

Review Form 3

Journal Name:	Asian Journal of Fisheries and Aquatic Research
Manuscript Number:	Ms_AJFAR_127616
Title of the Manuscript:	Effectiveness of Adding Spirulina Meal in Improving the Color of Platy Fish (<i>Xiphophorus maculatus</i>)
Type of the Article	

PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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<p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p><u>Optional/General</u> comments</p>	<p>Dear Editor,</p> <p>Thank you for providing me with the opportunity to review the article entitled "Effectiveness of Adding Spirulina Meal in Improving the Colour of Platy Fish (Xiphophorus maculatus)." Please find my review below:</p> <p>While the study demonstrates the positive effects of adding spirulina meal to improve the coloration of platy fish, several aspects of the methodology and interpretation of results could be further addressed to strengthen the conclusions and make the study more robust. Below are key points and areas for improvement:</p> <p>1- Growth Rate Findings: Although the study notes a decrease in the specific growth rate of platy fish with higher doses of spirulina (particularly the P4 treatment with 5% spirulina), the study does not delve deeply into the underlying reasons. The low growth rate in the spirulina-supplemented groups (P2, P3, P4) could have been influenced by various factors such as insufficient protein, crude fiber, or fat content in the feed. A more detailed analysis of the nutritional content of the spirulina-enriched feed and its effect on overall growth would have helped provide a clearer explanation.</p> <p>2- Lightness (L) Value:* While the study notes that the Lightness value (brightness) increases with the addition of spirulina, it also observes a decline in Lightness at the 5% dose (P4). The explanation provided—that excess carotenoids can reduce the intensity and quality of fish color—lacks clear mechanistic detail. There could be an effect of carotenoid saturation or a nutrient imbalance when spirulina is provided in excess.</p> <p>3- Coloration Duration: The study only measured the effects of spirulina supplementation for a 30-day period, with some observations made at 45 days. However, fish coloration could change over time beyond this window, especially as the fish mature. Additionally, no long-term observation on whether the color improvements persist or diminish after the spirulina supplementation ends is provided.</p> <p>4-Environmental Stress: The study mentions that fish deaths were likely due to stress from handling, such as during measurements and water changes. However, there is no clear control over the amount of stress the fish were subjected to, nor how it may have influenced the results. Stress is a known factor that can significantly impact fish coloration and overall health.</p> <p>5- The study suggests that the fish prioritize coloration over growth, but it does not provide a clear explanation or hypothesis for why this occurs. The results could imply a trade-off between growth and coloration, which needs more exploration. Investigate whether the metabolic pathways for carotenoid utilization are competing with those for growth. This could help clarify whether there is a physiological trade-off and whether it's possible to optimize both growth and color without negative side effects.</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Mehtap Bayır
Department, University & Country	Ataturk University, Turkey