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Occurrence of fish diseases in freshwater aquaculture in Assam

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The north eastern state of Assam has made considerable progress in freshwater aquaculture in recent years. Fish disease has emerged as an important problem in aquaculture in the state. The present study was undertaken to monitor fish diseases occurring in culture ponds of Assam during 2014-16. The most frequently encountered and lethal fungal disease in cultured fishes of the study area was Epizootic Ulcerative Syndrome (EUS) caused by *Aphanomyces invadans* that caused major losses to fish farmers. EUS was more severe during the winter season and adversely affected a large number of fish species including cultured carps. The rate of infestation was the highest in *Cirrhinus mrigala,* followed by *Cirrhinus reba, Catla catla, Labeo rohita, Hypophthalmicthys molitrix, Ctenopharngodon idella* and *Cyprinus carpio.* Saprolegniasis caused by *Saprolegnia parasitica* was less frequent/ lethal fungal disease than EUS. Commonly observed bacterial diseases (caused by *Aeromonas* spp. and *Pseudomonas* spp.) were infectious abdominal dropsy, columnaris, fin & tail rot and ulcer disease. Infectious abdominal dropsy caused by *A. hydrophila* was the most common bacterial disease affecting all stages of cultured fish followed by fin and tail rot disease caused by *P. fluorescens* and *A.hydrophila*. Argulosis, Ergasilosis, Lernaeosis, white spot disease, Dactylogyrosis and Gyrodactylosis were common parasitic diseases observed. Argulosis caused by *Argulus foliaceus* recorded the second highest incidence rate after EUS causing mortality/ poor growth in cultured fishes. *L. Rohita* was more susceptible to *Argulus* spp. than *C. mrigala* and *C. catla.* Lernaeosis caused by *Lernaea cyprinacea* caused disease and mortality in cultured carps. Other commonly occurring parasitic fish diseases were white spot disease caused by *Ichthyophthirius multifiliis*. There were a few cases of nutritional diseases like pin- head syndrome, lordosis and scoliosis, which were observed in aquaculture ponds having poor nutrition and unfavourable environment. Environment related disease like asphyxiation was also observed in many fish farms.

Key words:Fish Disease, Assam, aquaculture pond

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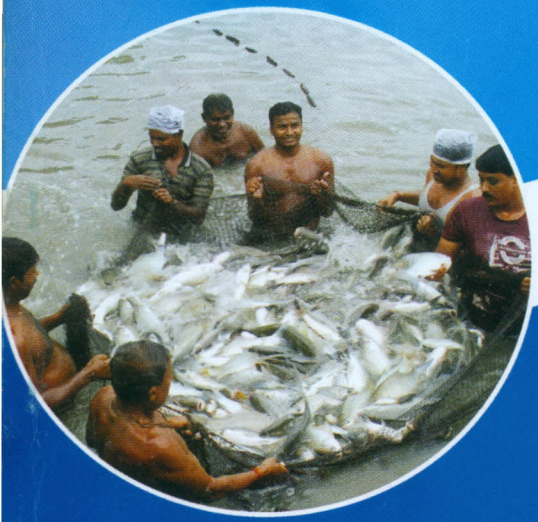

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