## FISH AND SHELLFISH DISEASES IN CULTURE SYSTEMS

## The Dispatch of Diseased Specimens

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farmed species of fishes and shellfishes become susceptible to the attack of pathogens which may result in mass mortality. In order to prevent such catastrophies, proper hygiene and prophylaxis is vitally necessary. Besides this, the significance of periodic disease check up, need not be over emphasized, as this would enable us to monitor the health of the cultivated population.

For treatment of the diseased animals outside the country, several fish disease laboratories and hospitals are available, but for such work in India, there are hardly any centres. Thus, diseases even in farmed are neglected.

Normally if diseases among the cultivated fishes are detected in time, specimens or samples may be sent to the nearest fish pathology laboratory for disease diagnosis and for taking preventive measures. The lack of such facilities is a great handicap. Presently the research institutes such as Central Marine Fisheries Research Institute, Central Inland Fisheries Research Institute, and the College of Fisheries of Bangalore Agricultural University, Mangalore are centres where the expertise is being built up.

There are certain observations to be made before concluding that the fish stock is diseased. It has to be

first verified that the stock is infected and not poisoned. Poisoning can be well suspected by observing the lack of macro or microscopical signs and symptoms of disease and / or progressive depletion of the standing stock (often sudden onset of death of the entire population is suggestive of poisoning). In this case, the information may be given to the nearest and relevant authorities to take up the case investigation.

If the case is suspected to be due to infection, the specimens may be dispatched in accordance with the following suggestions.

- 1. Forward the diseased species alive, maintaining them in clean sterile glass container \* having filtered habitat water kept upto 60-70% of the container. Clean and U V sterilized polythene bags can also be used.
- No ornamental plants or dead animals, are permitted to be kept in the water, along with specimens for case diagnosis.
- Shock proof wrapper is desired to be kept together with the container.
- In most essential situation, if live animals are not available, the
- \* In the case of emergency, the selected container may be cleaned and sterilized by shaking well with boiling water and then allowing to get cooled.

recently dead ones may be packed in clean and UV sterilized polythene bags with proper closing mechanism. This container may be then counterpacked with ice and saw dust.

- Never deep freeze the specimens for bacteriological analysis.
- No decomposed specimen may be sent for disease diagnosis.
- If the water is essential to be analysed, the sample collected in a suitable size clean and sterile glass container may also be sent.
- 8. All the available informations, ragarding the case, may be furnished in the case study sheet (specimen copy of the case study sheet, Seafood Export Journal., XIV (4): 1982 may be referred).

- Dispatch about ten specimens of average size in relation to volume of the container, preferably each specimen under separate cover.
- If competent advise is not obtained, regarding the cause of epizootics, better, suitably bury or incinerate the diseased and dead animals.
- Avoid consumption of diseased animals.
- 12. Handling of diseased animals should be always with sufficient care to avoid cross infection and associated toxemia.
- External contamination of the sample may be minimized.
- 14. Proper labelling may be provided along with the dispatched specimen.