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## Ecological insights into Nile tilapia *Oreochromis niloticus* (Linnaeus, 1758) gill monogenean parasites interactions in the Taabo man-made lake (Côte d'Ivoire)

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### ABSTRACT

**Objectif:** This study was conducted in the Taabo man-made lake to assess the specific composition, spatio-temporal dynamics and impact of gill Monogenean parasites on the physical condition of *Oreochromis niloticus*

**Methodology and results :** Fish sampling was carried out between May 2023 and April 2024 at Ahondo and Couurandjourou stations. A total of eight monogenean species from the genera *Cichlidogyrus* and *Scutogyrus* were identified among the 1180 specimens examined. Fishes captured at the Ahondo station were significantly most infested, with prevalence rates reaching 71.19% for *Cichlidogyrus thurstonae*, 68.64% for *C. sclerosus*, and 63.56% for *C. halli*. At this station, mean parasite intensities were also high, exceeding 50 parasites per individual for certain species. In terms of abundance, peak values at the Ahondo station reached 53.39 for *C. sclerosus* and 52.0 for *C. thurstonae*. These infestations were notably more severe during the rainy seasons. The mean condition factor of infected fish was significantly the lowest at Ahondo station ( $0.36 \pm 0.01$ ) compared to uninfected individuals ( $0.75 \pm 0.10$ ).

**Conclusion and application of results:** These findings highlighted a higher parasitic pressure at Ahondo station, particularly during the rainy season, and a marked detrimental effect on the health status of infected *O. niloticus*.

**Key words :** *Oreochromis niloticus*, gill Monogeneans, Infestation, Condition factor, Taabo lake, Côte d'Ivoire.