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A PATHOLOGICAL STUDY OF WHITE SPOT SYNDROME IN PRAWNS *(PENEAEUS MONODON)*

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The study was carried out in order to determine the gross and microscopic changes in White Spot Syndrome in prawns as early diagnosis of the disease is very necessary to control and prevent its spread.

Samples of prawns weighing 8 to 24g were collected from randomly selected ponds in the Chilaw and Puttalam districts from April 1997 to April 1998 during sporadic outbreaks of the disease. Details pertaining to the out breaks, management systems, water parameters etc., were recorded.

After gross examination of the prawns the gills, stomach, hepatopancreas and gut were fixed in Davidson's fixative for 24-72 hrs. They were then transferred to ethanol. The tissues were carefully trimmed, cleared and paraffin embedded. Paraffin sections were cut at 6μ and were stained with hematoxylin and eosin.

During disease outbreaks there was a rapid reduction in feed intake with onset of high mortality within a few days. Most of the shrimps were seen surfacing frequently while some were seen at the pond edge.

The majority of shrimps had white spots of 0.5 to 2mm in diameter on the cuticle. The histological sections of stomach, gills and mid gut revealed intranuclear eosinophilic to pale basophilic inclusion bodies in the epithelium. Some cells exhibited nuclei with basophilic marginated chromatin. Few inclusions were present in sections of mid gut. The inclusions were totally absent in the sections of hepatopancreas examined. The gills revealed certain structural changes in the lamellae. The lamellae were swollen and the cuticular layer was found separated from the underline tissue. The gross signs and histological changes were similar to those reported in literature.