



THE 2<sup>ND</sup> INTERNATIONAL CONFERENCE ON FISHERIES AND MARINE  
FISHERIES AND MARINE FACULTY  
KHAIRUN UNIVERSITY TERNATE-INDONESIA



# Certificate

No: 16 /ICFM-II/OP/FPIK-U/VII/2021

This is to certify that

*Danu Sudrajat*

has participated as

**Oral Presenter**

In The 2<sup>nd</sup> International Conference on Fisheries and Marine (ICFM-II)  
*“Sustainable Management of Fisheries and Marine of Wallacea Region”*

Thursday, 15 July 2021



Dean

Dr. M. Janib Achmad, S.Pi, M.Sc



Rector

Prof. Dr. Husen Alting, MH

Chairman

Bahar Kaidati, SE, M.Si



## A COLLECTION OF ABSTRACTS

THE 2<sup>nd</sup> INTERNATIONAL CONFERENCE FISHERIES AND MARINE

**(ICFM II) 2021**

FISHERIES AND MARINE SCIENCE FACULTY  
KHAIRUN UNIVERSITY

*"Sustainable Management of Fisheries and Marine  
of Wallacea Region"*

#

**Ternate, July 15, 2021**

A collection of abstracts and a list of presenters based on the topic

**INTERNATIONAL CONFERENCE ON FISHERIES AND MARINE  
(ICFM II) 2021  
BY FISHERIES AND MARINE SCIENCE FACULTY, KHAIRUN UNIVERSITY**

**Conference Theme:**

*“Sustainable Management of Fishery and Marine of Wallacea Region”*

**Conference Topic**

- Aquaculture
- Oseanography
- Conservationn
- Biotechnology
- Sustainable Fisheries

Online (Zoom)

July 15, 2021

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## About ICFM II

### **The 2<sup>nd</sup> International Conference On Fisheries and Marine Fishery and Marine Science Faculty, Khairun University**

July 15, 2021

Theme:

***“Sustainable Management of Fishery and Marine of Wallacea Region”***

#### **Background**

Wallacea region covers one of most important world biological and ecological region. It is a center of world marine biodiversity and fishery resources. Wallacea also a critical mixing zone on earth: biologically, oceanographically, and climatologically. It is a place where Asia's wildlife meets Australia's one; a place where water masses of Pacific Ocean meets Indian Ocean one; a place where regional winds converge and generates Walker Circulation. So, it should be a lovely place for academic exchanges to build better understanding and knowledge, data and information, and cooperative and collaboration regionally and globally. To start achieving the goal, Fishery and Marine Science of Universitas Khairun would like to host a scientific conference to bring together best minds on the issues from various nations.

#### **Objectives**

1. Collecting and exchanging of scientific information and knowledge between Indonesian academia and other countries on the issues of fishery and marine resources management in Wallacea region.
2. Publishing conference results nationally, regionally and internationally.
3. Putting stepping-stones for further communication, data-sharing, and collaborative research networking among regional and international academia on Wallacea region management issues.

List of Presenters  
and  
Presentation Order by Topic

**THE 2<sup>nd</sup> INTERNATIONAL CONFERENCE ON FISHERIES AND MARINE  
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## 1. AQUACULTURE

Number	Name	Title of Abstract
1	Suwardi Tahe	Growth and survival rate of transfection and non-transfection tiger shrimp ( <i>Penaeus monodon Fabricius</i> ) broodstock candidate in pond cultivation
2	Eko Nurcahya Dewi	Gracilaria sp. as a Potential Enrichment Dietary Fiber in Yogurt Fermented by <i>Streptococcus thermophilus</i> and <i>Lactobacillus plantarum</i>
3	I Nyoman Adiasmara Giri	Fish hydrolysate supplemented diet improved feed efficiency and growth of coral trout grouper ( <i>Plectropomus leopardus</i> )
4	Andi Sahrijanna	FLUCTUATION OF WATER QUALITY IN DIFFERENT TIMES IN CULTIVATION OF VANAME SHRIMP ( <i>Litopenaeus vannamei</i> ) IN MULSA SHRIMP WITH A CLOSED RECIRCULATION SYSTEM
5	Isti Koesharyani	Study on milky diseases infection in wild and cultured of spiny lobster, <i>Panulirus homarus</i> in Indonesia
6	Dian Yuni Pratiwi	A Review : The Use of Algae as Aquafeed to Improve Growth Performance of Fish
7	Dewi Syahidah	Characteristics of hemolysins from pathogenic bacteria in tropical aquaculture: an in-silico study
8	Ketut Mahardika	Disease surveillance of cultured marine fish in the North of Bali, Indonesia
9	Sri Andayani	THE EFFECT OF ALKALOID FROM JELLYFISH ( <i>Bougainvillia</i> sp) AS IMMUNOSTIMULANT TO CHARACTERIZATION PROTEIN AND PHAGOSITE ACTIVITY OF TIGER GROUPER ( <i>Fuscoguttatus epinephelus</i> ) <i>Potential of jellyfish alkaloid (Bougainvillia sp) as immunostimulant by immersion in the characterization of tiger grouper protein and macrophages</i>
10	Fittrie Meyllianawaty Pratiwy	Daily Feeding Activity of sevenband grouper <i>Epinephelus septemfasciatus</i> under net-pen self-feeding system
11	Hidayat Suryanto Suwoyo	The nursery of <i>Litopenaeus vannamei</i> in different density using aeration system on pond
12	Early Septiningsih	Phytoplankton Condition in Vannamei Shrimp Pond Conditions with Application of Different Protein Foods

Number	Name	Title of Abstract
13	Nunik Cokrowati	Identification of growth promoting substances in <i>Kappaphycus alvarezii</i> cultivated in Ekas Bay, East Lombok Regency, West Nusa Tenggara, Indonesia
14	Dr.Rosmiati,S.Si.,M.Sc	Improving Reproduction Performance of Tiger <i>Shrimp Penaeus monodon</i> Broodstock pond origin with Induction 17 $\alpha$ -Methyltestosterone
15	Sudewi	Growth and survival of spiny lobster, <i>Panulirus homarus</i> fed formulated diet and fresh food
16	Rovina Andriani	Different Combination of Culture Medium on The Growth and Nutrition Content of Black Soldier Fly Larvae ( <i>Hermetia illuens</i> )
17	Indah Istiqomah	CULTIVATION OF SALINE tilapia ( <i>Oreochromis</i> sp.) DURING PANDEMIC COVID-19 IN TAYU DISTRICT, PATI REGENCY, INDONESIA
18	Kinanthi Sekar Nareswari	CULTIVATION OF NILE TILAPIA ( <i>Oreochromis</i> sp.) IN NGANJAT VILLAGE, POLANHARJO DISTRICT, KLATEN, CENTER OF JAVA, INDONESIA DURING THE REGIONAL QUARANTINE

## 2. BIOTECHNOLOGY

No Urut Presentasi	Nama	Judul Artikel
1	Dr. Ismail Marzuki, M.Si	Biodegradation Mechanism of Naphthalene Using Sea Sponge Symbiotic Bacteria
2	Haryanti Gondol	The effect of probiotics on digestive enzyme activity during larvae and juvenile stage of Yellow Fin Tuna ( <i>Thunnus albacares</i> )
3	Siti Aisiah	LCMS profile of jeruju ( <i>Acanthus ilicifolius</i> ) leaves with antibacterial activity on <i>Aeromonas hydrophila</i>
4	Wendy Alexander Tanod	GCMS profile of mangrove <i>Bruguiera gymnorrhiza</i> fruit extracts with antibacterial and antioxidant activity



No Urut Presentasi	Nama	Judul Artikel
5	Muhammad Marzuqi	Inclusions of probiotic and prebiotic in diet for coral trout, <i>Plectropomus leopardus</i> nursery
6	Andi Tenriulo	APPLICATION OF dsRNA VP24-WSSV AT DIFFERENT LARVAL STAGES OF TIGER SHRIMP <i>Penaeus monodon</i> BY ORAL ADMINISTRATION
7	Endang Susianingsih	Identifikasi Molekuler Bakteri Penghasil PHB ( <i>Poly β hidroksilbutirat</i> ) yang diisolasi dari Hasil Samping Sisa Produksi Pabrik Gula
8	Sari Budi Moria Sembiring	ISOLATING AND CHARACTERIZING BACTERIA IN THE INTESTINE OF SANDFISH, <i>Holothuria scabra</i> FROM NATURE AS PROBIOTICS CANDIDATE
9	Nebuchadnezzar Akbar	DNA BARCODING AND MORPHOMETRIC OF <i>RASTRELLIGER Spp</i> IN NORTH MALUKU SEA, INDONESIA
10	Kinanthi Sekar Nareswari	Effect of Addition of Starry Triggerfish ( <i>Abalistes stellaris</i> ) Skin Gelatin On The Characteristics of Jelly Candy
11	Dr. Ir. Ervia Yudiati, M.Sc	Spirulina Water Extract and LAB ( <i>Lactobacillus bulgaricus</i> & <i>Streptococcus thermophilus</i> ) Secretion as Immunostimulants in Gnotobiotic Artemia Challenge Tests Against Pathogenic <i>Vibrio parahaemolyticus</i> , <i>V. vulnificus</i> and <i>V. harveyi</i>
12	Putut Har Riyadi	Potential of <i>Spirulina platensis</i> Extract as Nutraceutical Using Computational Analysis (ADMET)
13	Geby Namira Mediarman	Potensi Serbuk CaO Hasil Kalsinasi Kerang Hijau ( <i>Perna viridis</i> ), Kerang Samping ( <i>Placuna placenta</i> ) Dan Kerang Darah ( <i>Anadara granosa</i> ) sebagai Antibakteri
14	Juharni (tim)	Antibacterial Activity Of Green Betel Leave Extract (Piper Betle Line) Against Vaname Shrimp ( <i>Litopenaeus vannamei</i> )
15	Retno Ayu Kurniasih	The influence of extraction period on the characteristics of acid soluble collagen from sea catfish ( <i>Arius thalassinus</i> ) swim bladder
16	Alfrista Natasya	KARAKTERISTIK DAN POTENSI BIOAKTIF SEDUHAN SARGASSUM sp. DENGAN PENAMBAHAN DAUN SALAM ( <i>Syzygium polyanthum</i> )

No Urut Presentasi	Nama	Judul Artikel
17	Bunga Rante Tampangallo	Histopathology of gills, liver, kidneys, and intestines milkfish that suffered mass death in Pangkep Regency, South Sulawesi Indonesia
18	Dr. Agus Setyawan, S.Pi., MP.	Non-Specific Immune Response of Pacific White Shrimp <i>Litopenaeus vannamei</i> by Supplementation of Sodium Alginate of <i>Sargassum</i> collected from Lampung Waters

### 3. OSEANOGRAPHY

No Urut Presentasi	Nama	Judul Artikel
1	Dendy Mahabrora	Calculation Of Design Brackish Water Reverse Osmosis and Its Financial Analysis at Pamekasan Coastal Area
2	Hanny Meirinawati	Spatial Distribution of Nutrient in Maumere Bay, East Nusa Tenggara
3	Mochamad Riza Iskandar	Marine Heatwaves in the South of Java Island
4	Akhmad Tri Prasetyo	Hydrodynamical Model During East Season at Gosong Coastal West Borneo as Candidate Location of Nuclear Power Plant in Indonesia
5	Adi Wijaya	Upwelling Variability in Bali Strait Using Remote Sensing data
6	Deddy Irawan Permana Putra	Distribution of some natural and anthropogenic radionuclides in the sediments and seawater along the coastal areas of North Sulawesi
7	Yogi Priasetyono	Baseline Levels of Radionuclides Concentration in the Sea of Wakatobi and Kendari
8	Mohammad Ridwan Lessy	Ecological Characteristics of Mangroves and Coral Reefs at Central Weda Sub-District, North Maluku

No Urut Presentasi	Nama	Judul Artikel
9	Mohammad Nur Yahya	Radioactivity Level of Coastal Sediments and water across The Sangihe Island as The Outlying Islands of Indonesia
10	Wahyu Retno Prihatiningsih	Development Underwater Sensing System for In Situ Marine Radiation Monitoring
11	Asep Sandra Budiman	Physical Forces driving Chlorophyll-a Variability in the South Java Sea Shelf: A Spatio-Temporal Analysis
12	Juliana W. Tuahatu	PLUMBUN AND CADMIUM CONCENTRATIONS IN SEDIMENT OF MANGROVE ECOSYSTEM IN AMBON BAY
13	Halikuddin Umasangaji	Mini-Review The Characteristics of Upwelling in the Several Coastal Area in the World
14	Luky Sembel	Seasonal Variations of Water Quality at Doreri Gulf, Manokwari, West Papua
15	Gunawan Abidin	Effect of WAF crude oil exposure to fertilization and larva development of the Black scar Oyster <i>Crasostrea iredalei</i>
16	Dr. Najamuddin	Surface Currents Modeling in a Tropical Estuary, Indonesia
17	Murdahayu Makmur	Radiocesium distribution in the sedimentand surface seawater in the South Java Sea, Indonesia

#### 4. CONSERVATION

No Urut Presentasi	Nama	Judul Artikel
1	Gunawan A. Tauda	REAFIRMATION OF ISLAND STATE PRINCIPLES THROUGH THE ESTABLISHMENT OF ISLAND REGIONAL LAWS IN INDONESIA Reafirmasi Prinsip Negara Kepulauan melalui Pembentukan Undang-Undang Daerah Kepulauan Di Indonesia
2	Tri Djoko Lelono	The length-weight relationship, and clasper maturity level of spottail ( <i>Selachimorpha</i> ) caught in Prigi waters, Trenggalek, East Java
3	Yunus Pajanja Paulangan	Social-Ecological System in Depapre Bay Area of Jayapura Papua Indonesia
4	Mirna Dwirastina	Siam Sepat Fish Community ( <i>Trichopodus pectoralis Regan, 1910</i> ) in Semayang Lake, East Kalimantan
5	Herllinah	The effect of herbal extract injection on the success of pre-mating molt and mating of immature female mud crab ( <i>Scylla tranquebarica</i> ) reared individually separated from male
6	Herllinah	Effect of water salinity on survival and osmotic level of larval (zoea stage) of mud crab <i>scylla tranqueabrica</i>
7	Ahmad Muzaki	THE DEVELOPMENT OF THE REPRODUCTIVE ORGANS OF THE HYBRID GROUPER CANTIK ( <i>Epinephelus fuscoguttatus</i> x <i>E. polyphkadion</i> )
8	Rustam E. Paembonan	AN ANALYSIS OF HARD CORAL SPREADS CONDITION ON CORAL REEF ECOSYSTEM IN TERNATE ISLANDS WATERS
9	Chairun Annisa Aryanti	The Effect of PLTU Operations on Food Transfer <sup>210</sup> Po in Coastal Ecosystem.
10	Heny Suseno	STUDY OF RISK RADIATION ON MARINE ECOSYSTEM COMPONENTS IN INDONESIA 2013 - 2019
11	Umi Chodrijah	Population Parameter, Size distribution and Sex Ratio of The Blue Shark ( <i>Prionace glauca</i> Linnaeus, 1758) Caught in The Southern of Nusa Tenggara
12	MA'RUF KASIM	The Role Of Local Communities In Developing Potential Areas For Marine Tourism
13	Singgih Afifa Putra	Common morphological characters of subtidal sponge (Porifera: Demospongiae) as reference for biodiversity assessments
14	Samliok Ndobe	First record of <i>Stiphodon surrufus</i> in Sulawesi highlights need for amphidromous fish exploration and conservation

No Urut Presentasi	Nama	Judul Artikel
15	Abigail Mary Moore	Two decades of Reef Check survey data (1997-2017) highlight need for effective tridacnid clam conservation in Indonesia
16	Emma Suryati	ACCLIMATIZATION OF KAPPAPHYCUS ALVAREZII SEAWEED TRANSFORMATION OF GEN LYSOZYME IN CULTURE FLASK, AS WELL AS MAINTENANCE ON FLOATING NET CAGES IN COASTAL WATERS OF PANGKEP REGENCY
17	Abdullah Rasyid	FREE RADICAL SCAVENGING ACTIVITY OF FIVE SELECTED SEA CUCUMBERS COLLECTED FROM LAMPUNG WATERS, INDONESIA
18	Suryani	BIOMORPHOMETRY OF COCONUT CRAB ( <i>Birgus latro</i> ) IN LAIGOMA ISLAND NORT MOLUCCAS

## 5. SUSTAINABLE FISHERIES

No Urut Presentasi	Nama	Judul Artikel
1	Umar Tangke	Population Dynamics of Eastern Little Tuna ( <i>Euthynnus affinis</i> ) in Ternate Waters
2	Gatut Bintoro	GROWTH PATTERNS OF SKIPJACK TUNA ( <i>Katsuwonus pelamis</i> , <i>Linnaeus 1758</i> ) CAUGHT BY TROLL LINE IN PRIGI WATERS, TRENGGALEK EAST JAVA
3	Andina Ramadhani Putri Pane	The fishing season and the exploitation status of mud crab ( <i>Scylla serrata</i> ) in Asahan Sea, North Sumatera, Indonesia
4	Tridjoko	Maintenance and spawning on yellowfin tuna broodstock reared in floating cage
5	M. Arif Zainul Fuad, S.Kel. M.Sc.	Evaluation of Good Manufacturing Practices (GMPs) in Traditional Fish Cracker Industries in Gresik, East Java, Indonesia
6	Hasbi Assidiq	The Role of Fishery Supervisors and Community Participation to Ensure the Sustainable Fisheries in Indonesia Exclusive Economic Zone
7	Danu Sudrajat	THE ABUNDANCE OF CORAL FISH IN Squid Attractor PVC Pipe Material BASED ON OBSERVATION DAY

8	Rakhmad Armus	The Comparison of Dimethyl Sulfide Concentrations from the abundance of Plankton in the Dry Season and Rainy Season From Two Nutrient Sources of Tallo Freshwater Runoff and Pangkep River
9	Bayu Nugraha	Management of sustainable fisheries and utilization status of red snapper ( <i>lutjanus spp.</i> ) using handline landed in archipelagic fishing port of brondong
10	Siti Barora Sinay, SH.MH	POLITICS LAW PROTECTION OF INDIGENOUS PEOPLES OF THE ARCHIPELAGIC PROVINCE IN MANAGEMENT OF COASTAL AREAS AND SMALL ISLANDS
11	Lukman Daris (Khairunnisa)	ANALYSIS OF THE ROLE OF WOMEN ON THE LEVEL OF HOUSEHOLD WELFARE OF SEAWEED CULTIVATORS IN JENEPONTO REGENCY, INDONESIA
12	Omega Raya Simarangkir	STUDY ON SUITABILITY OF DERAWAN ISLAND AS MARINE TOURISM DESTINATION TOWARDS DEVELOPMENT OF SUSTAINABLE TOURISM IN THE NEW CAPITAL CITY CANDIDATE OF INDONESIA
13	Nurul Auliyah	BIOECONOMIC ANALYSIS OF SKIPJACK TUNA FISHERIES IN NORTH GORONTALO REGENCY, INDONESIA
14	Ridwan (Rita Hardianti Aris)	ANALISIS PENGEMBANGAN JARINGAN JALAN PESISIR RAMAH LINGKUNGAN KAWASAN MINAPOLITAN (STUDI KASUS KELURAHAN UNTIA) MENUJU NEW PORT MAKASSAR
15	Agus Arifin Sentosa	Length-weight relationship of <i>Atelomycterus marmoratus</i> (Bennett, 1830) in southern Lombok Island waters
16	Sahabuddin	UTILIZATION OF ABANDONED LAND FOR RICE FIELD AND TIGER SHRIMP CULTIVATION
17	Rieny Sulistijowati (Lukman Mile)	Acceptability tilapia fish jerky: an application of the many-facets Rasch model
18	Laras Rianingsih	THE EFFECT OF SUCROSE ADDITION ON THE SENSORY QUALITY OF "TERASI" AN INDONESIAN SHRIMP PASTE

## Abstract Collection List

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**THE ABUNDANCE OF CORAL FISH IN SQUID ATTRACTOR PVC PIPE MATERIAL BASED ON OBSERVATION DAY**

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**ABSTRACT**

*Squid attractors that have provided benefits to the fisheries sector, but technology engineering needs to be done. The benefits provided can last a long time and provide a more significant influence on the fisheries sector. The purpose of this study is the attractor function squid made of PVC pipe as an artificial reef and to determine the abundance of reef based on the day of observation and determine the abundance of reef fish on squid attractor at every time of observation. Squid attractor made by PVC pipe material were used, with cover on the top and both sides of the right and left. Methods of data collection of fish that are in the attractor squid using visual censuses (Visual Census Method) using Underwater Cam "SENU", which is stored in the Digital Video Recorder (DVR). The individuals observed were those inside and around the squid attractors in each hour for fourday, with the outermost distance observed from the squid attractors around 50 cm. Squid Atractors has the value of diversity index ( $H'$ ) including moderate to high diversity, the index value  $H'$  from 2.8700 to 3.1961. The diversity index value ( $E$ ) shows a stable community with an  $E$  index value of 0.7195 - 0.8417. Furthermore, the dominance index value ( $C$ ) includes low dominance with the  $C$  index value 0.3929 - 0.4288. Average in every hour the number of species around the squid attractor is 297 from 24 families and the largest number of families is from the Lutjanidae family as manyas 104 fishs.*

**KEYWORDS:** *artificial reef, reefs fish*