

V. Steps/Procedures:

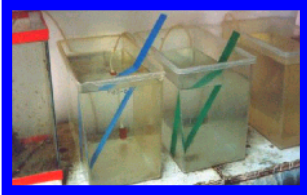
1. Set up 2 aquaria

- Place the egg-collector diagonally to ensure sticking of the adhesive eggs. (egg-collectors must be long enough to reach the other side of aquarium)



- Place aeration (Aeration must be very gentle)
- ### 2. Place a pair of breeders on the prepared aquarium.
- (Angelfish are monogamous therefore proper identification of pair is a must to ensure optimum reproduction.

3. Remove the egg-collector after fertilization and place it on the



other one. Observe proper handling of eggs. Aeration of eggs must be very gentle to ensure hatching. Eggs are treated with hydrogen peroxide. (two days after spawning).

- ### 4. Feed the larvae with artemia starting on the fifth day after spawning until two weeks. Feeding is once a day. Thereafter, artificial feeds will be introduced.



5. Let the set-up stand for 3 weeks.

- ### 6. After 3 weeks, transfer the fry to grow-out tank/hapa or pond

**MAY HARVEST 300- 500 FRY PER SPAWNING
POSSIBLE TO SPAWN WEEKLY**

Breeding of ANGELFISH



Para sa karagdagang kaalaman, sumangguni sa:

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Breeding of ANGELFISH

General Description of an Angelfish

- the shape is very atypical of the cichlide pattern, being depressed laterally to form an almost circular disc
- the dorsal and anal fins are elongated and point backwards
- the tail fin is lyre-shaped with extremely elongated angles and the rays of the pelvic fins show extreme lengthening
- the silver grey body is traversed by dark bars, the most posterior of which extends into the dorsal and anal fins
- the second is midway along the body while a third passes through the eye
- the base of the tail fin is also marked by a dark bar
- grows up to 6 in. long and 8 in. deep.
- can reach up to 3-5 years in good condition

Four species of angelfish:

1. *Pterophyllum eimekei*
2. *Pterophyllum scalare*
3. *Pterophyllum altum*
4. *Pterophyllum leopoldi*



Breeders Selection:

Look for strong, robust and active fish/feeders with long healthy fins and good contrast in colors. Avoid individuals with abnormal operculum/gill covers.

3 ways to obtain a breeding pair of angels

- buy a pair which already spawned and produced fertile eggs
- buy a number of angels and wait for them to pair off
- attempt to select a pair from a number of large angels, using own judgement in sexing them

Sexing Angelfish

I. Male/Female Characteristics:

Male

- usually big in size
- head is partially bent
- breeding tubes or genital papillae is smaller and carried at an angle closer to vertical
- the sides of mature males appear quiet flat

Female

- smaller in size
- smooth curve of head
- vent is said to be more prominent
- breeding tubes or genital papillae is largers and projects slightly backwards
- genital papillae is larger and more blunt
- slight abdominal bulge or thicker in body



II. Maturation/Spawning Age

- spawning is whole-year round
- best age for pairing and spawning is when the angels are a year old.
- after 7-18 days of spawning, angelfish will eminently spawn again
- 500-1,000 eggs are laid per spawning
- an 80% hatching and survival rate is normally attained

III. Characteristics of Breeders About to Spawn:

- Appearance of genital papillae
- both male and female's papilla is in protruding condition
- 2-3 days before spawning, the pair selects and clean the spawning site, using their mouths until satisfied

IV. Breeding Facilities/Equipment Needed:

- 2 aquaria about 15 gallons capacity
- scoop net
- aerator
- egg collector (strips of slates, clay, glass tubes, etc.)