



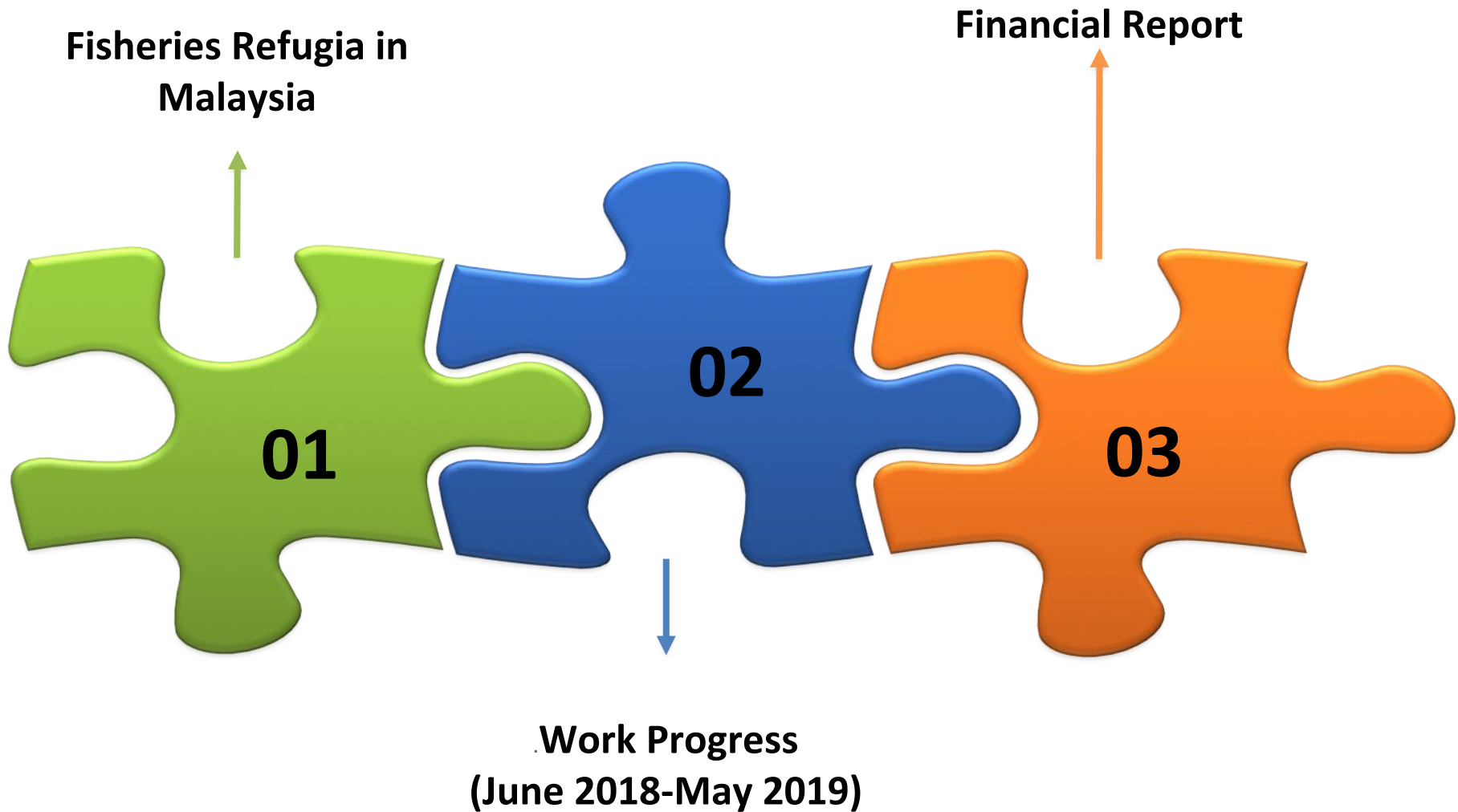
SEAFDEC/UN
ENVIRONMENT/GEF
Fisheries Refugia Project

**Progress Work of the
Project Activities in
Malaysia
(June 2018-May
2019)**

By
Department of Fisheries
Malaysia

The 2nd Regional Scientific and Technical Committee Meeting for the SEAFDEC/UN Environment/GEF Project on Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand, 21-23 May 2019,

Contents



1. Fisheries Refugia in Malaysia

- i. Lobster Refugia at Tanjung Leman, Johor
- ii. Tiger Prawn Refugia at Kuala Baram, Sarawak



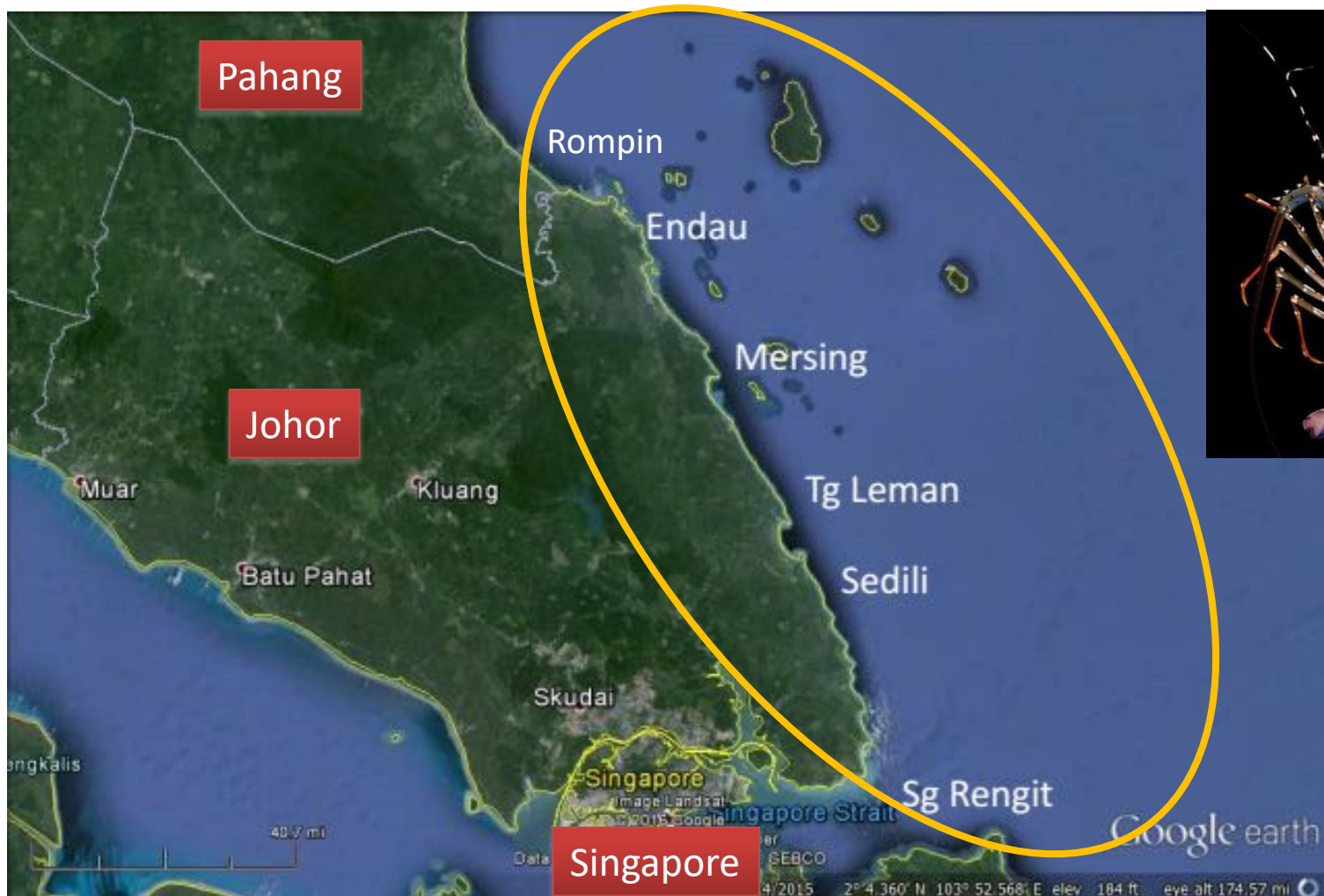
Refugia Sites in Malaysia



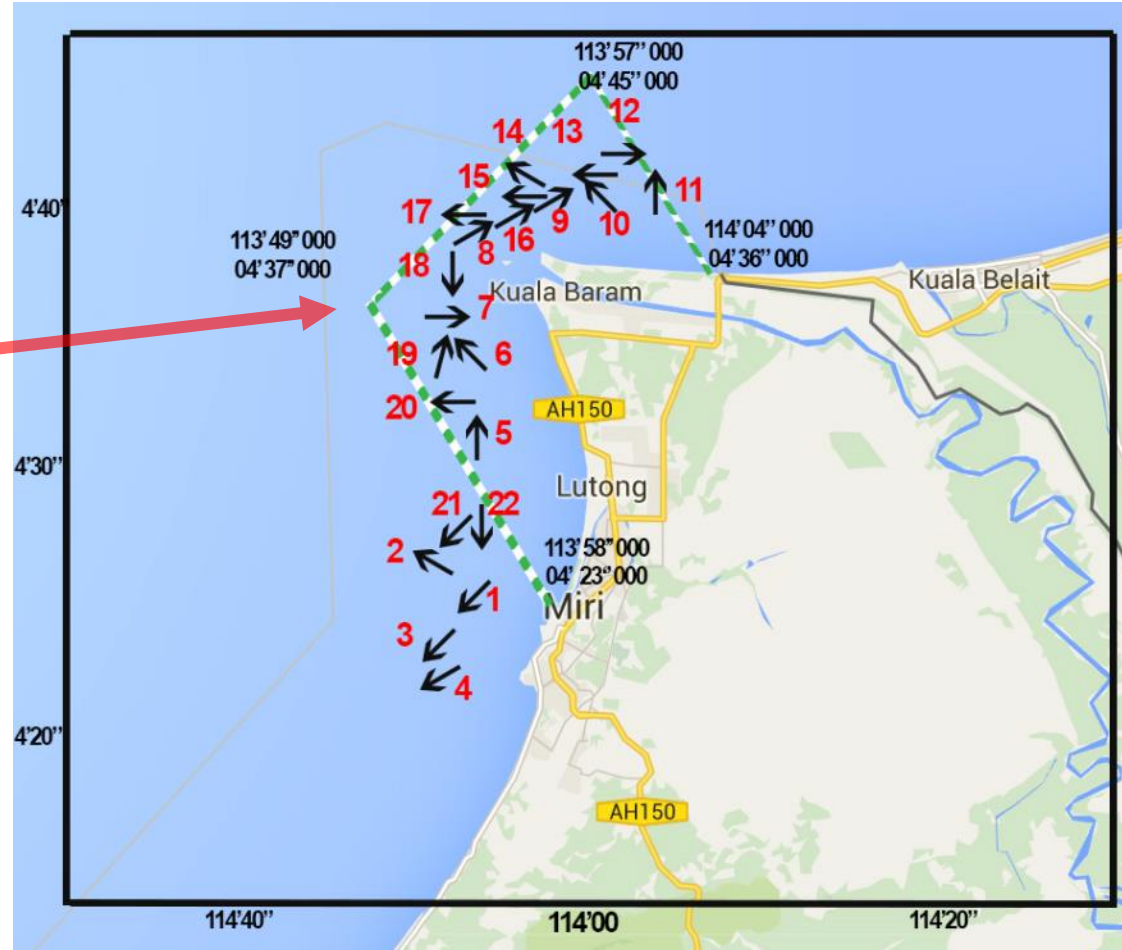
Site 1: Tanjung Leman, Johor – Lobster (*Panulirus* spp.)

Site 2: Kuala Baram, Sarawak – Tiger Prawn (*P. monodon*)

Spiny Lobster Fishery Area at South Pahang-East Johor

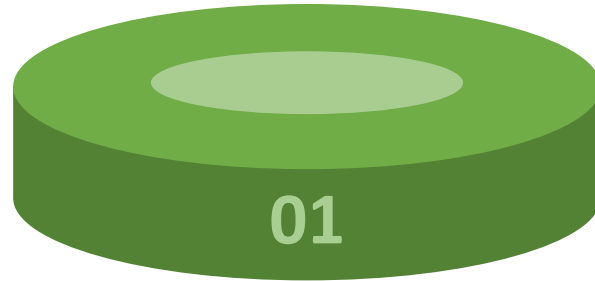


Proposed Tiger Prawn Refugia Site at Kuala Baram, Sarawak

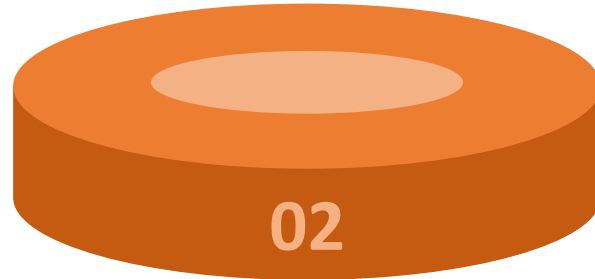


National Coordination Mechanism

National Fisheries Refugia Committee
(Focal point: Deputy Director General of Fisheries)



National Scientific and Technical Committee
(Focal point: Deputy Director of FRI)



Site Based Fisheries Refugia Committee

Tanjung Lemau



Kuala Baram



2. Work Progress 2018-2019





Lobster Refugia South Pahang – East Johor

Lobster Species

Panulirus ornatus



Panulirus polyphagus



Thenus orientalis



Lobster Refugia Related Activities

**Lobster Resource
Survey and
Documentary
Filming – Oct 2018**

**Socio-economic
survey**



**Collection of
lobster landing
data from several
sites (Sedili,
Tanjung Leman,
Endau)**

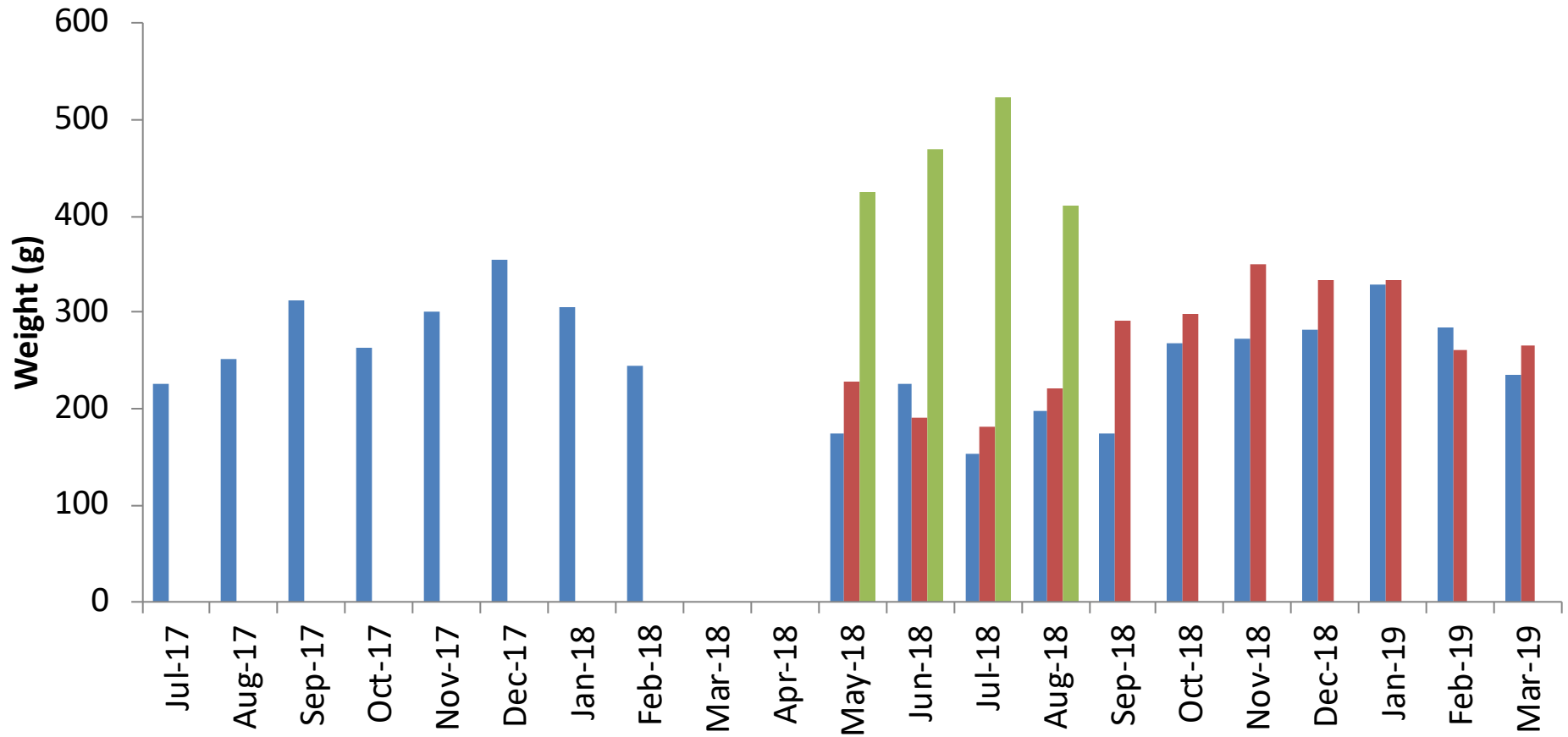
**Lobster Phyllosoma
Study (2017 &
2018)**

**Stakeholder
consultation**

Lobster Landing Trend: Johor Area

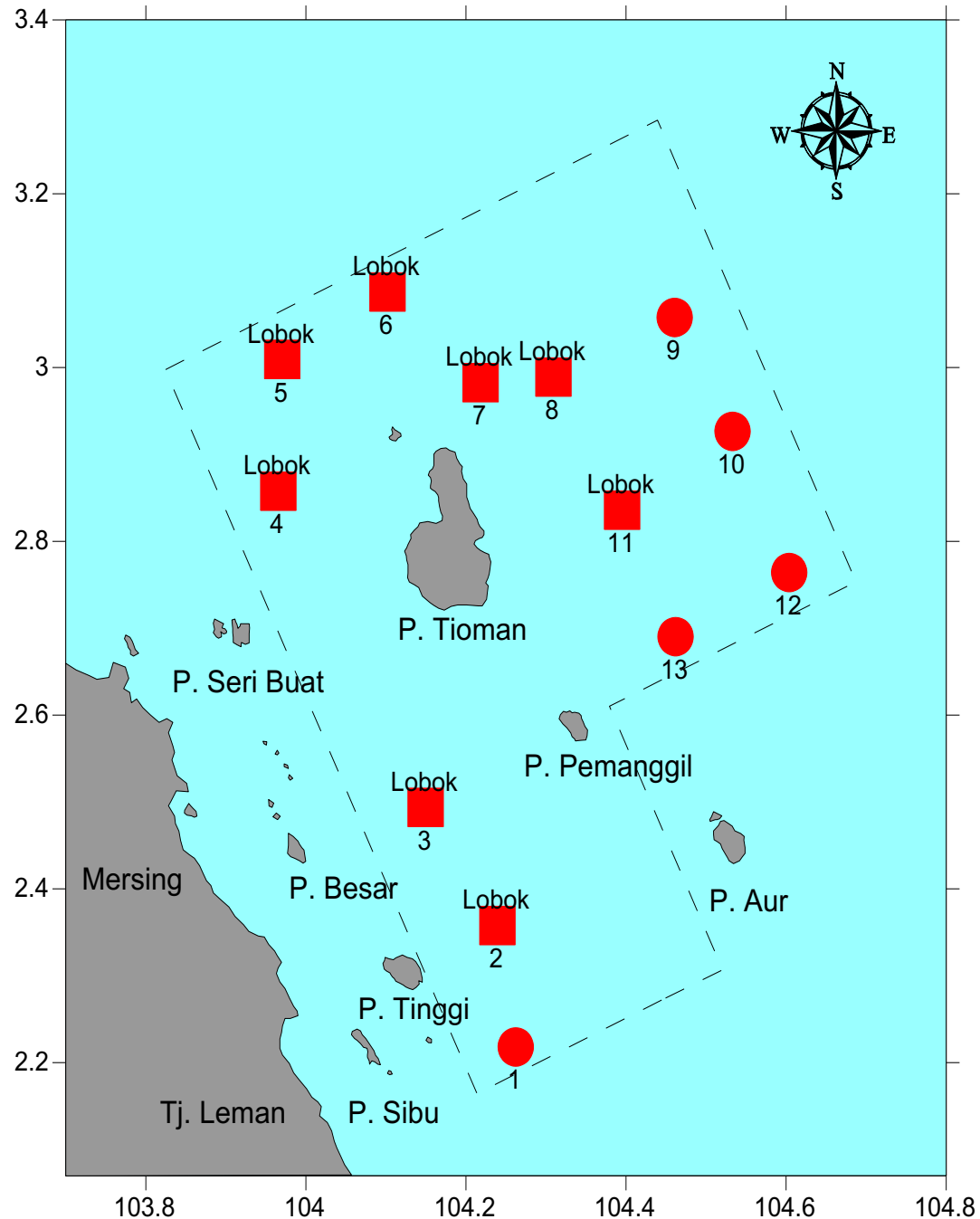
Average Weight of Spiny Lobster (*P. polyphagus*) at Sedili, Tj. Leman & Endau

SEDILI TG.LEMAN ENDAU

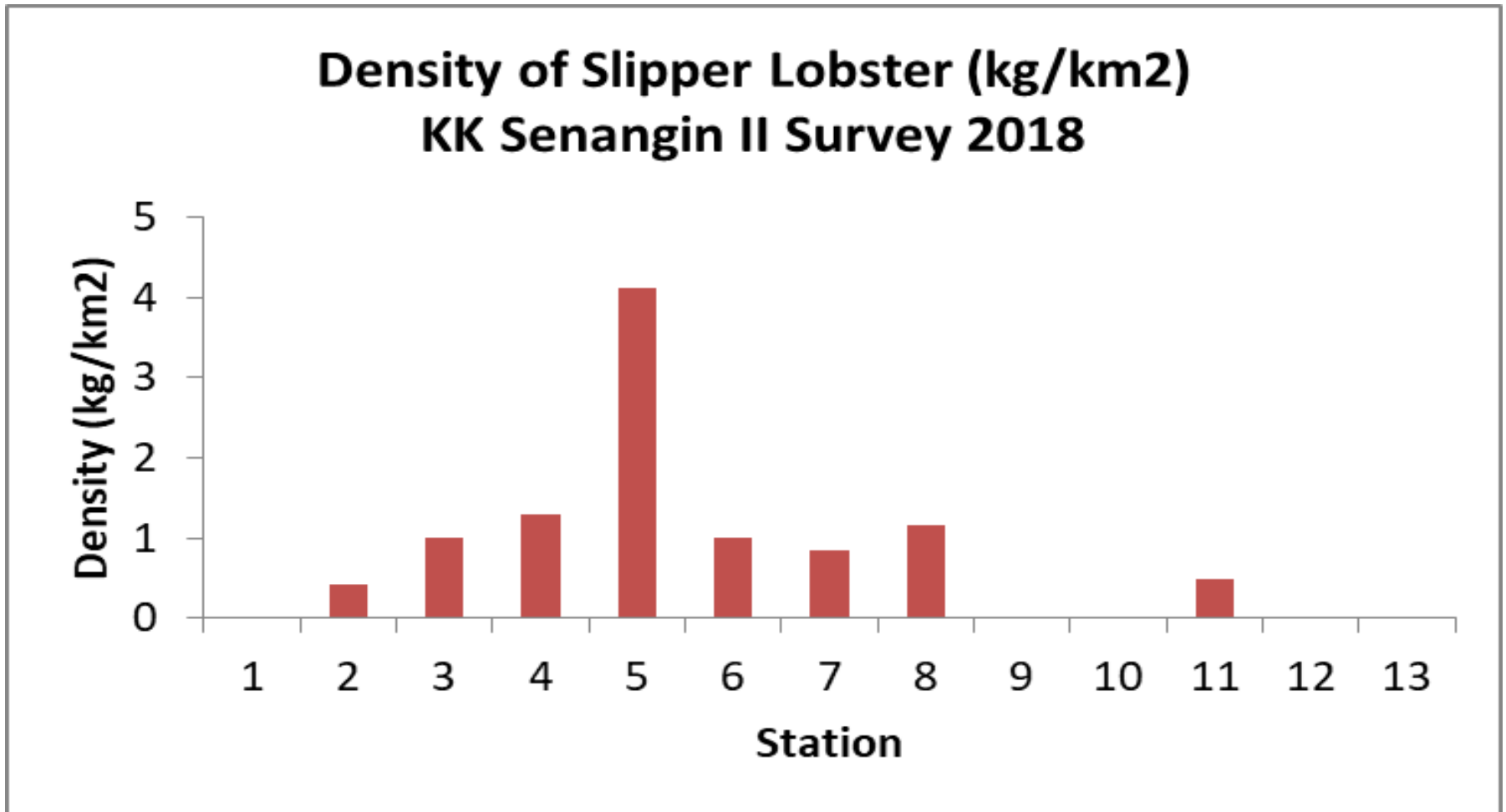


Lobster Resource Survey, 24-28 Oct 2018

- Location of survey stations
- Only slipper lobsters were caught during the survey (red square)
- Study area (dotted line) estimated to be about 6294 km square



Average Density of Slipper Lobster



- 8 locations
- Average density 1.29 ± 0.42 kg.km⁻²

Distribution and Density of Phylosoma in East Johor Waters

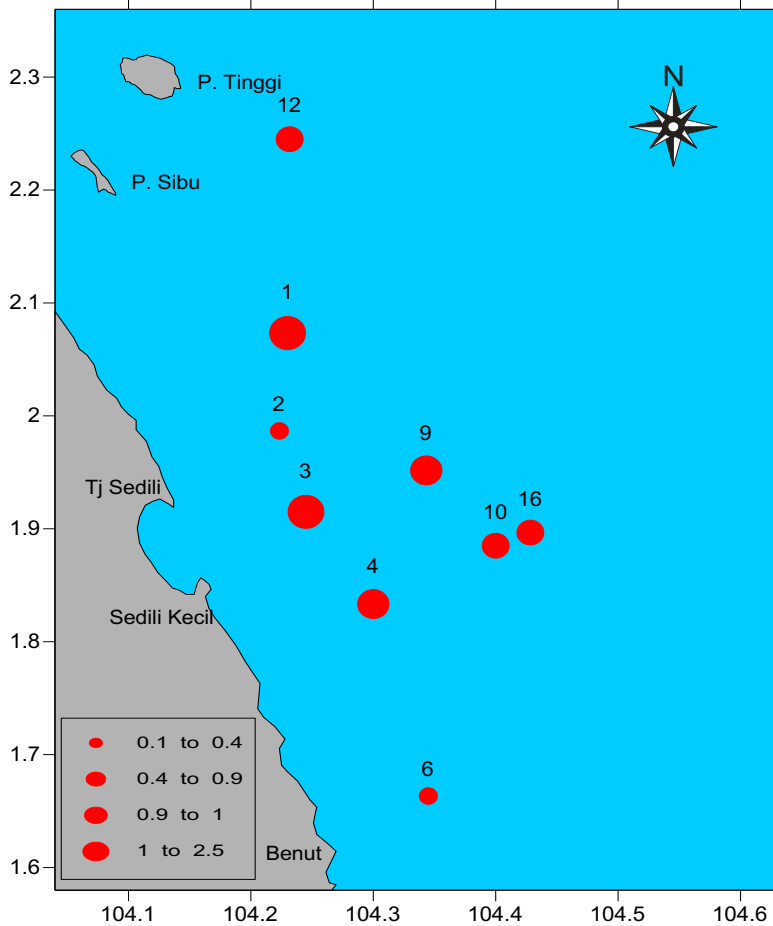


Phyllosoma Panulirus spp.

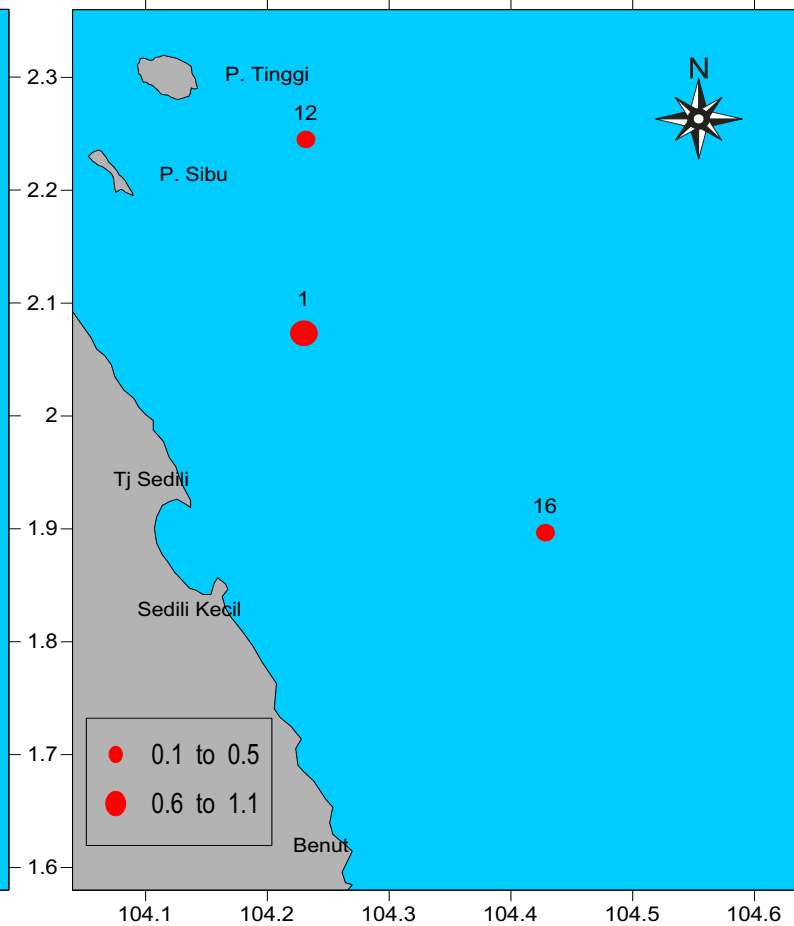


Phyllosoma Thenus orientalis

Phyllosoma density from year 2017 survey (Tanjung Leman waters)



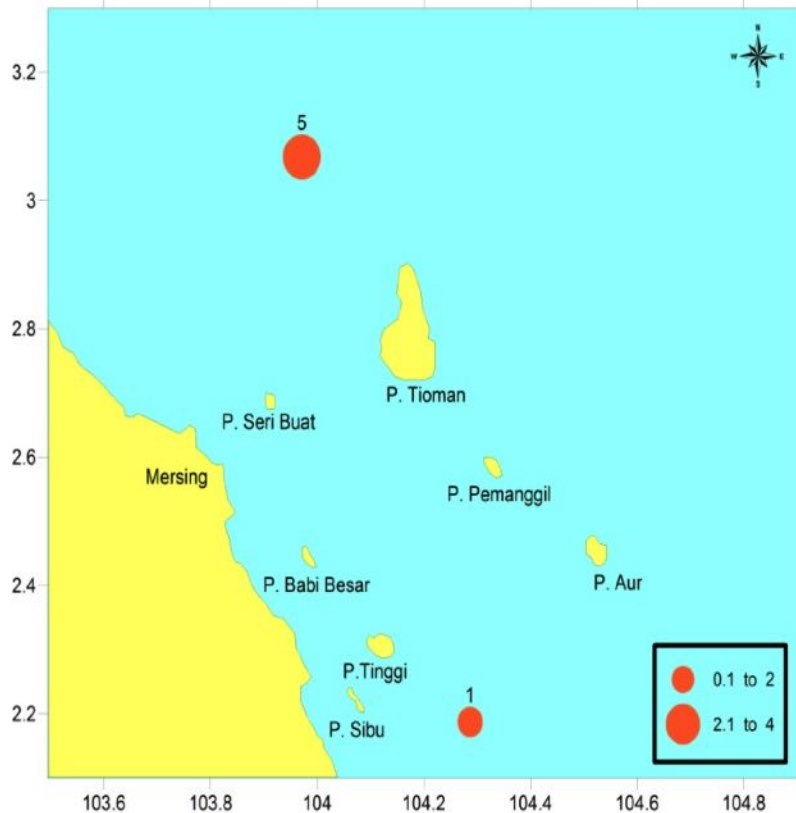
(a) *Panulirus sp.*



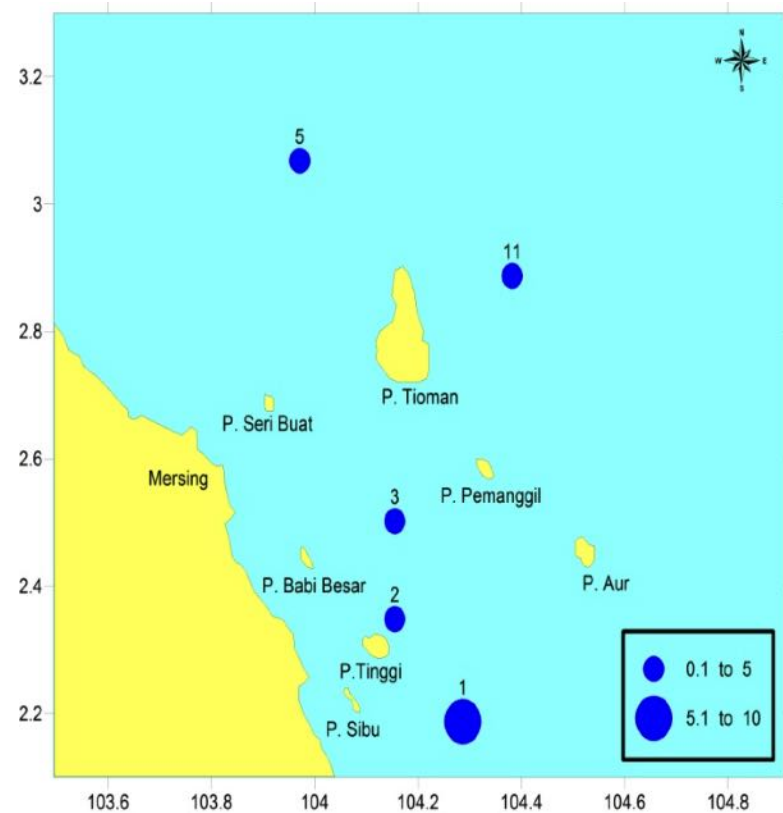
(b) *Thenus orientalis*

Density (ind./1000m³) of (a) *Panulirus spp.* dan (b) *Thenus orientalis* phyllosoma in 2017 survey.

Phyllosoma density from year 2018 survey (Tioman archipelago)



(a) *Panulirus* sp.



(b) *Thenus orientalis*

Density (ind./1000m³) of (a) *Panulirus* spp. dan (b) *Thenus orientalis* phyllosoma in 2018 survey.



Resource Survey and Documentary Filming of Lobster Onboard of RV Senangin II

Resource Survey and Documentary Filming of Lobster Onboard of RV Senangin II



Resource Survey and Documentary Filming of Lobster Onboard of RV Senangin II



Laboratory work at Sedili Laboratory

Refugia Stakeholder Consultation in conjunction with Resource Awareness Program in Pulau Tioman, 9 Oct 2018



Refugia Stakeholder Consultation in conjunction with Resource Awareness Program in Pulau Tioman, 9 Oct 2018



Socio Economic Survey 2018 (Kuala Rompin – Sungai Musoh, Johor)



Publications 2018-2019

01

Ryon Siow, Abd Haris Hilmi A.A. and Nur Hidayah A. (2019). Lobster Resource Study in East Johor. Oral. Simposium Penyelidikan Perikanan Tangkapan Marin, Penang. 2-3 Oct 2018. (*in press*)



02

Noor Hanis, A.H. and Ryon Siow. (2019). Lobster Resources and Fisheries in Sedili, Johor. Oral. Seminar Penyelidikan Perikanan, FRI Bt. Maung. 22-24 Jan 2019. (*in press*)



03

Norhanida Daud and Rozita Hani S. (2018). Kajian Kesan Pra-Projek Penubuhan Kawasan Refugia Udang Karang Terhadap Sosio-Ekonomi Nelayan Pahang Selatan – Johor Timur. Report. FRI Batu Maung.



04

Abd Haris Hilmi A.A., Nadiyatul Atikah H. and Nur Hidayah A. (2019). Taburan, Kepadatan dan Komposisi Spesies Larva Udang Karang (Filosoma) di Perairan Johor Timur. Report. FRI Kg. Acheh.



Coordination Meeting, 6-7 December 2018, Putrajaya



Coordination Meeting, 10 April 2019, Putrajaya



Technical and Scientific Committee Meeting, 25-26 April 2019, Kuching, Sarawak



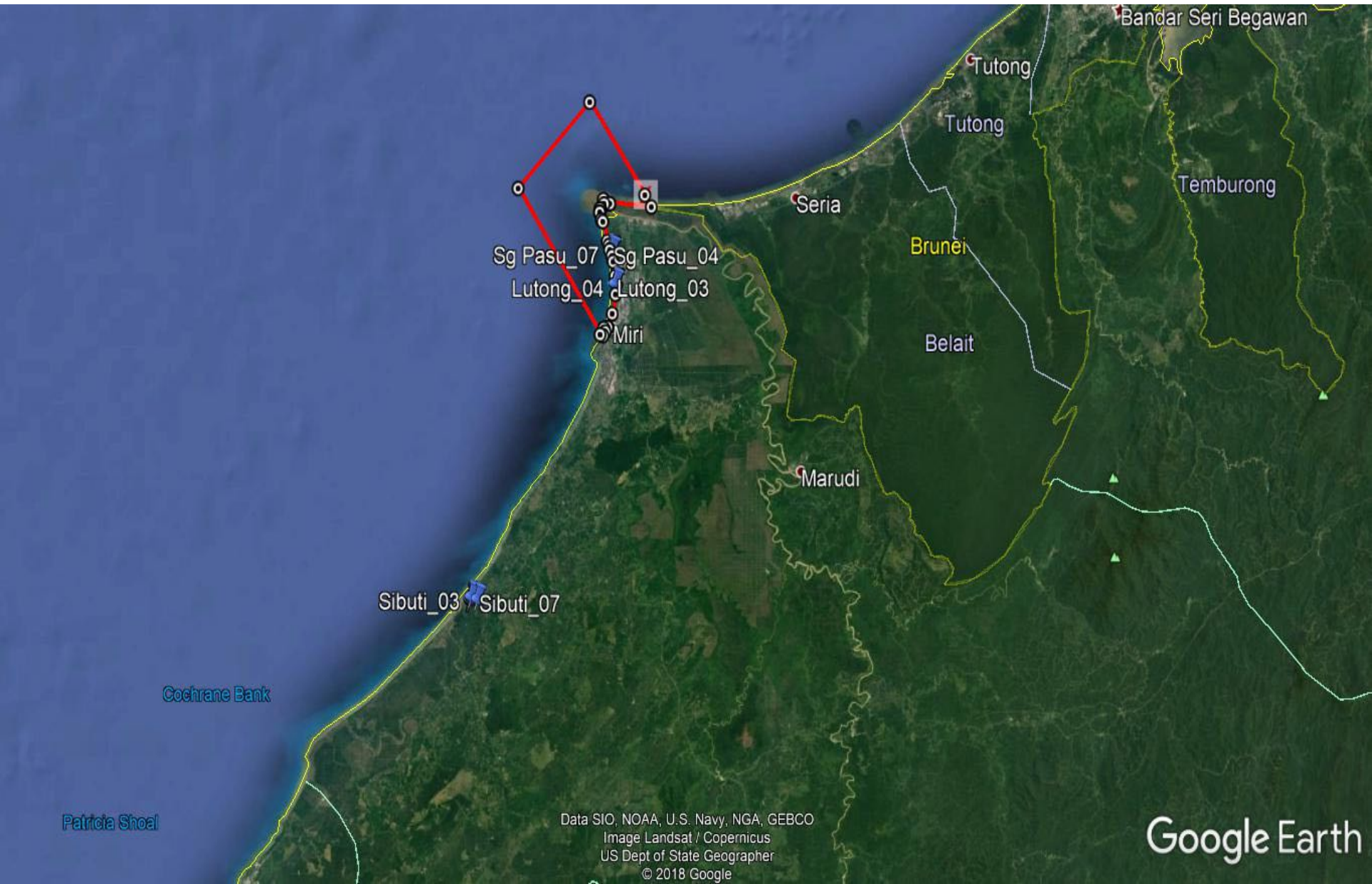
Preview: Documentary on Lobster Refugia, Tg Leman, 25th Dec 2018





Tiger Prawn Refugia Kuala Baram, Sarawak

Tiger Prawn Survey Locations (Juvenile)



Study Site 1: Sungai Lutong



- Salinity : 15 to 17 ppt
- River length: 1.5 km
- River width : 30-40 metre
- 8 location
- Near to PETRONAS gas pipeline
- Oil spill over in river

Image © 2019 DigitalGlobe

© 2018 Google

Google Earth



Species composition



Cast net



Juvenile tiger prawn catch by cast net

CPUE and Catch Composition

Casting no :40 times in 3 hours

CPUE : 0.83 tail/cast OR 30 g/cast

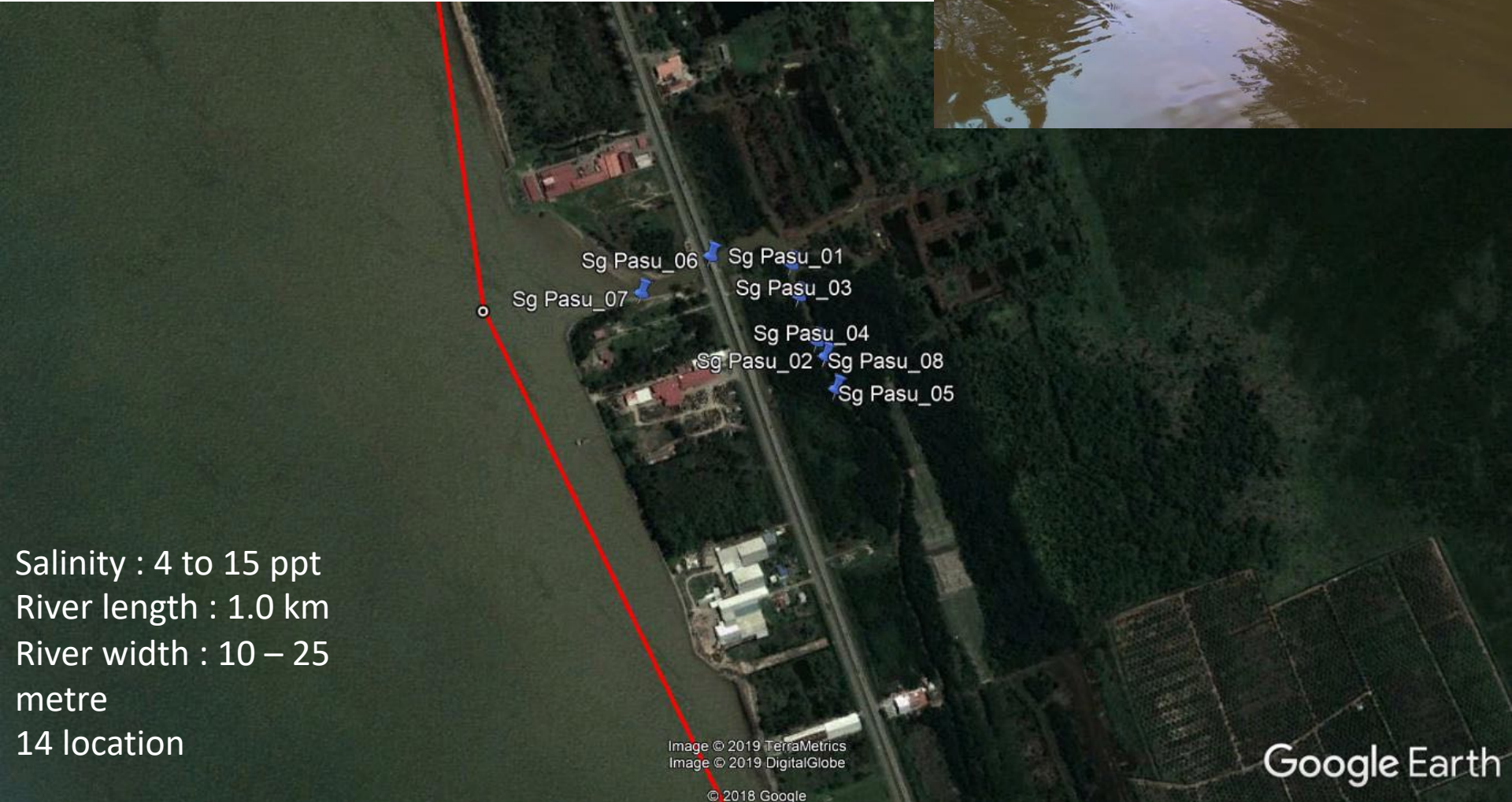
33 tail total weight : 1.2 kg

Species composition :

- i. *Fenneropenaeus merguensis*
(Banana prawn)
- ii. *Moolgarda cunnesius*
(Kedera/Belanak)
- iii. *Carangoides* sp.
- iv. *Pomadasys kaakan* (Gerut gerut)
- v. *Gerres erythrourus* (Kapas sungai)
- vi. *Megalops cyprinoides* (Bulan bulan)
- vii. *Eubleekeria splendens* (Kikek)
- viii. *Lutjanus argentimaculatus* (Ikan merah bakau),
- ix. *Thryssa setirostris*
- x. *Chelon subviridis* (Kedera/Belanak)

Cast net diameter : 10 metre

Study Site 2: Sungai Pasu



Salinity : 4 to 15 ppt
River length : 1.0 km
River width : 10 – 25
metre
14 location

Image © 2019 TerraMetrics
Image © 2019 DigitalGlobe

© 2018 Google

Google Earth



CPUE and Catch Composition

15 tail total weight 589.6 gram

Casting no : 63 times in 3 hours

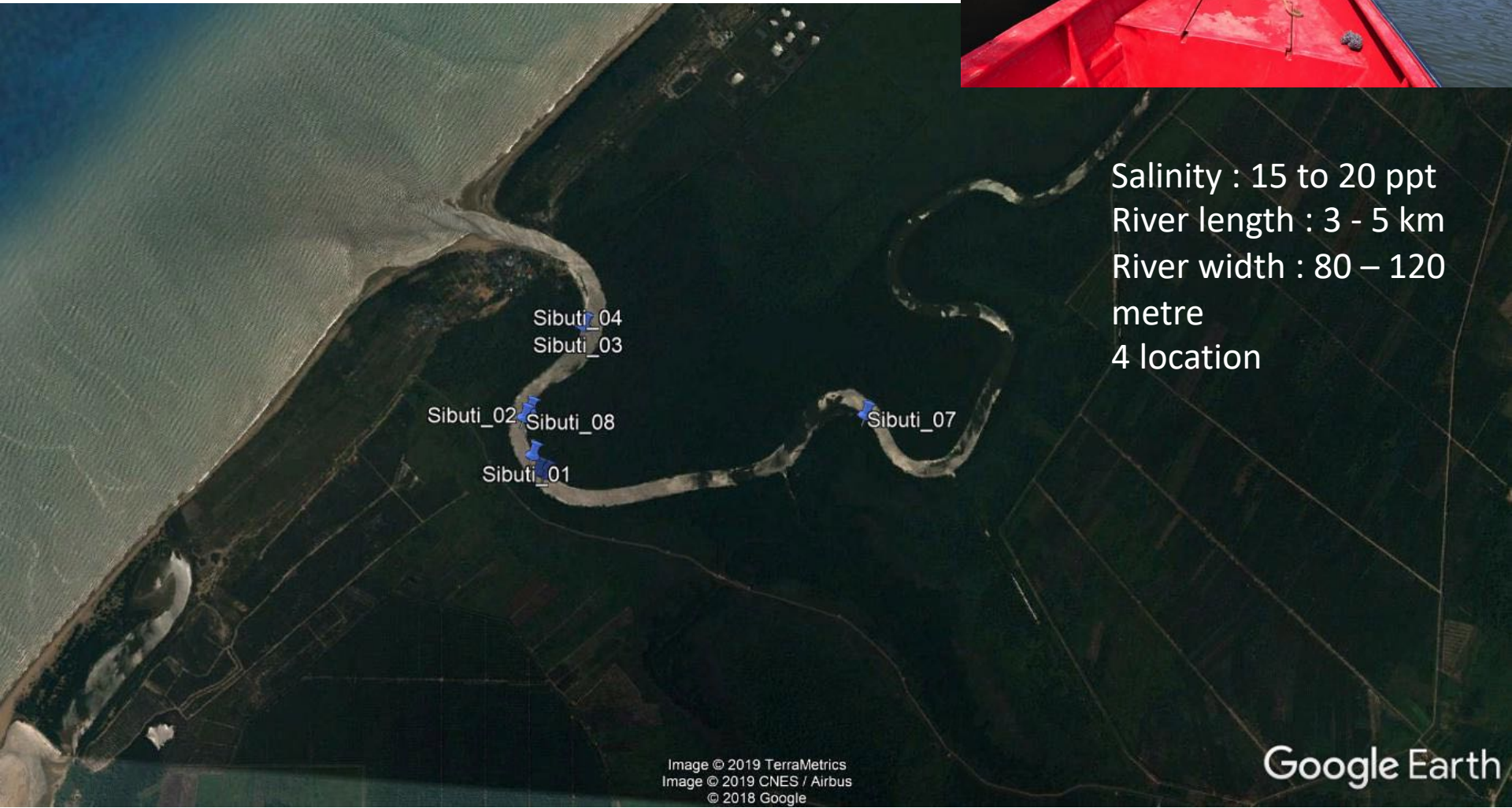
CPUE : 0.24 tail/cast OR 9.36 g/cast

Species composition:

- i. *Siganus* sp., (Kitang),
- ii. *Fenneropenaeus merguensis*
- iii. *F. indicus*
- iv. *Metapenaeus brevicornis* (Yellow prawn)
- v. *Coilia borneensis* (Gonjeng)
- vi. *Encrasicholina punctifer* (Bilis)
- vii. *Raconda russeliana* (Ikan nipis)
- viii. *Otolithes ruber* (Gelama jarang gigi),

Cast net diameter : 10 metre

Study Site 2: Sungai Sibuti



Salinity : 15 to 20 ppt
River length : 3 - 5 km
River width : 80 – 120 metre
4 location



CPUE and Catch Composition

8 tails total weight 320.8 gram

Casting No 30 times in 3 hours

CPUE : 0.27 tail/cast OR 10.7 g/cast

Sampling at night

Species composition:

- i. *Siganus* sp., (Kitang)
- ii. *Fenneropenaeus merguensis*
- iii. *F. indicus*
- iv. *Metapenaeus brevicornis* (Yellow prawn)
- v. *Coilia borneensis* (Gonjeng)
- vi. *Encrasicholina punctifer* (Bilis)
- vii. *Raconda russeliana* (Ikan nipis)
- viii. *Otolithes ruber* (Gelama jarang gigi),

Cast net diameter : 10-15 metre

Stakeholder Meeting (Multi Agencies), 6 September 2018, Miri, Sarawak



Resource Survey and Documentary Filming of Tiger Prawn



Resource Survey and Documentary Filming of Tiger Prawn



Preview: Documentary on Tiger Prawn Catch in Kuala Baram, 4th Dec 2018



3. Financial Report Q1 - 2019



Budget Allocation

2017

**National Fund
USD 34,998**



2018

**National Fund
USD 81,503**

**GEF
USD 81,503**



2019

**National Fund
USD 105,475**

**GEF (Q1)
USD 15,132**



Note: Budget allocation from 11th Malaysia Plan (not include OE)

South China Sea Fisheries Refugia Initiative
Project Statement of Allocation, Expenditure and Balance from January 2018 to 30 April 2019

TOTAL ALLOCATION **USD 250,000.00**
1ST REMITTANCE **USD 27,230.00 / RM 104,835.50**
2ND REMITTANCE **USD 15,131.66 / RM 61,585.86**

Code	Description	Budget Allocation (USD)	Actual Expense (USD)	Balance (USD)
10	<u>PROJECT PERSONNEL COMPONENT</u>			
1100	Project Personnel			
1101	Appointment of project manager	5,221	4,675	546
1199	Sub total	5,221	4,675	546
1200	Consultants	0	0	0
1201	Literature review and data collection	240	0	240
1202	Analysis of larvae sample from East Johor	1,703	1,309	394
1299	Sub total	1,943	1,309	634
1600	Travel on official bussiness	0	0	0
1601	Site based survey and reconnaissance for socio-economic study	2,849	946	1,903
1608	Daily collection of lobster & tiger prawns landing data			
	Sedili			
	Pengerang			
	Mersing			
	Rompin			
	Kuala Baram	18,757	14,177	4,580
1699	Sub total	21,606	15,123	6,483
	COMPONENT TOTAL	28,770	21,107	7,664

20 SUB-CONTRACT COMPONENT				
	COMPONENT TOTAL	0	0	0
30 TRAINING COMPONENT				
3200	Group training			
3201	Workshop on past lobster survey data on lobster resources in johor waters & Tiger prawns survey in sarawak waters	3,293	1,277	2,016
3202	Consultation workshop with the traditional gears fishermen in Rompin	0	0	0
3203	National Fisheries Refugia Committee Meeting	2,459	2,727	-268
3204	1 meeting in Johor,Pahang and Sarawak	2,256	519	1,737
3299	Sub total	8,008	4,524	3,485
	COMPONENT TOTAL	8,008	4,524	3,485
40 EQUIPMENT & PREMISES COMPONENT				
4300	Premises	0	0	0
4301	Establish 1 information center for refugia site	4,800	11,350	-6,550
4399	Sub total	4,800	11,350	-6,550
	COMPONENT TOTAL	4,800	11,350	-6,550
50 MISCELLANOUS COMPONENT				
5200	Reporting costs			
	Printing costs	783	0	783
	COMPONENT TOTAL	783	0	783
TOTAL		42,361	36,980	5,382



thank you