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Journals/Magazines Aqua Farm News

1995

The life of a fish

Aquaculture Department, Southeast Asian Fisheries Development Center

Southeast Asian Fisheries Development Center, Aquaculture Department (1995). The life of a fish. Aqua Farm News, 13(6), 16-17.

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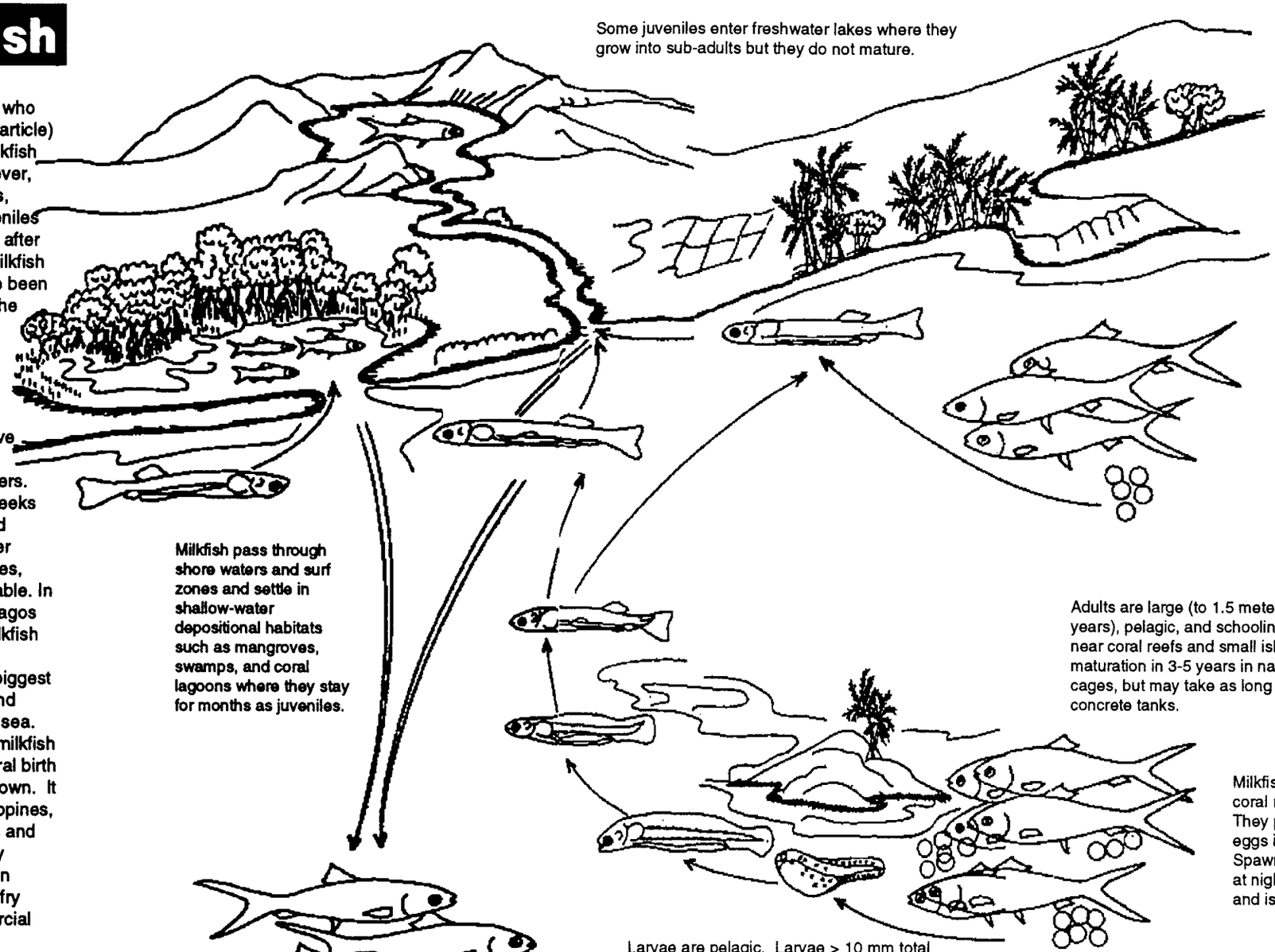
The life of a fish

SEAFDEC scientist Teodora Bagarinao -- who had studied and collated information (this article) on milkfish in the wild -- notes that the milkfish life history is a series of migrations. However, little is known about the actual movements, particularly during the period after the juveniles leave the nursery grounds, and the period after the spawning of adults in nature. Since milkfish larvae are used in aquaculture, there have been attempts to link the spawning grounds to the inshore collection grounds, that is, to find the mechanism for the appearance of milkfish fry en masse in shore waters. No one has really been successful. Available evidence, Dr. Bagarinao says, indicates that milkfish larvae move by active migration and passive transport from offshore spawning grounds into shore waters. Then they enter and settle in mangrove creeks and swamps, coral lagoons, estuaries, and sometimes freshwater lakes. Shallow-water habitats appear to be obligatory for juveniles, while freshwater habitats are used if available. In the Philippines and other oceanic archipelagos where freshwater bodies are few, most milkfish probably never see freshwater.

Much remains to be studied. The biggest gaps are in milkfish ecology, physiology and behavior, including the migration habits at sea. Stock assessment has not been done for milkfish anywhere, and population dynamics, natural birth rates and mortality rates are virtually unknown. It is difficult to study wild milkfish in the Philippines, says Dr. Bagarinao, because the juveniles and adults are not fished in quantity -- probably because inshore larvae are. The effects on milkfish population genetics of the current fry fishery, the production of larvae in commercial hatcheries, and searanching of hatchery-produced larvae will need to be monitored. There must be a strong effort to protect coastal habitats so that aquaculturists and consumers may continue to benefit from milkfish.

Literature citations are given in full in the book **Biology of Milkfish *Chanos chanos* Forsskal** published by SEAFDEC/AQD in 1991 and in the review paper by Dr. Bagarinao on *Systematics, distribution, genetics, and natural life history of milkfish* in the journal **Environmental Biology of Fishes** 39:23-41 (1994).

A summary of the natural life history of milkfish (similar to this one) appeared in **SEAFDEC Asian Aquaculture** Vol. XVI No. 3 September 1994.