

L-10/KVK Lohit/2009-10

MAGUR

CULTIVATION



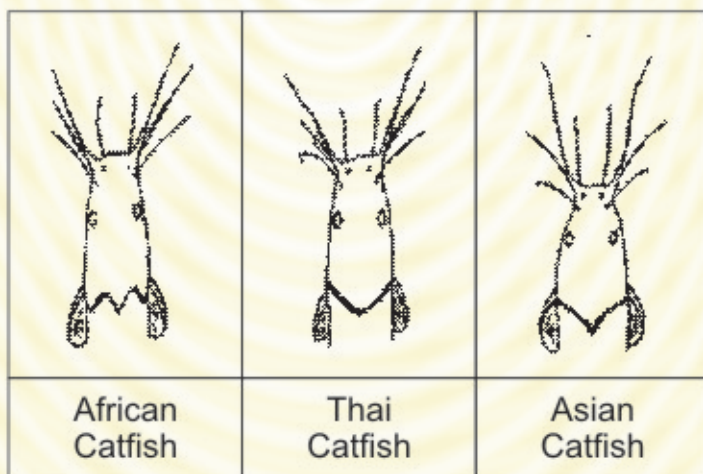
भारत
ICAR

Krishi Vigyan Kendra
Lohit District
Arunachal Pradesh

Catfish is an important freshwater fish known for its esteem and good market demand owing to the low fat content and few intramuscular spines. Catfish culture requires less area, can tolerate poor water quality and can be stocked in high density. They are hardy and capable of breathing atmospheric air due to their accessory respiratory organ. They are suitable for culture in areas of low dissolved oxygen (shallow foul waters, derelict ponds and swamps). Their culture involves low risk and simple management and can be done in existing ponds in the farmers' premises.

Among the different species throughout the world, in India three types are found:

- Asian catfish (*Clarias batrachus*)
- African catfish (*Clarias gariepinus*)
- Thai catfish (*Clarias macrocephalus*)



Culturable area: A water area of 0.1 ha with a depth of 50-75 cm is ideal for air-breathing fish culture. As there is not much wastage of energy through respiration, good yield could be expected. Like carp

ponds, air breathing fish culture ponds need not be fertilized by chemical and organic fertilisers. The ponds should be predator free and pond bottom should be raked for the liberation of unwanted gases, parasites etc. The inner sides of pond dykes should be either firm with heavy log or wood, or fenced with bamboo, cane or wire screens to a height of about 50 cm. This will help in prevention of climbing and burrowing. Cage culture of air-breathing fish may also be undertaken in running water systems.

Stocking details: The transportation of air-breathing fish is not at all a problem. It can be transported in open watering carriers (transportation time less than six hours) with a small amount of aquatic weeds.

For monoculture of air-breathing fishes, a stocking density of 50,000/ ha with an individual size of 10 cm may be maintained. Mixed culture with carp (only asian catfish) can also be done with proper management and care. In such case the catfish should be released in the pond when the carp grows to a minimum of 300g each, so that the former may not prey on the latter.

Feeding: It needs an abundant food supply like tadpoles, trash fish, meat etc. for the growing air-breathing fishes. In order to enhance the growth, supplementary feeds should be provided, for example:

- ☛ Trash fish and house hold waste (1:1),
- ☛ rice bran, mustard oil cake and trash fish (2:1:1),
- ☛ rice bran and poultry feed (3:1) and
- ☛ biogas slurry and rice bran (1:2).

Such feed may be given daily at the rate of 8-10 % of body weight.

Common Diseases :

Symptom	Causing agent	Prophylactic measures
Ulcers, Redness, Skin disease	Bacteria	1-2 ppm Oxytetracycline, Chloramphenicol with feed,
Dropsy- Accumulation of fluid Inside the body cavity.	Bacteria	Dip treatment in 5 ppm potassium permanganate.
Protozoan	Trematodes, cestodes, nematodes	Better to harvest the fishes

Growth and Production: The marketable size of African, Thai and Asian catfish could be obtained in a period of three and eight months respectively. An average air-breathing fish (asian catfish) yield of 3-5 t/yr/ha can normally be obtained. Hybrid catfish grows faster than the asian one. With proper feeding and care the hybrid one can grow up to 500g and above within a culture period of three months.

Harvesting: Summer season is ideal for harvesting air-breathing fish. The culture pond is drained out and fish are harvested with help of hand nets or scoop nets.

Prepared by	Dr. Debasis Sasmal <i>Subject Matter Specialist (Fishery Science)</i>
Published by	Programme Coordinator KVK-Lohit District Under NRC on YaK (ICAR) Dirang, West Kameng District, Arunachal Pradesh Phone no: 03806 200100 & 222381.
Design and layout	Mr. Shyam Narayan Prasad Md. Ziaur Rahman