ijar ISSN NO. 2320-5407

**International Journal of Advanced Research** 

Publisher's Name: Jana Publication and Research LLP

Rating

Clarity Significance

Originality

Techn. Quality

Excel.

 $\checkmark$ 

Good

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### **REVIEWER'S REPORT**

Manuscript No.: IJAR- 51141

Title: Seasonal Variation of Infestation by Gill Monogenean Parasites and Condition Factor of Coptodon guineensis in the Sector IV of Ebrié Lagoon (Côte d'Ivoire)

### **Recommendation:**

Reviewer Name: Dr. S. K. Nath

Date: 18/04/2025

## **Reviewer's Comment for Publication:**

The research successfully demonstrates that seasonal variations significantly impact the infestation rates of gill monogenean parasites in Coptodon guineensis. It finds that rainy seasons are associated with higher prevalence and intensity of infestations, which correlates with lower condition factors in infected fish. The ecological insights provided by the study can assist fishery and aquaculture management teams in Côte d'Ivoire in implementing practices that mitigate parasitic infestations during peak times. Further studies are recommended to enhance understanding of the broader environmental impacts and to establish more comprehensive management strategies for ensuring the health of fish populations in the region.

# **Reviewer's Comment / Report**

#### Strengths:

- 1. **Relevance of the Study**: The research addresses an important ecological and economic issue by examining parasitic infestations in Coptodon guineensis, a fish species of significant value in local aquaculture and fisheries.
- 2. **Comprehensive Methodology**: The study employs systematic collection and examination methods, including the use of standard parasitological techniques and statistical analyses, providing robust data on the prevalence and intensity of parasite infestations.
- 3. Seasonal Analysis: The focus on seasonal variations allows for a deeper understanding of how environmental factors influence parasitic loads, which is critical for managing fish health and aquaculture.
- 4. **Diversity Assessment**: The inclusion of multiple measures of diversity (Shannon-Weaver and Simpson indices) provides a thorough examination of the ecological dynamics among the parasitic species.
- 5. **Contribution to Local Knowledge**: It adds valuable data to the limited existing research on fish parasites in Côte d'Ivoire, potentially guiding future studies and conservation efforts in similar ecosystems.

## Weaknesses:

- 1. Limited Geographic Scope: The study is confined to Sector IV of the Ebrié Lagoon, which may limit the generalizability of the findings to other regions of the lagoon or to similar ecosystems elsewhere.
- 2. **Sample Size**: While the study sampled a considerable number of fish, a broader sampling across different locations and times could strengthen the findings and support more robust statistical analyses.
- 3. Environmental Factors Analysis: Although the study mentions environmental factors affecting parasitic infestations, a more detailed analysis of water quality and other ecological metrics during the sampling period could provide a more comprehensive understanding of the interactions at play.
- 4. Longitudinal Data: The study spans over a year, but longer-term studies may yield insights into long-term trends in parasitism and host health.



Date: 17/04/2025

Poor

Fair