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Prevalence of Enterocytozoon hepatopenaei in Shrimp Cultured in Inland Saline Water

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Abstract : Inland saline water resources are gaining the importance in expanding the aquaculture activities to mitigate the nutritional and food security issues of the world. For profitable and sustainable aquaculture practices, scientific farming, biosecurity measure, and best fish health management should be the integral part of developmental activities. Keeping in line with global awareness and trends, the Indian government has taken an innovative step to conduct disease surveillance and awareness programme for aquatic disease through network project. This 'National Surveillance Programme for Aquatic Animal Diseases (NSPAAD)' is being implemented in collaboration of national institutes and state agriculture universities with funding support from National Fisheries Development Board (NFDB), Govt. of India. Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, an NSPAAD collaborator, has been actively engaged in disease surveillance in the Indian state of Punjab. Shrimp farming in inland saline areas of Punjab is expanding at a tremendous pace under the guidance of GADVASU along with the support of State Fisheries Department. Under this national disease surveillance programme, we reported Enterocytozoon hepatopenaei (EHP) infection in the Litopenaeus vannamei cultured in the inland saline waters. Polymerase chain reaction (PCR) based diagnosis was carried out using the OIE (World Organisation for Animal Health) protocol. It was observed that out of 20 shrimp farms, two farms were 1st step PCR positive and two more farms were nested PCR positive. All the EHP positive ponds had shown the white faeces along with mortalities at very low rate. Therefore, implementation of biosecurity and continuous surveillance and monitoring program for finfish and shellfish aquaculture are in need of the hour to prevent and control the large-scale disease outbreaks and subsequent economic losses.

Keywords : disease, EHP, inland saline water, shrimp culture
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