

# Marine Fish and Culture

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# Historical Perspective

- Aquaculture has a tradition of about 4000 years. It began in China, possibly due to the desires of an emperor to have a constant supply of fish. It is speculated that the techniques for keeping fish in ponds originated in China with fishermen who kept their surplus catch alive temporarily in baskets submerged in rivers or small bodies of water created by damming one side of a river bed.

- Another possibility is that aquaculture developed from ancient practices for trapping fish, with the operations steadily improving from trapping-holding to trapping-holding-growing, and finally into complete husbandry practices (Ling, 1977).

- A number of aquaculture practices are used world-wide in three types of environment (freshwater, brackishwater, and marine) for a great variety of culture organisms. Freshwater aquaculture is carried out either in fish ponds, fish pens, fish cages or, on a limited scale, in rice paddies.

- Brackishwater aquaculture is done mainly in fish ponds located in coastal areas. Marine culture employs either fish cages or substrates for molluscs and seaweeds such as stakes, ropes, and rafts.



- Culture systems range from extensive to intensive depending on the stocking density of the culture organisms, the level of inputs, and the degree of management. In countries where government priority is directed toward increased fish production from aquaculture to help meet domestic demand, either as a result of the lack of access to large waterbodies (e.g., Nepal, Central African Republic) or the over-exploitation of marine or inland fisheries (e.g., Thailand, Zambia), aquaculture practices are almost exclusively oriented toward production for domestic consumption.

These practices include:

- (i) freshwater pond culture;
- (ii) rice-fish culture or integrated fish farming;
- (iii) brackishwater finfish culture;
- (iv) mariculture involving extensive culture and producing fish/shellfish (e.g., oysters, mussels, cockles) which are sold in rural and urban markets at relatively low prices.