

# Dear Yudha Trinoegraha Adiputra:

We have reached a decision regarding your submission to MJS, "Male spiny lobster The Effects of Thyroxine Hormone on Gonadal Maturation and Growth of Male Spiny Lobster (Panulirus homarus)".

After much waiting, we finally received useful evaluation from two reviewers that enable us to make a decision on your paper. I attach their comments below. We enclose at the bottom of this letter the major points raised by the reviewers for your information; and suggest you to revise the paper accordingly.

If you agree to carry out the necessary revision, please do so and return the revised manuscript within 21 days.

When uploading your revised paper, please also submit a suitable rebuttal that carefully addresses the issues raised in the comments, point by point. **Highlight the differences of the revised manuscript between the two reviewers comment.** A new revised version should also be sent together.

List the comments suggested in the review and revisions came out in the "Manuscript Correction Summary" (find the template at the review discussion box). Rebuttals of the review comments can be made on this document.

We may revert to the original reviewers for assessment of the revised paper.

I wished you success and look forward to receive your revised paper.

Thank you for your interest in MJS.

Assoc. Prof. Dr Rozainah Mohamad Zakaria
Institute of Biological Sciences, Faculty of Science, University of Malaya
rozainah@um.edu.my

Reviewer C:		
Reviewer's result		

May eventually be published; requires major revisions as indicated below.

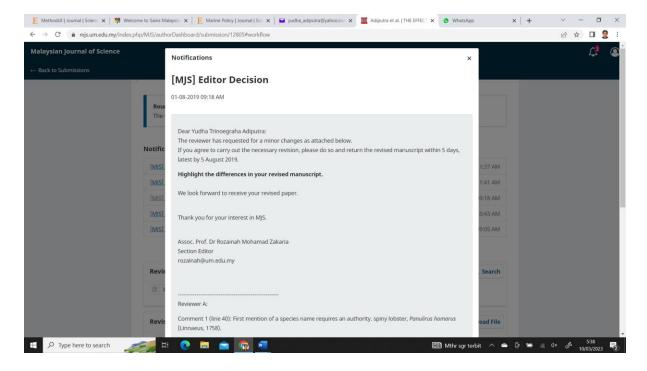
The author should be asked to make revisions in the:

- Abstract
- Figures
- Tables
- Captions
- Footnotes
- Conclusion

Please comment on deficiencies. Cite prior work that has been neglected. Suggest portions that might be omitted

This paper presents the effects of thyroxine hormone on gonadal maturation and growth of male spiny lobster (Panulirus homarus) in Indonesia. While interesting, some of the results may have published in the Invertebrate Reproduction & Development (2019) Identification of steroid hormones and fatty acids during gonadal maturation of spiny lobster Panulirus homarus, 63(2): 77-87 (attached file). In the Part 1: The effect of Thyroxine injection on gonadal maturation of male spiny lobsters, and Part 2: The effect of Thyroxine injection on growth of male spiny lobsters. Please describe it? I find this study can be an addition to our understanding the doses of thyroxine injection used were 0, 0.1, 0.2 and 0.5 ug/g body weight. BUT, the methods part must be rewrite with more detailed. Especially, the experimental design should be more detailed with descriptions. I recommend to accept it with major revisions as indicated below: Comments 1: Six fiber plastic tanks (Line 57-58) were used in this study. How many lobsters will be put in each tanks? How about the design? Q1: Gonadal maturation study used 30 male spiny lobsters with body weights ranges of 121-178 g (Line 78). Tank1 and Tank2 for thyroxine hormone injection 0 and 0.1 with 15 samples each? Q2: Growth study used male spiny lobsters with varied initial body weights (92-140 g). This study used 44 male spiny lobsters with four doses of weekly thyroxine

hormone injection i.e., 0, 0.1, 0.2, and 0.5 µg/g BW for 70 days of cultured period (Line 94-96). Tank3, Tank4, Tank5 and Tank6 for thyroxine hormone injection 0, 0.1, 0.2, and 0.5 Âug/g BW with 11 samples each? Comments 2: WHY the authors need to made a lots cleaned and changed all the water twice + twice a day? Q3: The experimental tanks were siphoned and cleaned two times daily at 0800 and 1600 (Line 61-62). It is okay to clean two times daily, but the 1600 is before the fed time 1700? I don't believe the lobsters will eating the feed very well after this interference, this will effects the FCR result. Q4: The experimental tanks were siphoned and cleaned two times daily at 0800 and 1600 (Line 61-62) and The experimental tanks were cleaned and the water was totally changed twice a day (in the morning and in the afternoon) (Line 64-65). Comments 3: How many doses of thyroxine injection used? How many lobsters were taken each period (sacrificed)? Q5: Gonadal maturation study, The thyroxine hormone injections were conducted once a week. Samples of male spiny lobsters were taken on days 3, 7, 10, 14, and 21 after thyroxine hormone injection. (Line 77-86). How many samples sacrificed in the different days? So, did the gonadal maturation study only keep 3 weeks with a doses of thyroxine hormone injections were 0 (control group) and 0.1 µg/g body weight? Then, the thyroxine hormone accumulated is total 0.3 µg/g body weight of for the 0.1 µg/g BW group? Q6: Growth study, 44 male spiny lobsters with four doses of weekly thyroxine hormone injection i.e., 0, 0.1, 0.2, and 0.5 µg/g BW for 70 days of cultured period (Line 93-104). Then, the thyroxine hormone accumulated is total 0, 0.4, 0.8, 2.0 µg/g body weight for each samples? Comment 4: How can you results have two-digit (0.XX, the initial weight, final weight and the initial carapace length and final carapace length) in Table 1 (Line 176)? The methods part have mentioned: The body weights of male spiny lobsters were measured with a digital balance with 0.1 g precision (Line 84-85). Carapace lengths were measured from rostrum to final part of cephalothorax by using a digital caliper in 0.1 mm accuracy (Line 101-102). Comment 5: Why the Gonadosomatic index (GSI) (%) of male spiny lobster (Panulirus homarus) injected with thyroxine hormone at doses of 0.1 µq/q BW is lower with the 0 µq/q BW (Line 145, Figure 1)? Please to make a description. Comments 6: The results in the Table 1 was from one sample or group? Please show the average and the standard deviation (STDEV). Q7: 44 male spiny lobsters will be using in the growth study, while the total number of molted have 62 samples (16+20+14+12) in Table (Line 176)? How long the male spiny lobster molted? the frequency? The molted of each samples seems have more than one time, but the initial and final carapace length were less than 2mm (Table 1)? Q8: The survival rate (SR) in the Table 1 (Line 176). How to analysis the SR percentage for the 0, 0.2, and 0.5 µg/g BW (all are same 90.90)? The total samples were 44, how many sample in each group at the initial and final? Q9: The feed conversion ratio (FCR) in the Table 1 (Line 176). FCR was calculated by dividing the total given feed during the culture divided by the weight gain during the culture period (Line 105-106). How do you calculated it? By each individual or group? A low FCR is a good indication of a high quality feed. Comment 7: Please reedit (Line 243-248): The GSI of male spiny lobster may different because thyroxine hormone has roles in sperm mass substance production or spermatogonia production (Radha & Subramoniam, 1985) that eventually will increase gonad weight. But, Minagawa (1999) found that GSI of mature male P. japonicus did not show any different change during season even though spermatogenesis was detected in testis and the sperms were available in vas deferens. Comment 8: The cited references: (Line 34) Ebbesson vs (Line 359) Ebberson?



Dear Yudha Trinoegraha Adiputra:

The reviewer has requested for a minor changes as attached below.

If you agree to carry out the necessary revision, please do so and return the revised manuscript within 5 days, latest by 5 August 2019.

# Highlight the differences in your revised manuscript.

We look forward to receive your revised paper.

Thank you for your interest in MJS.

Assoc. Prof. Dr Rozainah Mohamad Zakaria Section Editor rozainah@um.edu.my

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#### Reviewer A:

Comment 1 (line 40): First mention of a species name requires an authority. spiny lobster, *Panulirus homarus* (Linnaeus, 1758).

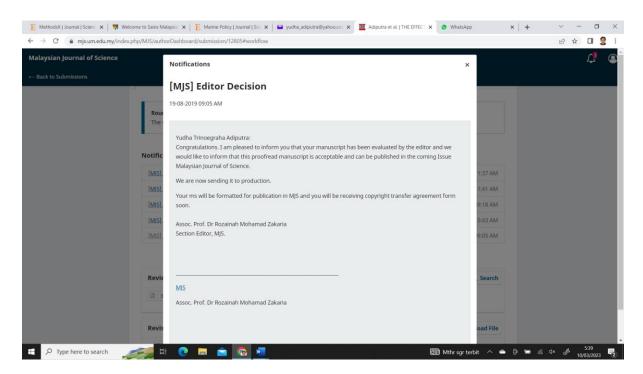
Comment 2 (line 75): Aquaculture (MCMC or Balai Besar Perikanan Budidaya Laut), please deleted the "or Balai Besar Perikanan Budidaya Laut"

Comment 3 (line 106): measured with a digital balance with 0.1 g changed to 0.01 g.

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### **MJS**

### Assoc. Prof. Dr Rozainah Mohamad Zakaria



#### Yudha Trinoegraha Adiputra:

Congratulations. I am pleased to inform you that your manuscript has been evaluated by the editor and we would like to inform that this proofread manuscript is acceptable and can be published in the coming Issue Malaysian Journal of Science.

We are now sending it to production.

Your ms will be formatted for publication in MJS and you will be receiving copyright transfer agreement form soon.

Assoc. Prof. Dr Rozainah Mohamad Zakaria Section Editor, MJS.

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# MJS

#### Assoc. Prof. Dr Rozainah Mohamad Zakaria

