Review Form 3

Journal Name:	**Asian Journal of Fisheries and Aquatic Research**
Manuscript Number:	**Ms_AJFAR_122476**
Title of the Manuscript:	**Population dynamics of the fish species Brama Brama Bonnaterre (1788) in the central eastern of Atlantic Ocean, Côte d'Ivoire**
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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Review Form 3

PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	The study of *Brama brama* in Ivorian waters reveals significant overexploitation, with the species being harvested faster than it can replenish. This poses a risk to its sustainability and has serious socio-economic and environmental implications. The findings highlight the need for evidence-based fisheries management policies, such as catch limits and size restrictions, to ensure the long-term viability of the species. The research also underscores the importance of protecting marine ecosystems and supporting the livelihoods of coastal communities reliant on this fishery. However, this might lack in its limited geographic scope, small sample size, and absence of long-term data. It also relies heavily on specific models, lacks a deep socio-economic analysis, and fails to provide concrete management recommendations. Additionally, the study may not adequately consider the broader ecosystem context, making it feel incomplete and narrow in scope.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title is suitable, but I have made some adjustments for accuracy and clarity. The corrected title should be: "Population Dynamics of the Fish Species *Brama brama* (Bonnaterre, 1788) in the Central-Eastern Atlantic Ocean, Côte d'Ivoire."	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract is largely thorough, but a few modifications could improve its clarity and completeness. To begin with, briefly highlighting the significance of the findings, especially in terms of their potential impact on fisheries management or conservation efforts in the area, would be beneficial. While the technical details are valuable, the abstract could be more concise by emphasizing the key findings, particularly the growth parameters most relevant to the conclusion of overexploitation. Additionally, it would be advantageous to hint at possible management recommendations or discuss the broader implications of the findings for the ecosystem and local communities. Lastly, the abstract could be better structured by starting with the study's objective, followed by the methods and key findings, and concluding with a brief mention of the implications. Please revise.	
Are subsections and structure of the manuscript appropriate?	In my view, the introduction provides a broad context but could be enhanced by addressing several key aspects. Firstly, it should clarify the significance of Brama brama within the broader context of fisheries and ecosystem management. Detailing the ecological role of this species or its importance to local fisheries would strengthen the rationale for the study. Additionally, while the introduction acknowledges the need to monitor bycatch species, it lacks a clear statement on the specific research gap this study aims to fill. Including information about what is currently known about Brama brama and what gaps exist in the literature would provide a stronger justification for the research. The introduction should also explicitly state the main objectives of the study and outline its scope, helping readers understand the specific aspects of Brama brama's population dynamics being investigated and their critical importance. Furthermore, providing more information about the central-eastern Atlantic region bordering Côte d'Ivoire and its relevance to the study would offer a clearer picture of why this area is being examined. This could include details on local fishing practices, the economic significance of the species, or regional conservation issues. Lastly, briefly mentioning the potential implications of the study's findings for fisheries management, conservation, or policy would underscore the practical significance of understanding Brama brama's population dynamics. Including these elements would provide a more comprehensive and contextually rich introduction for the manuscript. In the keywords section, avoid using terms that are duplicated from the title. The methods section provides a solid foundation but could benefit from additional details to improve its comprehensiveness. Firstly, a more thorough explanation of the sampling process is needed, including the rationale behind the selection of the specific time frame (November 2021 to April 2023) and the reasons for choosing drift gillnets. It would be helpful to include information on the sampling frequency within each week and any potential variability in sampling conditions that might affect the data. In the section on total length measurement, it should specify the calibration and accuracy checks performed on the measuring tape and electronic balance to ensure precision. Additionally, the methods for handling and measuring fish to prevent measurement errors should be detailed. Regarding growth and exploitation parameters, the introduction of the [5] model should include a brief description of this model's relevance and why it was chosen. The calculation formulas provided need clarification on how they were derived	

	and validated. Furthermore, any assumptions made in the calculations or potential limitations of the model should be addressed. The recruitment and first-capture size section would benefit from a more detailed explanation of the ogive selection method and how the parameters for Lc, L50, and Lopt were determined. It would also be useful to describe the recruitment patterns method used in FiSAT II and any criteria for selecting size frequency data. They can also put the Spawning potential ratio (SPR), the Gonadosomatic index (GSI), and sex ratio if they have the data. A key issue in fisheries science is the accurate estimation of the size at maturity (Lm). Different estimation techniques yield varying results, and many methods, including those used in this study, indicate the size at which fish first mature rather than the size at which 50% reach full reproductive capacity, which is typically used for stock assessments. The gonadosomatic index (GSI) may offer a more accurate measure of adult maturity. Research by Flores et al. (2019) suggests that GSI could improve maturity classification and the estimation of maturity ogives. This paper may be missing an important opportunity to compare GSI with other techniques. They can add GSI data as used solely to analyze seasonal variations, but examining how GSI correlates with fish length could enhance the paper's significance and broaden its international relevance and application. More so, the methods section should address any ethical considerations related to the handling of fish, such as how humane practices were ensured during sampling and dissection. Providing this additional detail would enhance the robustness and reproducibility of the study. In the Results and Discussion section, it offers a detailed analysis of Brama brama in Côte d'Ivoire but could be improved in several areas. While it compares the size and growth parameters of Brama brama with other regions, it would be beneficial to examine how these findings fit with historical data specific to Côte d'Ivoire to determine if they indicate a trend or deviation. Additionally, the discussion touches on environmental factors like food and temperature but lacks a detailed analysis of their specific impacts on size distribution and growth in Côte d'Ivoire. A more thorough investigation of these factors would deepen the understanding of the observed patterns. Moreover, although the study highlights signs of overexploitation, it would be enhanced by a more in-depth look at the ecological and socio-economic effects of this overexploitation. Exploring the consequences for the local fishery community and the marine ecosystem would provide a fuller picture. The paper mentions general management actions but could offer more specific recommendations, such as optimal closure periods, size limits, or gear modifications, and discuss practical implementation and enforcement strategies. The discussion would also benefit from addressing the study's uncertainties and limitations, such as how the use of drift gillnets with large mesh sizes might affect size and growth data accuracy. Recognizing these limitations would provide a more balanced view of the results. Finally, the section could suggest future research directions, like exploring the effects of different fishing practices, conducting long-term population studies, or investigating specific biological and ecological factors affecting growth and mortality rates. These additions would offer a more comprehensive understanding of Brama brama population dynamics and aid in developing more effective management strategies. The conclusion of the study on Brama brama in Côte d'Ivoire provides a useful summary of the main findings but could enhanced. First, situating these results within a wider ecological and management framework would emphasize their importance, particularly by comparing current data with historical trends in the region. Additionally, while the recommendation to close fishing grounds during the upwelling season is valuable, the conclusion could be strengthened by offering detailed, actionable suggestions for fishery management. This might involve specifying size limits, gear modifications, or other seasonal restrictions and assessing their potential impacts on both the fishery and the local economy. Moreover, the conclusion should identify areas for further research, such as long-term monitoring of the population or investigations into environmental effects. It should also consider the socio-economic effects on local communities and fishers and propose support measures. Addressing the study's limitations, such as sample representativeness or data accuracy, would provide a more balanced perspective. Finally, discussing the broader ecological consequences of overexploitation, including impacts on marine ecosystems and biodiversity, would give a more comprehensive understanding of the study's relevance. You can also add recommendation for future study or have a policy recommendation that can be formulated with this study	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4	I thought this was a good biological study of an important species that we need to know more about, and that the author has (generally) made good use of the techniques available. This manuscript is scientifically robust and technically sound due to several key factors. Firstly, it incorporates a substantial sample size of 505 Brama brama individuals, collected systematically over a period from November 2021 to April 2023, which ensures a	

sentences may be required for this part.	comprehensive representation of seasonal and temporal variations. The use of FiSAT II software for estimating growth and mortality parameters is grounded in well-established methodologies within fisheries biology, reinforcing the reliability of the results. The detailed analysis of growth parameters, including Von Bertalanffy growth estimates, and the comparison with data from other regions provide valuable context and validate the local findings within a broader scientific framework. The manuscript accurately distinguishes between natural and fishing mortality, and calculates the exploitation rate, revealing significant overexploitation of the species. The analysis of recruitment patterns and size at first capture relative to size at first maturity highlights the biological overexploitation of the species. Furthermore, the manuscript offers practical management recommendations, such as seasonal fishing closures, based on the observed data. These factors collectively underscore the manuscript's adherence to rigorous scientific methods and its contribution to practical applications in fisheries management.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. **-**	Consider incorporating additional research studies to better explain your results in the discussion section. Providing more relevant literature can support and supplement your findings effectively.	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	Based on the manuscript provided and the context of the discussion, the English in the manuscript is generally clear and coherent.	
Optional/General comments	I believe that this paper provides a valuable contribution to understanding the dynamics of *Brama brama* in the marine waters of Côte d'Ivoire, offering insights into its length-frequency distribution, growth parameters, mortality rates, and recruitment patterns. The study addresses a significant gap in the literature by focusing on this species in a specific geographic region, shedding light on its current status and highlighting issues of overexploitation. However, there are areas for improvement. The introduction could better establish the species' significance in fisheries and ecosystem management, clarify the research gap being addressed, and detail the study's objectives and scope. The methods section would benefit from more detailed explanations of sampling procedures, measurement accuracy, and ethical considerations. Additionally, the Results and Discussion section could be enhanced by connecting findings to historical data, providing a deeper analysis of environmental factors, and offering more specific management recommendations. The conclusion should place results within a broader context, provide actionable management suggestions, and consider socio-economic impacts. Overall, while the paper makes a significant contribution, addressing these areas could strengthen its impact and provide a more comprehensive understanding of Brama brama's population dynamics and the implications for fisheries management and conservation.	

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**John Christian D. Entia**
Department, University & Country	**Philippines**