



**Establishment and Operation of a Regional System of  
Fisheries *Refugia* in the South China Sea and Gulf of Thailand**

## **REPORT**

# **SEMINAR ON THE ESTABLISHMENT OF FISHERIES REFUGIA FOR LOBSTER IN TANJUNG LEMAN, JOHOR AND TIGER PRAWN IN KUALA BARAM, SARAWAK**

30 MARCH – 2 APRIL 2021

Prepared by  
**DEPARTMENT OF FISHERIES, MALAYSIA**

---

**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**  
TRAINING DEPARTMENT



First published in Phrasamutchedi, Samut Prakan, Thailand in July 2021 by the SEAFDEC-UNEP-GEF Fisheries Refugia Project, Training Department of the Southeast Asian Fisheries Development Center

Copyright © 2021, SEAFDEC-UNEP-GEF Fisheries *Refugia* Project

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. The SEAFDEC-UNEP-GEF Fisheries *Refugia* Project would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose without prior permission in writing from the SEAFDEC Secretary-General at.

Southeast Asian Fisheries Development Center  
Training Department  
P.O.Box 97, Phrasamutchedi, Samut Prakan, Thailand  
Tel: (66) 2 425 6100  
Fax: (66) 2 425 6110  
<https://fisheries-refugia.org> and  
<https://seafdec.or.th>

**DISCLAIMER:**

The contents of this report do not necessarily reflect the views and policies of the Southeast Asian Fisheries Development Center, the United Nations Environment Programme, and the Global Environment Facility.

For citation purposes this document may be cited as:

DOF/Malaysia. 2021. Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand, Report of the Seminar on the Establishment of Fisheries Refugia for Lobster in Tanjung Leman, Johor and Tiger Prawn in Kuala Baram, Sarawak. Southeast Asian Fisheries Development Center, Training Department, Samut Prakan, Thailand; FR/REP/MY30, 8 p.

**SEMINAR ON THE ESTABLISHMENT OF FISHERIES REFUGIA FOR LOBSTER IN TANJUNG LEMAN,  
JOHOR AND TIGER PRAWN IN KUALA BARAM, SARAWAK**

30 March until 2 April 2021

- 1) Department of Fisheries Malaysia (DOF) have organized a mini seminar on the establishment of fisheries refugia for lobster in Tanjung Leman, Johor and tiger prawn in Kuala Baram, Sarawak from 30 March to 2 April 2021. The seminar session was attended by 25 participants physically and virtually the following is the attendance list (APPENDIX 1).
- 2) A total of 9 studies from the Fisheries Research Institute's researchers have been presented. The list of presentations is as in APPENDIX 2.
- 3) The main objective of this seminar is as follows
  1. To inform the Department of Fisheries Malaysia about findings and recommendations of refugia's site selection.
  2. Information sharing platform between the expertise from Centre of excellence and the Department of Fisheries specifically on the site's characteristic and supporting technical data.
  3. Integrating research data to determine the boundaries of the refugia establishment area
  4. Determination of phase of the species life stage that needs to be managed and protected
  5. Evaluate and identify appropriate management measures based on the findings of the studies
  6. Discuss and formulate further actions towards the management of refugia areas identified.
- 4) As the result, from this seminar, researchers and seminar members agreed to the following:
  1. The Refugia for Lobster sites at Tanjung Leman, Johor and The Tiger Prawn Refugia sites in Kuala Baram, Sarawak were finalized APPENDIX
  2. The meeting members agreed to implement the protection of mature adults for both species especially during the breeding season.
  3. Good practices workshops and management measures will be held in the near future to evaluate aspects of management in accordance with socioeconomic and technical data on the both refugia sites
  4. Universiti Malaysia Terengganu (UMT) agreed to share data and information on the study of lobster and tiger prawns to help strengthen the research results.

**APPENDIX 1****LIST OF PARTICIPANTS**

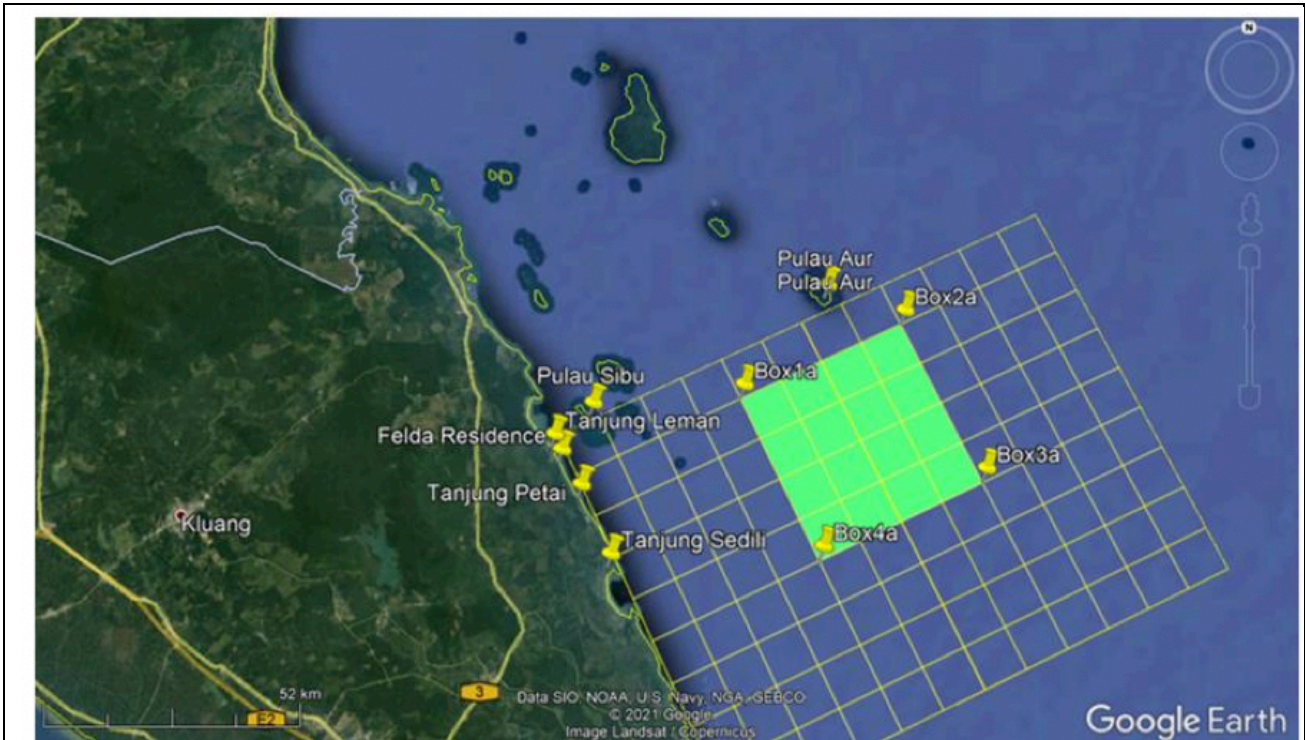
Prof. Dr. Mohd Ikhwanuddin bin Abdullah	Institute Of Tropical Aquaculture and Fisheries, University Malaysia Terengganu
Dr. Khor Wai Ho	Institute Of Tropical Aquaculture and Fisheries, University Malaysia Terengganu
Dr. Zainoddin bin Jamari	Director Fisheries Research Institute, Batu Maung, Penang Department of Fisheries
Mr. Hj. Mohd Sufian bin Sulaiman	Senior Director Marine Parks and Resource Management Division Fisheries Headquarters, Putrajaya
Mdm. Shamila binti Zainol	Head of Marine Parks Development and Marine Protection Section Marine Parks and Resource Management Division Fisheries Headquarters, Putrajaya
Mr. Sallehudin bin Jamon	Director Fisheries Research Institute Kg. Acheh, Lumut Perak
Mr. Jamil bin Musel	Director Fisheries Research Institute Bintawa, Sarawak
Mdm. Vaani a/p Muniandy	Fisheries Officer Planning and Development Division Fisheries Headquarters, Putrajaya
Mdm. Halina binti Hashim	Head of Marine Parks, Resource Management and Protection Section Pahang State Fisheries Office
Ms Bahrinah binti Bahrim	Head of Marine Parks, Resource Management and Protection Branch Johor State Fisheries Office
Mdm. Norhanida binti Daud	Senior Research Officer FRI Batu Maung Pulau Pinang
Mdm. Aishah binti Hj. Yusoff	Senior Fisheries Officer Marine Parks Development and Marine Protection Branch
Mdm Normah binti Said	Fisheries Officer Collaboration and Public Awareness Section Marine Parks and Resource Management Division Fisheries Headquarters, Putrajaya
Mr. Albert Apollo Chan	Fisheries Officer Ecosystem Conservation and Biodiversity Section Marine Parks and Resource Management Division Fisheries Headquarters, Putrajaya
Mdm. Noraishah binti Hashim	Director Johor State Fisheries Office
Mdm. Noor Hasmayana binti Yahaya	Head of Fisheries Resource Management Section Marine Parks and Resource Management Division Fisheries Headquarters, Putrajaya
Mr. Mohamad Saupi bin Ismail	Senior Research Officer FRI Batu Maung Pulau Pinang

Mr. Abd. Haris Hilmi bin Ahmad Arshad	Marine Fishery Resources Development and Management Department (MFRDMD), Terengganu
Liza binti Long	Deputy Director (Management) Sarawak Marine Fisheries Department
Mdm Nurridan binti Abd Han	Senior Research Officer FRI Bintawa Sarawak
Mr.Ryon Siow	Senior Research Officer FRI Kg. Aceh Perak
Mr. Rizwan bin Nordin	Fisheries Officer Sarawak Marine Fisheries Department
En. Gerald N. Misol JR	Marine Parks, Resource Management and Protection Branch Johor State Fisheries Office
Ms. Nur Hidayah binti Asgnari	Research Officer FRI Kg. Aceh Perak
Mdm. Nurashiqin binti Salih Udin	Fisheries Officer Marine Parks and Resource Management Division, Headquarters
Ms.Nor Amnah binti Taib	Assistant Fisheries Officer Marine Parks and Resource Management Division

#### APPENDIX 2:SEMINAR WORKING PAPERS

No.	SEMINAR PAPER
1	Study of Lobster Resources for the Establishment of a Fishery Refugia in East Johore Waters
2	Distribution and Density of <i>Phyllosoma</i> Lobster in East Johore and Pahang Waters of Peninsular Malaysia
3	The Report on the Study of Mud Spiny Lobster ( <i>Panulirus polyphagus</i> ) Distribution and Density in East Johor-South Pahang Waters: Observer-On- Board Survey 2019
4	Maturation and spawning of female adult <i>Penaeus monodon</i> in Kuala Baram, Miri, Sarawak
5	The Study of Tiger Prawn ( <i>Penaeus monodon</i> ) spawners, distribution, density and biomass in Kuala Baram, Miri Sarawak in 2019
6	The study of juvenile tiger prawn ( <i>Penaeus monodon</i> ), distribution, density and biomass of juvenile P. monodon in Sg. Pasu, Sg.Lutong and Sg. Bakam in Miri, Sarawak
7	Biological information of mud spiny lobster, <i>Panulirus polyphagus</i> in Johor, Malaysia
8	Pre-Project Effect Study of Establishment Of Mud Spiny Lobster Refugia Area On The Fishermen Socioeconomy Of South Pahang -East Johor
9	Pre-Project Effect Study of Establishment Of Tiger Prawn Refugia Area On The Fisherman Socioeconomy Of Kuala Baram, Sarawak

**APPENDIX 3:  
PROPOSED FISHERIES REFUGIA SITE FOR THE CONSERVATION OF MUD SPINY LOBSTER  
(*Panulirus polyphagus*) IN EAST JOHOR, MALAYSIA**



**Figure 1:** Proposed site (green box) for the fisheries refugia of mud spiny lobster (*Panulirus polyphagus*) in East Johor, Malaysia

**Table 1:** The coordinates for the proposed site for the lobster refugia at south of Pulau Aur, Johor

<b>Position</b>	<b>Latitude</b>	<b>Longitude</b>
Point Box1a	N 2° 14.670'	E 104° 21.753'
Point Box2a	N 2° 23.146'	E 104° 40.334'
Point Box3a	N 2° 04.972'	E 104° 48.686'
Point Box4a	N 1° 56.441'	E 104° 30.137'

**APPENDIX 4**  
**PROPOSED FISHERIES REFUGIA SITE FOR THE CONSERVATION OF TIGER PRAWN (*Penaeus monodon*) IN KUALA BARAM, SARAWAK, MALAYSIA**



**Figure 1:** Proposed site purple line for the fisheries refugia of tiger prawn (*Penaeus monodon*) in Kuala Baram, Sarawak

**Table 1:** The coordinates for the proposed site for the tiger Prawn in Kuala Baram, Sarawak

Position	Latitude	Longitude
Point 1	N4° 35.283	E114° 04.359
Point 2	N4° 47.202	E114° 03.548
Point 3	N4° 45.046	E113° 50.527
Point 4	N4° 36.671	E113° 45.883
Point 5	N4° 23.400	E113° 58.20

**ANNEX 5  
GROUP PHOTO**

