A STUDY ON THE EFFECT OF DIFFERENT TYPES OF FOOD ON *Heteractis magnifica* IN CAPTIVITY

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2005

A STUDY ON THE EFFECT OF DIFFERENT TYPES OF FOOD ON *Heteractis magnifica* IN CAPTIVITY

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This project report is submitted in partial fulfillment of the requirement for the degree of Bachelor of Science in Agrotechnology (Aquaculture)

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2005

This project report should be cited as:

Siti Hasshura, H. 2005. A study on the effect of different types of food on *Heteractis magnifica* in captivity. Undergraduate thesis, Bachelor of Science in Agrotechnology (Aquaculture), Faculty of Agrotechnology and Food Science, Kolej Universiti Sains dan Teknologi Malaysia, Terengganu. 49p.

ACKNOWLEDGEMENTS

Alhamdulillah, praise to Allah for His blessing which enabled me to finish this project and I would like to take this opportunity to express my sincere gratitude and appreciation to those who had helped me to make this project running smoothly.

Firstly, my deepest gratitude goes to my supervisor, Dr. Abol Munafi Ambok Bolong for his guidance, comments, patience and his encouragement throughout my project. Truly, without his supervision, this project would not have been possible.

I am also grateful to Tg. Demong's Research Officer; Tn. Hj. Nik Razali Nik Lah, En. Nik Daud Nik Sin and Tn. Hj. Misri for their valuable advices, constructive critics, suggestions and encourage me to do well in this project.

Special thanks are accorded to all marine and freshwater hatchery staffs of KUSTEM who always assisted me throughout the period of my project and I forward it to all my friends who were involved direct or indirectly for their undivided support and unselfish sacrifice of time, effort and tolerated me emotionally during my hard days in completing this project.

Last but not least, I am deeply indebted to my beloved parents who supported me with their prayers, motivation and encourage me unconditionally throughout my study in KUSTEM. Thank you so much and may Allah bless all of you.

ABSTRACT

This study covered the experiment on comparing the growth of sea anemones from the genus *Heteractis magnifica* under different types of food; minced fish, *Artemia*, liquid food and combination of *Artemia* and algae, and also to determine which food is the best to rear *Heteractis magnifica* in captive condition. The result showed that the highest growth was 411.63±5.56g from *Heteractis magnifica* fed by mixture of both items; *Artemia* and algae. One-Way ANOVA statistic analysis shows that there is significant different among all treatment involved ($p<0.05$). *Artemia* ensured high level of protein (40-60%), fatty acid and amino acid thus enhance *Heteractis magnifica* growth. *Heteractis magnifica* fed by *Artemia* alone recorded value of growth 311.88±3.87g, followed by liquid food with 212.80±5.99g and finally the lowest growth was *Heteractis magnifica* fed by minced fish with value 131.91±4.36g. Therefore, the best food for *Heteractis magnifica* in captivity is the live food; *Artemia* with highest rate of growth and provided good water quality.

ABSTRAK

Kajian ini meliputi perbandingan tumbesaran sea anemone dari genus *Heteractis magnifica* menggunakan empat jenis makanan yang berbeza iaitu ikan cincang, *Artemia*, makanan cecair serta campuran *Artemia* dan air hijau. Kajian ini juga untuk menentukan jenis makanan yang manakah terbaik untuk *Heteractis magnifica* dalam keadaan terkurung. Keputusan menunjukkan pertumbuhan yang tertinggi ialah 411.63±5.56g dari *Heteractis magnifica* yang diberi makan kombinasi *Artemia* dan air hijau. Analisis statistik ANOVA 1 hala menunjukkan terdapat perbezaan yang ketara antara keempat-empat jenis makanan ($p<0.05$). Pemberian *Artemia* membekalkan kandungan nutrien yang tinggi iaitu protein (40-60%), asid lemak dan asid amino untuk meningkatkan kadar pertumbuhan *Heteractis magnifica*. Manakala *Heteractis magnifica* yang diberi makan *Artemia* sahaja merekodkan kadar pertumbuhan sebanyak 311.88±3.87g diikuti pemberian makanan cecair dengan kadar pertumbuhan 212.80±5.99g dan kadar pertumbuhan yang terendah 131.91±4.36g ialah *Heteractis magnifica* yang diberi makan ikan cincang. Oleh itu, makanan yang terbaik untuk pemeliharaan *Heteractis magnifica* dalam keadaan terkurung ialah *Artemia* yang meningkatkan kadar pertumbuhan sekaligus memberikan tahap kualiti air yang baik.