



Occurrence of Gill Monogenean Parasites in Redbelly tilapia, *Tilapia zillii* (Teleostei: Cichlidae) from Lobo River, Côte d'Ivoire

Georges KASSI BLAHOUA*, Euphrasie YEDEHI ADOU, N'Doua RAPHAËL ETILE, Silvain STANISLAS YAO and Valentin N'DOUBA

Department of Biological Sciences, Laboratory of Hydrobiology, Faculty of Science and Technology, University of Félix Houphouët Boigny, Abidjan, 22 P.O. Box 582 Abidjan 22, Côte d'Ivoire.

Corresponding Author: E-mail: kassiblahoua@yahoo.fr; Tel: +22509856307/ +22504602531

Key words: *Tilapia zillii*, Gill monogenean, infection level, River Lobo, Côte d'Ivoire.

1 ABSTRACT

A study was made on gill monogenean infestation of 231 *Tilapia zillii* (Redbelly tilapia) collected from Lobo River during August 2004 to July 2005. After recording biometric characteristics, common necropsy and parasitology methods were used. Three species belonging to genus *Cichlidogyrus* (*C. digitatus*, *C. aegypticus* and *C. vexus*) were recorded. An aggregated dispersion for all monogenean species was observed. There was a positive and significant correlation between the intensity of infection and the relative condition factor. The infestation exhibited seasonal fluctuation; the maximum intensities of parasite infection were recorded in the rainy seasons and the minimum in the dry seasons. The higher value of Shannon based evenness suggests that community structures show consistent distribution of all species during the seasons of the year. As to host size-related incidence, the differences in the number of the three species among the four-host size classes were significant ($p < 0.05$). No significant differences were found in the infrapopulations of the three parasite species between host sexes and in the distribution of these parasites among the left and right-hand gill sets ($p > 0.05$). In contrast, parasite species mostly concentrated in the middle arches ($p < 0.05$). This information will allow further researches on protocols for monitoring parasitic infection in intensive fish farming.
