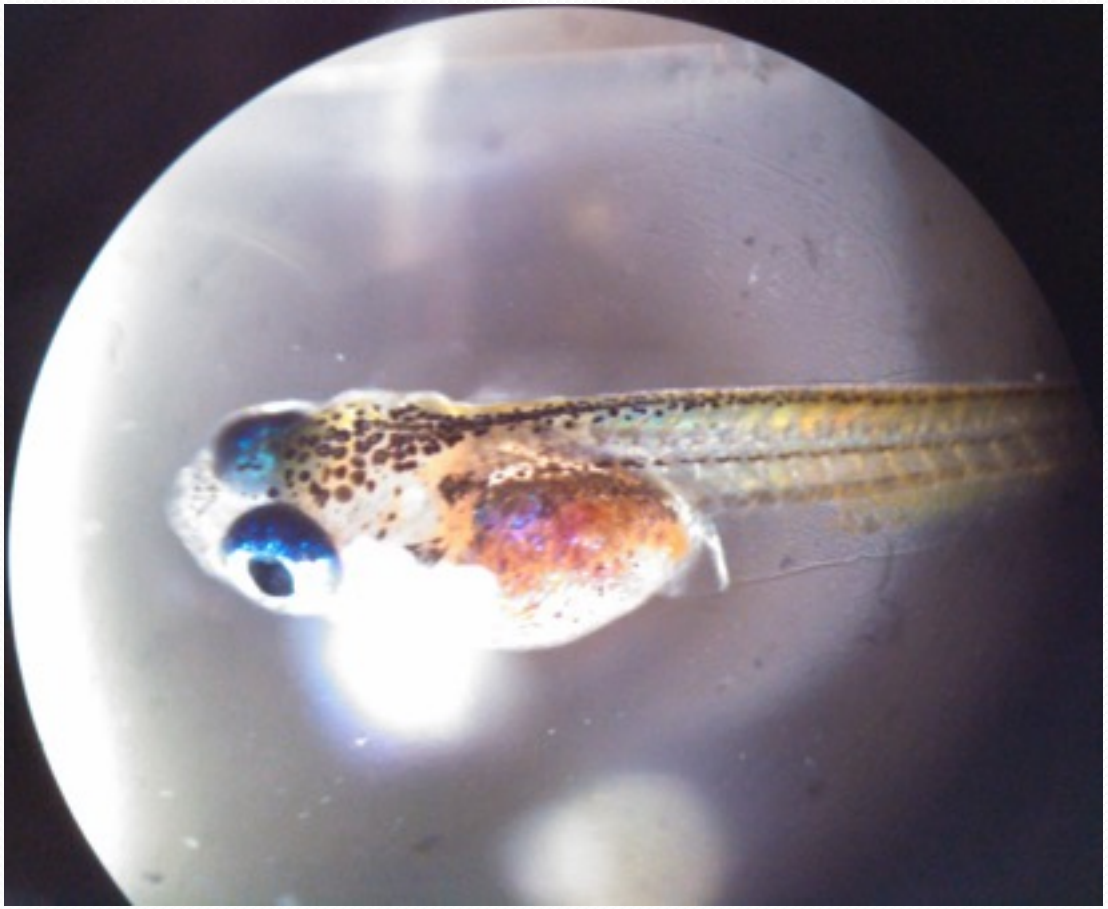
--If eaten, powdered surface foods can still be used

--Remember, overfeeding should be avoided. They have tiny stomachs and excess food will pollute the water. Feed small amounts 2-3 times per day

--Excess baby brine shrimp will encourage hydra growth

--For bottom feeders, microworms can now be used

ORANGE BELLIES



Red Neon Rainbow fry after beginning on baby brine shrimp

THE END