

GERMAN IMPACTS ON LOCAL SOCIETY FROM 1870 TO 1914

BY

JOHN H. COOPER

CARNEGIE INSTITUTION OF WASHINGTON

MACHINERY, SCIENCE AND TRADE DEPARTMENT
FACULTY OF ENGINEERING AND TECHNOLOGY
KONINKLIJKE VRIJE UNIVERSITEIT SINGAPORE

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Human impacts on coral reef fish feeding activities / Sashi Kumar Dhanyan.

PERPUSTAKAAN

**KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
21030 KUALA TERENGGANU**

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HUMAN IMPACTS ON CORAL REEF FISH FEEDING ACTIVITIES

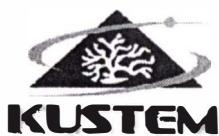
By

Sashi Kumar A/L Dhanyan

**Research Report submitted in Partial Fulfillment of
the requirement for the degree of
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JABATAN SAINS SAMUDERA
FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN 1 DAN 11**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

Human Impacts on Coral Reef Fish Feeding Activities oleh **Sashi Kumar Dhanyan** No Matrik **UK 8413** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Samudera sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah **Sarjana Muda Sains (Biologi Marin)**, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh,

A handwritten signature in black ink, appearing to read "LIEW HOCK CHARK".

Penyelia Utama

Nama: Prof. Madya. Liew Hock Chark

Cop Rasmi:

LIEW HOCK CHARK
Profesor Madya
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
21030 Kuala Terengganu, MALAYSIA.

Tarikh: **28/4/06**

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TABLE OF CONTENTS

| CONTENT | PAGE |
|-----------------------------------|-------------|
| APPROVAL FORM | ii |
| ACKNOWLEDGEMENTS | iii |
| TABLE OF CONTENTS | v |
| LIST OF TABLES | vii |
| LIST OF FIGURES | viii |
| LIST OF ABBREVIATIONS | x |
| LIST OF APPENDICES | xi |
| ABSTRACT | xii |
| ABSTRAK | xiii |
| 1.0 INTRODUCTION | 1 |
| 2.0 LITERATURE REVIEW | 5 |
| 2.1. Marine Park of Redang Island | 5 |
| 2.2. Coral Reef Fishes | 7 |
| 2.3. Fish Food Diet | 10 |
| 2.4. Fish Feeding Activity | 10 |
| 2.5. Fish Behavior | 11 |
| 3.0 MATERIALS AND METHOD | 13 |
| 3.1. Study Area | 13 |

| | |
|--|----|
| 3.2. Preliminary Observation | 16 |
| 3.3. Methods | 20 |
| 3.3.1. Sample collection | 20 |
| 3.3.2. Fish Sample Analysis | 20 |
| 3.3.2.1. Gut Content Analysis | 20 |
| 3.3.2.2. Fish Behavior | 24 |
| 4.0 RESULTS | 26 |
| 4.1. Observation on Fish Behavior | 26 |
| 4.2. Gut Content | 28 |
| 5.0 DISCUSSION | 34 |
| 6.0 CONCLUSION | 38 |
| REFERENCES | 39 |
| APPENDICES | 41 |
| 1. Observation Checklist | 41 |
| 2. Dry Weight of Targeted Fish Gut Content | 43 |
| 3. Percentage of Natural and Artificial Food | 45 |
| CURRICULUM VITAE | 46 |

LIST OF TABLES

| TABLE | PAGE |
|--|-------------|
| Table 4.1 Summary of result obtained by using Observation Checklist at two sampling areas. | 27 |

LIST OF FIGURES

| FIGURE | PAGE |
|--|-------------|
| 3.1 (a) Location of Terengganu State (encircled) in East Coast of Peninsular Malaysia. | 14 |
| Figure 3.1 (b) Sampling locations in Marine Park of Redang Island and Bidong Island. | 15 |
| Figure 3.2 Sergeant Major (<i>Abudefduf saxatilis</i>) | 16 |
| Figure 3.3 Scissortail Damsel (<i>Abudefduf sexfasciatus</i>) | 17 |
| Figure 3.4 Rabbit fish (<i>Siganus guttatus</i>) | 17 |
| Figure 3.5 Black Damsel (<i>Dischistodus chrysopoecilus</i>) | 17 |
| Figure 3.6 Moon Wrasse (<i>Thalassoma lunare</i>) | 18 |
| Figure 3.7 Twinstripe Fusilier (<i>Pterocaesio marri</i>) | 18 |
| Figure 3.8 Percentage of fishes attracted to artificial food in preliminary observation in Marine Park of Redang Island | 19 |
| Figure 3.9 Fish sample on Petri dish | 22 |
| Figure 3.10 Fish gut dissected out. | 22 |
| Figure 3.11 Fish gut on Petri dish. | 23 |
| Figure 3.12 Dried natural and artificial food on filter paper. | 23 |
| Figure 3.13 Scissortail Damsel and Sergeant Major were attracted to the fish feeding activity in Marine Park of Redang Island. | 25 |

| | |
|---|----|
| Figure 4.1 Type of food in percentage consumed by Sergeant Major and Scissortail Damsel in Marine Park of Redang Island | 28 |
| Figure 4.2 Food types in percentage in two types of targeted fishes in Bidong Island. | 29 |
| Figure 4.3 Arthropod from Scissortail Damsel in Marine Park of Redang Island | 30 |
| Figure 4.4 Marine insect skin from Sergeant Major in Marine Park of Redang Island | 30 |
| Figure 4.5 Arthropod from Scissortail Damsel in Bidong Island | 31 |
| Figure 4.6 Marine insect from Sergeant Major in Bidong Island | 31 |
| Figure 4.7 Zoea larvae of a crab from Scissortail Damsel in Bidong Island | 32 |
| Figure 4.8 Fish scale from Sergeant Major in Bidong Island | 32 |
| Figure 4.9 Marine insect from Sergeant Major in Bidong Island | 33 |
| Figure 4.10 Dragonfly larvae from Sergeant Major in Bidong Island | 33 |

LIST OF ABBREVIATIONS

ABBREVIATION

MPA Marine Protected Area

LIST OF APPENDICES

| APPENDIX | PAGE |
|--|-------------|
| Appendices 1. Observation Check List | 41 |
| Appendices 2.1(a) Dry weights of targeted fish gut content from Marine Park of Redang Island | 43 |
| Appendices 2(b) Dry weights of targeted fish gut content from Bidong Island | 44 |
| Appendices 3(a) Percentage of natural and artificial food found in targeted fish gut from Marine Park of Redang Island | 45 |
| Appendices 3(b) Percentage of natural and artificial food found in targeted fish gut from Bidong Island | 45 |

ABSTRACT

Fish feeding is one of the major activities in Marine Park of Redang Island. Bread is the major food used by tourist to feed the fish. Major type of fish attracted was damsels (Pomacentridae). Objectives of this study were to look at the impact of artificial food on coral reef fishes by analyzing fish behavior and gut content, comparison were made on two types of fishes; *Abudefduf saxatilis* (Sergeant Major) and *Abudefduf sexfasciatus* (Scissortail Damsel) from Marine Park of Redang Island and Bidong Island. Fish behavior and gut content analysis on fishes in the Marine Park and Bidong Island, will provide information on the behavior and biological impact on fishes that feed on artificial and natural food in these two different locations. By using an Observation Checklist, fishes from the Marine Park of Redang Island where fish feeding activity occurred showed that they were aggressive and not disturbed by human presence in water. Fishes were more attracted to tourists when they enter the water with bread. They did not go back to their natural habitat after being fed. But, the opposite situation was in Bidong Island where less fish feeding activity occurred. Targeted and non targeted fishes were very cunning and tame. Some of them being fed will go back to their natural habitat after feeding activity. Observation and gut content analysis of the targeted fishes in Marine Park of Redang Island showed that the majority of fishes consume artificial food fed by tourists. In Bidong Island, targeted fishes only consumed natural.

ABSTRAK

Aktiviti pemberian makanan kepada ikan-ikan terumbu karang merupakan aktiviti popular di Taman Laut, Pulau Redang. Roti merupakan bahan makanan utama digunakan oleh para pelancong untuk diberi kepada ikan. Jenis ikan yang sangat tertarik dengan aktiviti ini adalah daripada famili Pomacentridae. Tujuan utama kajian ini dijalankan adalah untuk menentukan kesan-kesan daripada makanan buatan kepada ikan-ikan terumbu karang melalui analisis ke atas sifat dan kandungan makanan dalam perut dua jenis ikan iaitu *Abudefduf saxatilis* (Sergeant Major) dan *Abudefduf sexfasciatus* (Scissortail Damsel) yang didapati dari Pulau Bidong dan Taman Laut, Pulau Redang. Kajian ke atas pemberian makanan terhadap spesis ikan terbabit akan memberi maklumat mengenai kesan daripada aktiviti ini yang memberi pendedahan kepada para pelancong terhadap aktiviti pemberian makanan. Pemerhatian dengan menggunakan Senarai Semak Pemerhatian mendapati ikan-ikan di Taman Laut, Pulau Redang sangat agresif dan tidak takut dengan kehadiran manusia. Ikan-ikan tersebut sangat tertarik kepada kehadiran manusia terutamanya dengan pemberian roti. Ikan-ikan tersebut juga tidak pulang ke habitat asal mereka selepas diberi makanan malah mereka masih berkeliaran di kawasan di mana aktiviti pemberian roti berlaku. Manakala, di Pulau Bidong pula spesis ikan yang sama tidak tertarik kepada aktiviti tersebut. Mereka akan takut dengan kehadiran manusia. Pemerhatian ke atas kandungan makanan dalam perut ikan dari Taman Laut, Pulau Redang menunjukkan sebahagian besar makanannya terdiri daripada roti manakala ikan dari Pulau Bidong pula hanya memakan makanan semulajadi.