Dated: 25.11.11

To
The Editor
ORiON

Subject: 2nd Resubmission of the research article " (no ORiON_#102)" - after necessary corrections.

Dear Sir,

With due respect, I would like to thank you for giving me the opportunity to resubmit our article after necessary corrections. We have revised our manuscript according to the suggestions made by the referees, and uploaded the revised version of the manuscript to the online submission system.

I would also like to thank the reviewers for their time and effort for the improvement of the article. Here we describe in what way and where each of the referees' comments and/or suggestions have been addressed:

**Reviewer A:**

- Reading this article for the second round I have the same concerns than the first round:
  - If I accept as per tables in the article that 1 period is 1 day I would like to see a comparison of results for a similar time period e.g. a month or a year for a 10 period horizon solution vs a 30 period horizon solution. Compare the total profit for one season/year etc.

  **Answer:** According to the honorable referee’s suggestion, we have added a new section on these comparison (Section 4.2.1).

- The constraint $z(i,l,t) < 150\ 000, 0\leq t\leq T$, was added but I can not see if it is implemented as the figures in Table 3a does not show accordingly and did not change.

  **Answer:** This constraint has impact on the figure shown in Table 3. The model with safety stock optimized the initial and inventory which also implements the mentioned constraint.

- In Section 4.1 a profit of $914 does not mean anything if we cannot see the driving factors in the model namely $c_1$, $c_2$ and $c_3$. A little change in these might change the outcome totally or $c_1$ might be negligible compared to $c_2$ and $c_3$ and that is why the result shows that the plant must operate close to maximum capacity to gain maximum profit. Also does $914 indicate a much higher profit that the current management process create. That is, does this solution propose a more optimal management schedule.
**Answer:** I agree with the referee that a little change in the parameter $c_1$, $c_2$ and $c_3$ change the outcome totally or $c_1$ might be negligible compared to $c_2$ and $c_3$. It is difficult to deal with all of these parameters without using a mathematical model. Considering all the restrictions and parameters, our model optimize the profit. As a result, comparing different 10-period model’s results with naively set initial inventory in Section 4.1 with a 10 period model with the optimal safety stock which yields a total profit of $1,065,775, we found that these profits are about 3% to 17% lower than that obtained from 10-period safety stock model.

-In section 5.2 a fixed trawler schedule was used. We do not know what schedule was chosen and based on what.
-Table 9 calculated the percentage change. I assume you want to calculate the percentage change on the optimal solution that means on the variable trawler schedule. For that the calculation should be $100 \times \text{(Variable trawler schedule profit)} / \text{(Fixed trawler schedule profit)}$.

**Answer:** We corrected the statement as: The percentage change in profit is defined as $100 \times \text{(Variable trawler schedule profit)} / \text{(Fixed trawler schedule profit)}$.

-Section 2.1 Show reference to all facts that you refer to. Shown

-The sentence "fishery use a shorter planning horizon that any reasonable estimate of the firms real future horizon" in 3 successive paragraphs, namely 2.5, 2.6 and 2.7. Corrected

-p5, Table 1: Should the number of product types be 4 for IFPMS? Yes
- p5, Table 1: Does the 30 period planning horizon means 30 days? Explain. Explained
-p8 Sections 4: Correct the heading. Corrected
-p8 Say Figure 3 rather than The Figure 3. Corrected
-p8 Figure 3, please explain the x-axis. Explained
-p11: Use $E_{\text{ave}}$ is average rather than $E_{\text{ave}} = \text{average}$. Corrected
-p21 Last paragraph: You used section 5 to 5 instead of section 5 to 6. Corrected

I therefore request you to take necessary steps in this regards and oblige thereby.