DETERMINATION OF NUTRITIONAL VALUE OF *TACHYPLEUS GIGAS* (HORSESHOE CRAB)

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Introduction

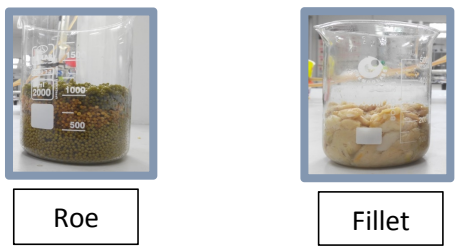
- Horseshoe crabs are marine arthropods of the family Limulidae, suborder Xiphosurida, and order Xiphosura[1].
- Horseshoe crabs superficially resemble crustaceans but belong to a separate subphylum, Chelicerata, and are closely related to arachnids.

Figure 1. Tachypleus gigas

- OBJECTIVE: To determine the proximate nutrition components of the species, in order to supplement the information on the nutritional quality of the species as human food.

Methodology

- The sample was divided by two parts which are roe and muscle.



- The sample was analyzed for its moisture, ash, protein, fat, carbohydrate and energy.
- Means were calculated using the LSMEANS statement of SAS (SAS Inst. Inc., Cary, NC, USA).

Result and Discussion

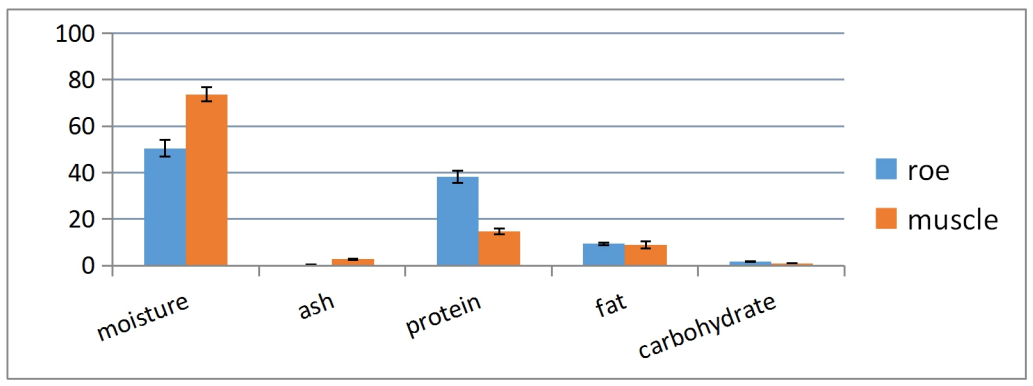


Figure 2. Proximate (%) comparison between roe and muscle of Tachypleus gigas .

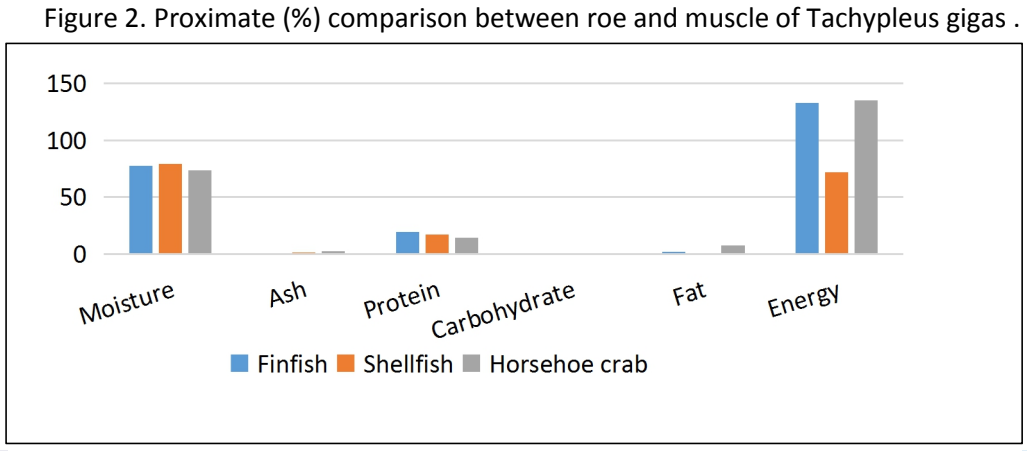


Figure 3. Comparison between Tachypleus gigas and other types of seafood.

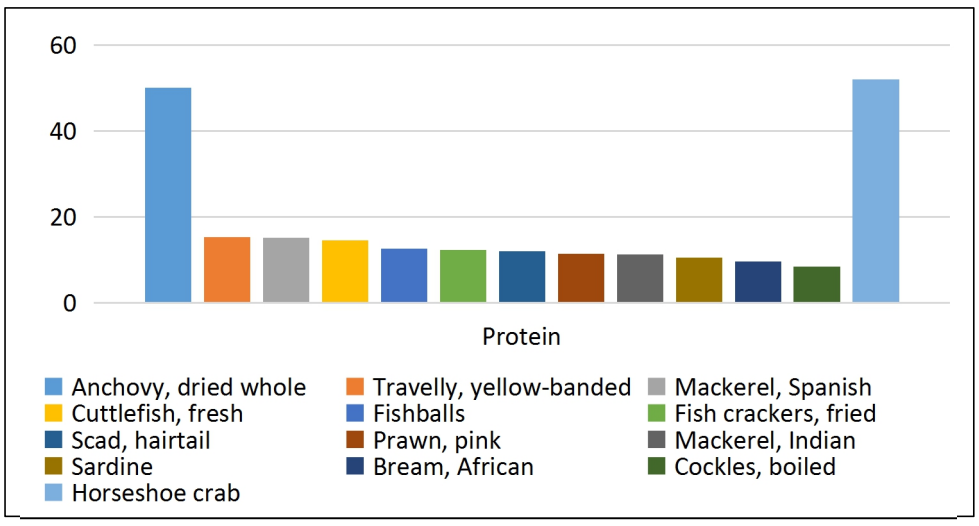


Figure 4. Comparison between protein of horseshoe crab and other types of seafood listed by RNI

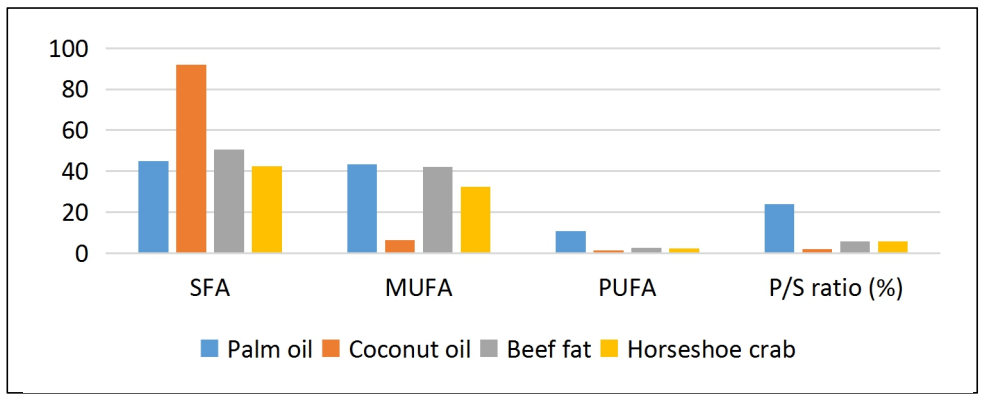


Figure 5. Comparison between Fatty acid of horseshoe crab and other types of product listed by RNI

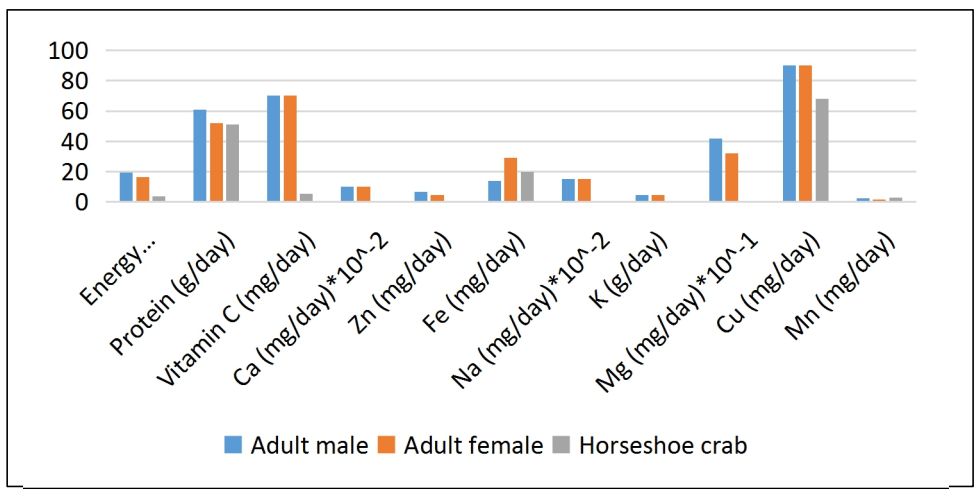


Figure 6. Comparison between nutrient analysis of horseshoe crab and Recommended Nutrition Intake for Malaysia (RNI)

Conclusion

- Roe has higher nutrition value compare to muscle due to higher overall proximate value.
- Horseshoe crab is a reliable source due to high in protein.
- Horseshoe crab is a good source of nutrition based on the Recommended Nutrition Intake for Malaysia.
- This study has shown a potential for the development of horseshoe crab by their proximate and mineral content.
- This information can be used as a guideline for the food manufacturer or industries that using this species as their product to help meet the recommended daily adult intakes of