Induced Spawning Technique of Mouse Grouper
*Cromileptes altivelis*

Shigeharu Senoo
Rossita Shapawi
Ridzwan Abdul Rahman

Borneo Marine Research Institute
Universiti Malaysia Sabah
Locked Bag 2073, 88999 Kota Kinabalu
http://www.ums.edu.my/ipmb/
Induced Spawning Technique of Mouse Grouper, *Cromileptes altivelis*
Induced Spawning Technique of Mouse Grouper, *Cromileptes altivelis*

Shigeharu Senoo
Rossita Shapawi
Ridzwan Abdul Rahman

Borneo Marine Research Institute
Universiti Malaysia Sabah
Lock Bag 2073, 88999 Kota Kinabalu
http://www.ums.edu.my/ipmb/
Induced spawning technique of mouse grouper, cromileptes altivelis/ Shigeharu Senoo, Rossita Shapawi, Ridzwan Abdul Rahman.

Bibliography: p.28
ISBN 983-2643-30-9
1. Fishes-Induced spawning-Technique.
2. Fishes-Breeding-Technique
I. Rossita Shapawi, 1971
II. Ridzwan Abdul Rahman, 1954-
III. Title 639.32

Muka taip teks : Times New Roman
Saiz taip teks: 12
Diterbitkan oleh Universiti Malaysia Sabah,
Beg Berkunci 2073, 8899 Kota Kinabalu, Sabah.

Dicetak oleh:
Syarikat Bumi Yakin
P. O. Box 22267, 88781 Luyang, Kota Kinabalu, Sabah.
Tel: 088-382399 Fax: 088382389
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>vii</td>
</tr>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Broodfish Culture in Cages</td>
<td>4</td>
</tr>
<tr>
<td>III. Broodfish Selection</td>
<td>7</td>
</tr>
<tr>
<td>1. Maturity of broodfish</td>
<td></td>
</tr>
<tr>
<td>2. Broodfish health</td>
<td></td>
</tr>
<tr>
<td>3. Broodfish handling and transportation</td>
<td></td>
</tr>
<tr>
<td>IV. Hormone Injection</td>
<td>13</td>
</tr>
<tr>
<td>V. Fertilization Process</td>
<td>16</td>
</tr>
<tr>
<td>1. Egg and sperm collection</td>
<td></td>
</tr>
<tr>
<td>2. Fertilization</td>
<td></td>
</tr>
<tr>
<td>VI. Incubation and Hatching Process</td>
<td>20</td>
</tr>
<tr>
<td>References</td>
<td>23</td>
</tr>
</tbody>
</table>
Preface

The manual Induced Spawning Technique of Mouse Grouper, *Cromileptes altivelis*, is the first volume of the Aquaculture Publication Series of Borneo Marine Research Institute (BMRI), Universiti Malaysia Sabah (UMS). It is written not only for the use of Aquaculture Program’s students, but also for fish farmers whom wish to involve in the culture of mouse grouper. The content is brief, compacted and supported by photos and illustrations to assist readers in understanding its content. The authors hope this manual will benefits students and fish farmers in their effort to contribute to the development of aquaculture industry.

The authors are very grateful to Tan Sri Professor Datuk Seri Panglima Dr. Abu Hassan Othman, Vice Chancellor of UMS for his encouragement and support in the making of the Aquaculture Publication Series. The authors also thank Professor Dr. Hirotsugu Kawatsu and Associate Professor Dr. Saleem Mustafa of BMRI for their critical reading of the manuscript. Thanks are due to the staff of BMRI’s Hatchery, especially Mr. Norazmi Osman, and the students of Aquaculture Program who gave technical assistance to the authors. The authors are also thankful to the staff of BMRI who directly or indirectly involved in the completion of this manual.

Shigeharu Senoo
Rossita Shapawi
Ridzwan Abd. Rahman

April 2004