

Review Form 1.7

Journal Name:	Asian Journal of Fisheries and Aquatic Research
Manuscript Number:	Ms_AJFAR_110275
Title of the Manuscript:	EFFICACY OF TANNIN EXTRACT FROM CAPE GOOSEBERRY ROOT <i>Physalis peruviana</i> AS EGG DE-ADHESION AGENT DURING ARTIFICIAL PROPAGATION OF AFRICAN CATFISH <i>Clarias gariepinus</i>
Type of the Article	

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PART 1: Review Comments

	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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<ol style="list-style-type: none"> The authors investigate a crucial aspect of African catfish aquaculture, focusing on the persistent challenge of egg adhesiveness and its impact on fertilization and hatching rates. The authors tackle this issue by exploring the efficacy of tannin extract from Cape gooseberry as a de-adhesion agent. The research examines various concentrations and immersion periods to identify the optimal conditions for effectively reducing egg adhesiveness without compromising hatching rates. <p>The study not only provides valuable insights into the specific problem of egg adhesiveness in African catfish but also addresses a broader challenge within aquaculture.</p> <ol style="list-style-type: none"> Title should be re-phrased as "Efficacy of tannin extract from cape gooseberry root <i>Physalis peruviana</i> L. as an egg de-adhesion agent in the artificial propagation of African catfish <i>Clarias gariepinus</i> Burchell" The abstract of the article is comprehensive The subsections and structure of the manuscript are appropriate The manuscript's methodology is scientifically correct, and the manuscript's findings were well presented The references are sufficient and recent. However, the authors should carefully check the references and ensure it adheres to the journals guidelines for references. 	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>Some grammatical errors and typos. See my comments for all typos that need to be addressed.</p>	
<p>Optional/General comments</p>	<p>I suggest the authors insert line numbers in the original submission to make it possible to understand the exact point of reference.</p> <p>Is there a specific reason for capitalizing the T in tannin throughout the body of the text even when it appears in the middle of a sentence? Unless there is a particular reason, this should be written in lowercase.</p> <p>The first mention of any of the Latin names should carry the taxonomic authority (author's name). Subsequent mention can do without this.</p> <p>Title: Re-write the title as "Efficacy of tannin extract from cape gooseberry root <i>Physalis peruviana</i> L. as an egg de-adhesion agent in the artificial propagation of African catfish <i>Clarias gariepinus</i> Burchell.</p> <p>Abstract:</p> <p>Only minor punctuation errors here.</p> <p>Page 1, Line 8 – insert a comma after respectively</p> <p>Page 1, Line 18 – insert a comma after Therefore</p>	

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	<p>Introduction:</p> <p>Page 1, Line 27 & 28 – change ‘tons’ to ‘tonnes’. Since authors are using the metric unit not the imperial unit.</p> <p>Page 1, Line 29 – re-write the sentence “the culture of clariid catfish...” for clarity</p> <p>Page 1, line 34 – ‘part’ should read ‘parts’</p> <p>Page 1, line 36 – ‘evidences’ should read ‘evidence’</p> <p>Page 1, line 39 – change ‘Catfish larva’ to ‘catfish larvae’</p> <p>Page 1, line 40 – “the clumping together ...”, remove “together”</p> <p>Page 2, line 41 – let “...egg when they are released into ...” read as “...eggs, when released into...”</p> <p>Page 2, line 41 – change ‘egg’ to ‘eggs’</p> <p>Page 2, line 42 – insert ‘The’ before ‘adhesiveness’ and insert a comma after ‘mortality’</p> <p>Page 2, line 47 – rewrite the sentence “Adhesiveness covers the microphiles and hinders the sperms ...” as “Adhesiveness covers the microphiles and hinders the sperms from fertilizing the eggs, thus reducing the chances of sperms getting in contact with the eggs (...).”</p> <p>Page 2, line 50 – replace ‘it’ with ‘they’ and insert a comma after ‘together’</p> <p>Page 2, line 52 – remove ‘certain’</p> <p>Page 2, line 53 – insert a comma before ‘etc.’</p> <p>Page 2, line 53 – ‘species specific’ should read ‘species-specific’</p> <p>Page 2, line 55 – insert a coma after ‘and’ – so it reads as ‘hatching and, survival rates’</p> <p>Page 2, line 57 – rewrite the sentence ‘...that efficiently remove adhesiveness of C. gariepinus eggs...’ as “Therefore, this study ... that efficiently removes the adhesiveness of C. gariepinus eggs, increasing the hatching and survival of the larva produced.”</p> <p>Materials and Methods</p> <p>The materials and methods section is correct, and the methods were fully described.</p> <p>Result and Discussion</p> <p>Page 6, line 198 – ‘Table below’ should be corrected to ‘Table 1’</p> <p>Page 6, line 200 – Rephrase the sentence “In control, fertility f 92.80% was recorded”</p> <p>Page 6, line 204 – instead of ‘...increases for eggs immersed in tannin extract Cape gooseberry root.’, insert ‘of’ so it reads ‘...increases for eggs immersed in tannin extract of cape gooseberry root’.</p> <p>Page 7, line 207 – insert a space after 1minute – 1 minute.</p> <p>Page 7, line 233 – same applies as above – 1 minute</p> <p>Page 7, line 237 – same applies as above – 1 minute</p>	
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	<p>Page 8, line 261-262 - same applies as above - 1 minute and 30 seconds</p> <p>Page 8, line 285 – ‘Table below’ should be corrected to ‘Table 1’</p> <p>Page 8, line 289 – insert space before ‘seconds’ – to read as ‘30 seconds’</p> <p>Page 9, line 295 – correct the sentence “It provided data at real production of <i>C. gariepinus</i> larvae form total number of eggs which were initially used for incubation (...).</p> <p>Page 9, line 307 – replace ‘table below’ with ‘table 1’</p> <p>Page 9, line 306-313 – rewrite that sentence as this “The percentage of survived larvae showed that survival decreased with an increase in concentration and immersion period, as shown in the table below. 99.80% was the highest, and this was observed in 0.5% with one (1) minute immersion period and lowest (51.60%) in 2% with two (2) minutes immersion period of tannin extract from Cape gooseberry root. Also, 67.41% was the highest, and this was observed in 0.5% with 30 seconds immersion period and lowest (54.89%) in 2% with two (2) minute immersion period of tannic acid solution, while survival of hatched larvae from the control group was 22.10% which was the least when compared with survived larvae exposed to tannin extract Cape gooseberry root and tannic acid solution.”</p> <p>Conclusion and Recommendation</p> <p>Re-write as “This present study revealed that 1% of tannin extract from Cape gooseberry root with a 1 minute immersion period gave the highest fertilization, lowest sticky rate, highest hatchability, and highest survival of <i>C. gariepinus</i>. However, tannic acid solution at 0.5% and 1% concentration with a 1-minute immersion period was also optimum for detachment of <i>C. gariepinus</i> eggs without affecting the fertilization, incubation period, hatchability, and percentage survival rate. The use of tannin extract from Cape gooseberry root at the lowest concentration and immersion period was not significantly different from the use of tannic acid solution. Therefore, using 1% tannin extract from Cape gooseberry root with a 1 minute immersion period is recommended to fish hatchery operators/ fish breeders in Nigeria because of its effectiveness, quick, and simple technology.</p> <p>Although tannic acid, which served as the reference de-adhesion agent, was not significantly different from the result obtained from tannin extract from Cape gooseberry root, it is more expensive. Hence, tannin extract from Cape gooseberry root is recommended for its efficacy, efficiency, cost-effectiveness, availability, handling, and processing. However, further study can be conducted to test the efficacy of tannin extract from other plant materials and compare it with tannin extract from Cape gooseberry root. Also, this test should be carried out on more fish species apart from <i>Clarias gariepinus</i>. This will help us develop a natural insemination protocol for fish egg de-adhesion, which will increase fish productivity”.</p>	
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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:

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