

B-47 Investigation on white spot baculovirus (SEMBY) outbreak in shrimp culture systems of Sri Lanka

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A disease outbreak causing mass mortalities among cultured shrimps was recorded in shrimp farms bordering the Dutch canal and farms in Mee-oya estuarine area. The clinical signs and clinical histories were similar to Systemic Ectodermal Mesodermal Baculovirus (SEMBV). This virus has not been recorded earlier in Sri Lanka.

An investigation was initiated to study the spread of the disease, histopathology of the affected shrimps and to monitor bacterial population and physico-chemical parameters in the Dutch canal: the main source of water for the affected farms.

The diseased shrimps had white spots and patches on the inner side of the shell in cephalothorax as well as in the abdomen, and red discoloration, black gills soft shell condition swelling of cephalothorax. Histopathological studies carried out in Aquatic Animal Health Research Institute confirmed the main pathogen as SEMBV.

Total of 80 farms were found affected and the total pond area affected was 400 ha by June 1996. Cumulative mortalities reached 100% within 4-8 days and the majority were in the 4-10 g size group.

The water quality parameters in Dutch canal were within sub-optimal ranges with respect to ammonia nitrite and sulphides for shrimps. *Vibrio* dominated the total bacterial populations in the water source of the affected area.