

Studies on the Epizootic Ulcerative Syndrome (EUS) affecting freshwater fish in Bellanwila-Attidiya wetlands, Sri Lanka

P.K. Jayasinghe and A. Pathiratne

Department of Zoology, University of Kelaniya, Kelaniya, Sri Lanka

Quantitative analysis of water quality was conducted during the period of November 1996 to September 1997 in selected sampling sites in Bellanwila- Attidiya wetlands, an area where the epizootic ulcerative syndrome (EUS) had occurred, to study the environmental factors potentially associated with the EUS. Rainfall was monitored and quantitative sampling of fish populations was carried out over the study period.

An EUS out-break occurred after heavy rainfall between January 1997 and March 1997. Reduction in dissolved oxygen (DO) concentrations in water appear to coincide with the initiation of the out-break. High levels of biochemical oxygen demand (BOD) and low levels of DO were observed during the spell in which EUS appeared. Prevalence of EUS was highest *Tricogaster pectoralis*. Two thirds (75%) of the lesions observed were found to occur in the caudal and ventral regions of the affected fish. Histopathological studies indicated the formation of granulomatous lesions with non-septate fungal hyphae in the muscle tissues and sarcolysis of muscle fibres. Results of the present study indicate that interaction between rainfall, poor water quality and the presence of pathogens could provide stressful conditions for fish, thereby inducing EUS lesions in them.