

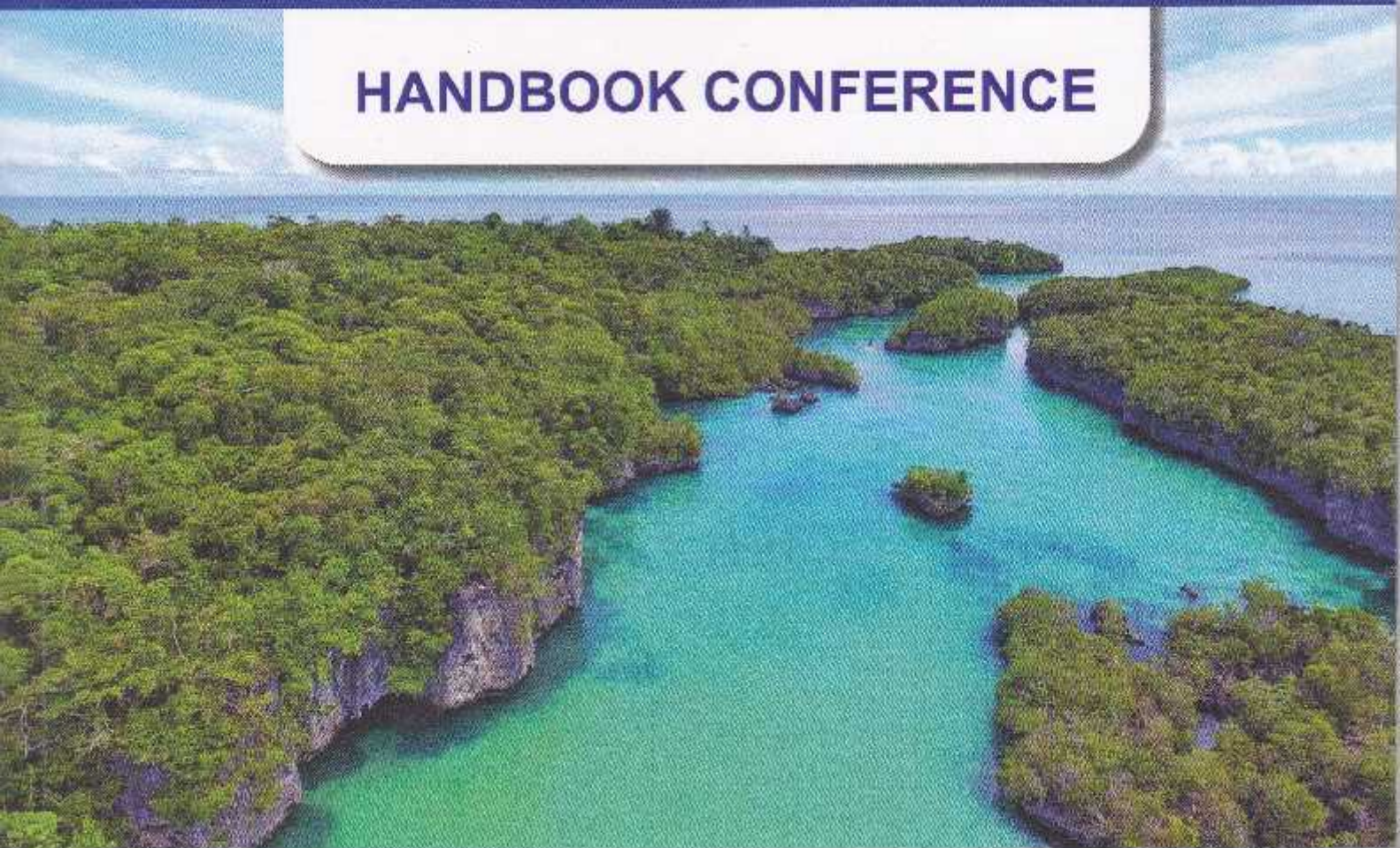


# The 3<sup>rd</sup> INTERNATIONAL CONFERENCE ON APPLIED MARINE SCIENCE AND FISHERIES TECHNOLOGY (MSFT)

"Marine Resources for a Sustainable Future :  
Global and Local Challenges"

October 10-12, 2019  
Grand Villa Hotel, Langgur- Kei Islands,  
Southeast Maluku, Indonesia

## HANDBOOK CONFERENCE



SOUTHEAST MALUKU  
DISTRICT GOVERNMENT



TUAL CITY  
DISTRICT GOVERNMENT



SOUTHERN CROSS  
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**IOP** Conference Series  
Earth and Environmental Science





The 3<sup>rd</sup> INTERNATIONAL CONFERENCE  
ON APPLIED MARINE SCIENCE AND  
FISHERIES TECHNOLOGY (MSFT)



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Welcome,

Dear colleagues

On behalf of the organizing committee of the third MSFT International Conference, and the Tual State Fisheries Polytechnic, we are happy to express our gratitude and appreciation for your attendance at the third MSFT International Conference held in Langgur, Southeast Maluku, Indonesia from 10 to 12 October 2019.

The conference was initiated as a platform to exchange information about the latest research results in the field of applied marine science and fisheries technology. Around 50 National and International speakers from Australia, Germany, France, Brazil and Indonesia were involved in this conference.

We hope that there will be a meaningful contribution to the concept of developing the marine and fisheries resource economy of small islands in a sustainable manner, while enjoying an academic holiday in the Kei Islands.

Sincerely,

Eugenius Alfred Renjaan  
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Jusron Ali Rahajaan  
Director of Tual State Fisheries Polytechnic





Program The 3<sup>rd</sup> International Conference on  
APPLIED MARINE SCIENCE AND FISHERIES TECHNOLOGIES (MSFT) 2019

Conference day 1 – October 10, 2019		Venue
Time	Activities	
07.30 am	Registration Opens	Grand Vilia Hotel
09.00 am	Opening Remarks and Declaration of zero plastic waste	Grand Vilia Hotel
09.40 am	Coffee Break	Grand Vilia Hotel
10.00 am	Keynote Presentation Invited Talk–Prof. Stephen D. A. Smith	Grand Vilia Hotel
10.15 am	Invited Talk–Prof. Dieter Piepenburg	Grand Vilia Hotel
10.30 am	Invited Talk –Prof. Amanda Rachel-Brushett	Grand Vilia Hotel
10.45 am	Invited Talk – Prof. Akamine Jun	Grand Vilia Hotel
11.00 am	Invited Talk - Dr. rer. nat. Gino Limmon M.Sc	Grand Vilia Hotel
11.15 am	<i>Changeover and Lunch</i>	Grand Vilia Hotel
<b>Plenary Session – Grand Vilia Hotel</b>		
Time	Activities	
01.00 pm – 02.15 pm	Marine Pollution and others (Panel A)	Grand Vilia Hotel – Room A
02.15pm – 02.30 pm	Marine Culture (for Food and the Aquarium Trade) and others	Grand Vilia Hotel – Room A
01.00pm – 02.15 pm	Marine Food Processing and others	Grand Vilia Hotel – Room B
02.15pm – 03.15 pm	Marine Biotechnology	Grand Vilia Hotel – Room B
01.00pm – 02.30 pm	Marine Living Resources Exploration and others (Part I)	Grand Vilia Hotel – Room C
03.00 pm	Closed Day 1 proceedings	



**Program The 3<sup>rd</sup> International Conference on  
APPLIED MARINE SCIENCE AND FISHERIES TECHNOLOGIES (MSFT) 2019**

Conference day 2 – October 11, 2019		Venue
Time	Activities	
08.00 am	Registration Opens	Grand Vilia Hotel
09.30 am	Coffee Break	Grand Vilia Hotel
09.45 am	Keynote Presentations Invited Talk- Prof. Dr. Sergei Androfovuet	Grand Vilia Hotel
10.00 am	Invited Talk – A/Prof. Christian Sander	Grand Vilia Hotel
10.15 am	Invited Talk – Dr. Ir. Mohammad Mukhlis Kamal, M.Sc.	Grand Vilia Hotel
10.30 am	Invited Talk – Prof Kevin Markwell	Grand Vilia Hotel
10.45 am	Changeover, Sholat and Lunch	Grand Vilia Hotel
Plenary Session – Grand Vilia Hotel		
Time	Activities	
01.30 pm – 03.00 pm	Marine Living Resources Exploration and others (Part II)	Grand Vilia Hotel – Room A
01.30pm – 03.00 pm	Blue Economy and others	Grand Vilia Hotel – Room B
01.30pm – 02.30 pm	Marine Ecotourism	Grand Vilia Hotel – Room C
02.30 pm – 03.00 pm	Oceanography and Marine Technology & others	Grand Vilia Hotel Room C
03.00pm	Closed Day 2 proceedings	
05.00pm	Closing Ceremony	Grand Vilia Hotel



The 3<sup>rd</sup> INTERNATIONAL CONFERENCE  
ON APPLIED MARINE SCIENCE AND  
FISHERIES TECHNOLOGY (MSFT)



Day 1 - October 10, 2019

Scope : Marine Pollution and Others - Panel A

Venue : Grand Vilia Hotel- Room A

TIME	Paper Title	Affiliation
01.00pm – 02.15pm	Analytical processes for determining mercury and methylmercury in seafood. by Don Brushett <sup>1</sup>	Environmental Analysis Laboratory, Southern Cross University, Lismore, NSW, 2480
	The Level of Lead (Pb) in Sea Water around Bena Port Bali by Electrochemical Method. by Irdhawati <sup>1</sup> , Finny Sahara <sup>1</sup> , I Wayan Hermawan <sup>1</sup>	<sup>1</sup> Department of Chemistry, Faculty of Mathematic and Natural Sciences, Udayana University, Kampus Bukit Jimbaran Bali 80361 Indonesia. Corresponding author: : irdhawati@unud.ac.id
	Distribution of marine debris in response to wave, beach orientation, and beach geomorphology on the island of Dullah, kei archipelago, Indonesia. by Eugenius Alfred Renjaan <sup>1</sup> , Dortje Theodora Silubun <sup>1</sup> , Irwan Latar <sup>1</sup> , Marvin Makailipessy <sup>1</sup>	<sup>1</sup> Hydro-Oceanography Laboratory, Tual State Fisheries Polytechnic Jalan Raya Laggur - Sathean km 6, Southeast Maluku Corresponding author: earenjaan@polikant.ac.id
	Investigation of Mercury Residual In Dried Anchovy From Buru Island. by Imelda Krisanta Euda Savitri <sup>1</sup> , Bernita Silaban <sup>1</sup> and R.B.D. Sormin <sup>1</sup>	<sup>1</sup> Department of Fish Processing Technology, Fisheries Faculty and Marine Science, Pattimura University, Ambon. Corresponding author : endahsavitri@gmail.com
	Assessment of sediment quality in the waters around of ternate city, North of Maluku, Indonesia based on an index analysis approach. by Edward <sup>1</sup> , Agus Kusnadi <sup>1</sup> , Teddy Triandiza <sup>1</sup>	<sup>1</sup> Research Center Oceanography-Indonesian Institute of Science, Jl. Pasir Putih 1, Ancol Timur, Jakarta 14330. Corresponding author: teddy.triandiza27@gmail.com

Day 1 – October 10, 2019

Scope : Marine culture (for food and aquarium trade) and others - Panel B

Venue : Grand Vilia Hotel – Room A

TIME	Paper Title	Affiliation
02.15pm – 02.30pm	Potential of Seaweed <i>Gracilaria</i> sp as inhibitors of <i>Escherichia coli</i> , <i>Clostridium perfringens</i> and <i>Staphylococcus aureus</i> . by Marni Kaimudin <sup>1</sup> dan Komers R.W. Manduspessy <sup>1</sup>	<sup>1</sup> Ambon Industrial Baristand Corresponding author: marnikaimudin72@gmail.com



Day 1 – October 10, 2019

Scope : Marine Food Processing – Panel A

Venue : Grand Villa Hotel – Room B

TIME	Paper Title	Affiliation
01.00pm – 02.15pm	Preliminary study of Cold Supply Chain logistic of Small and outer Island. by Grasioano Warakano Lailessa <sup>1</sup>	<sup>1</sup> Akademi Maritim Maluku, Jl dr Kayadoc, RT.05/RW.05, Kudamati Ambon, 97116. Corresponding author: grasioanolailessa@gmail.com
	The effect of salt concentration on the quality of boiled Seed mackerel ( <i>Decapterus</i> sp) using the "presto" and steamed methods. by Maria Kristina Ohoiwutun <sup>1</sup> , Bruri Berel Tumiwa <sup>1</sup> , Saul Abraham Serpara <sup>1</sup> , Selfia Martha Nara <sup>1</sup> , Mirna Zena Tuarita <sup>1</sup>	<sup>1</sup> Program Studi Manajemen Rekayasa Pengolahan Hasil Perikanan, Politeknik Perikanan Negeri Tual, Jalan Raya Langgur-Sathean km.6, Langgur, Southeast Maluku. Corresponding author:mirnazt@polikant.ac.id
	The Potential of Seaweed <i>Caulerpa</i> sp as Functional Food. by Alfonsina Martha Tapotubun <sup>1*</sup> , Theodora E.A.A.Matrutty <sup>1</sup> , Johan Riry <sup>2</sup> , Elizabeth Juleny Tapotubun <sup>3</sup> , Welly Angela Riry <sup>4</sup>	<sup>1</sup> Study Program of Fisheries Product Technology, Faculty of Fisheries and Marine Science, Pattimura University, Jl. Mr. Chr. Soplanit Poka Ambon 97233, Indonesia. <sup>2</sup> Study Program of Agro ecotechnology, Faculty of Agriculture, Pattimura University Jl. Ir.M.Putuhena Poka – Ambon 97233, Indonesia <sup>3</sup> Study Program of Fisheries Product Technology, Tual State Fisheries Polytechnic, Jln. Langgur-Sathean km 6, Langgur - Maluku Tenggara, Indonesia <sup>4</sup> Study Program of Law, Faculty of Law, Pattimura University Jl. Ir.M.Putuhena Poka – Ambon 97233, Indonesia Corresponding author: am.tapotubun@gmail.com
	Effect of Fuel Types on Quality of Smoke Seed mackerel ( <i>Decapterus russelli</i> ). by Maria Kristina Ohoiwutun <sup>1</sup> , Bruri Berel Tumiwa <sup>1</sup> ,Saul Abraham Serpara <sup>1</sup> , Selfia Martha Nara <sup>1</sup> , Mirna Zena Tuarita <sup>1*</sup>	<sup>1</sup> Program Studi Manajemen Rekayasa Pengolahan Hasil Perikanan, Politeknik Perikanan Negeri Tual, Jalan Raya Langgur-Sathean Km.6, Southeast Maluku, 97611. Corresponding author :mirnazt@polikant.ac.id
	Quality of Crispy "Enbal" Local Food Fertilized by Seaweed. by Ismael Marasabessy <sup>1</sup> , Fien Sudirjo <sup>1</sup>	<sup>1</sup> Department of Fisheries Product Technology of the Tual State Fisheries Polytechnic Corresponding author: ismael_mabes@yahoo.com



Day 1 – October 10, 2019

Scope : Marine Biotechnology– Panel A

Venue : Grand Vilia Hotel – Room B

TIME	Paper Tittle	Affiliation
02.15pm – 03.15pm	Antioxidant activity of bitter leaves ( <i>Vernonia amygdalina</i> ) extract coated by nano-chitosan derived from parrot fish ( <i>Scarus</i> sp) scales. by Inneke F. M. Rumengan <sup>1</sup> , Natalie D. Rumampuk <sup>1</sup> , Lucia C. Mandey <sup>2</sup> , Grace D. Kandou <sup>3</sup> , Aldian H. Luntungan <sup>3</sup>	<sup>1</sup> Faculty of Fisheries and Marine Science, Sam Ratulangi University <sup>2</sup> Faculty of Agriculture, Sam Ratulangi University <sup>3</sup> Faculty of Public Health, Sam Ratulangi University Corresponding author: innekerumengan@unsrat.ac.id
	Fish Disease of <i>Viral Nervous Necrosis</i> (VNN) at eggs and Juvenile Red grouper spotted ( <i>Cromileptes altivelis</i> ). by Dandy Apriadi <sup>1</sup> , N.V. Huliselan <sup>1</sup> , Juliaeta A.B Mantesah <sup>1</sup>	<sup>1</sup> Department of Marine Sciences, Post-graduate program, Pattimura University Corresponding author: dandyapriadi@gmail.com
	The existence of decomposing hydrocarbon contaminant bacteria on Ambon bay water. by Juliaeta Mamesah <sup>1</sup> , Novianti Tuhumury <sup>1</sup> , Rahman <sup>1</sup>	<sup>1</sup> Water Resources Management Department, Faculty of Fishery and Marine Science Pattimura University Corresponding author: jellymamesah@gmail.com
	Cytotoxicity of methanol extracts of <i>Prachloron didemni</i> originated from ascidians <i>Lissoclinum patella</i> and <i>Didemnum molle</i> collected from Manado Bay, North Sulawesi. by Inneke F. M. Rumengan <sup>1</sup> , Riny Hefriani Modaso <sup>1</sup> , Rosita Lintangand <sup>1</sup> , Nathalie D. Rumampuk <sup>1</sup>	<sup>1</sup> Faculty of Fisheries and Marine Science, Sam Ratulangi University, Manado Corresponding author: innekerumengan@unsrat.ac.id





Day 1 – October 10, 2019

Scope : Marine living Resources Exploration and Others – Part 1

Venue : Grand Villa Hotel – Room C

TIME	Paper Title	Affiliation
01.00pm – 02.30pm	Identification and Classification of the types catch landed at Tual Fishing Port (PPN Tual). by Riyan Maulana <sup>1</sup> , Ismi Isti'annah <sup>2</sup>	<sup>1</sup> Tual Surveillance For Marine and Fisheries Resources Base Ministry of Marine and Fisheries Affairs <sup>2</sup> Tual State Fisheries Polytechnic Corresponding author: riyan.maulana@kcp.go.id
	Morphometric and Meristic Study of Small Eastern Tuna ( <i>Euthynnus affinis</i> ) landed at the fish market of Tual Municipality and Southeast Maluku Regency. by Ismi Isti'annah <sup>1</sup> , Riyan Maulana <sup>2</sup>	<sup>1</sup> Tual State Fisheries Polytechnic <sup>2</sup> Tual Surveillance For Marine and Fisheries Resources Base Ministry of Marine and Fisheries Affairs Corresponding author: istianah1705@gmail.com
	Reef fishes at waters of Kei Kecil Islands, Southeast Maluku Regency, Eastern Indonesia. by D Sahetapy <sup>1</sup> , A S W Retraubun <sup>2</sup> , J Alrahmans <sup>1,2</sup> and M M Makailipessy <sup>3</sup>	<sup>1</sup> Management of Marine Resource and Small Islands Post graduate Program, Pattimura University, Indonesia <sup>2</sup> Learning Center EAFM of Pattimura University, Indonesia <sup>3</sup> Tual State Fisheries Polytechnic, Indonesian Corresponding author: james.abrahamsz@fpik.unpatti.ac.id
	Level of Utilization of Fish Resources in The Indonesian Fisheries Management Area (IFMA) 718. by Gunarto Rizki Herlambang <sup>1</sup>	<sup>1</sup> Tual Maritime and Fisheries Resources Surveillance Base, Tual, Southeast Maluku, Indonesia. Corresponding author: gunarto86@gmail.com



TIME	Paper Title	Affiliation
	<p>Population Genetic Structure of Jerbung Shrimp (<i>Penaeus merguensis</i> de Man 1988) of Fisheries Management Area in the Southern Area of Indonesia Ocean. by Melfa Marini<sup>1,2</sup>, Ali Suman<sup>3</sup>, Achmad Farajallah<sup>4</sup>, Yusli Wardiatno<sup>5</sup></p>	<p><sup>1</sup>Research Institute for Inland Fisheries and Extension, Ministry of Marine Affairs and Fisheries, Gubernur H.A. Bastari Street No 08, Kel.Silaberanti, Kec. Seberang Ulu I, Palembang, South Sumatera, Indonesia, 082185531486, melfa_marini@yahoo.com <sup>2</sup>Inland Fisheries Resources Development and Management Department, 082185531486, melfa_marini@yahoo.com <sup>3</sup>Marine Fishery Research Institute, Ministry of Marine Affairs and Fisheries, 08127144882, allsuman_52@yahoo.com <sup>4</sup>Department of Biology, Faculty of Mathematics and Natural Sciences, Bogor Agricultural University, 08176512274, achamadfarajallah@gmail.com <sup>5</sup>Department of Aquatic Resources Management, Faculty of Fisheries and Marine Sciences, Bogor Agricultural University, 08128608966, wardiatno@gmail.com *Corresponding author:melfa_marini@yahoo.com</p>
	<p>Hard corals colonization on the artificial substrate in selat besar waters, putus- putus island, the district of south-east minahasa, north Sulawesi, Indonesia. by Laurentius F. X. Lalamentik<sup>1</sup>, Silvester B. Pratasik<sup>1</sup>, Rene Ch. Kepel<sup>1</sup>, Lawrence J.L. Lumingas<sup>1</sup>, N. W. J. Rembet<sup>1</sup></p>	<p><sup>1</sup>Faculty of Fisheries and Marine Science, Sam Ratulangi University, Jl. Kampus Babu, Manado- 95115, North Sulawesi Corresponding author: spjong07@yahoo.com</p>



Day 2 – October 11, 2019

Scope : Marine Living Resources Exploration and others – Part II

Venue : Grand Vilia Hotel – Room A

TIME	Paper Title	Affiliation
01.30pm – 03.00pm	Tuna Fisheries <i>Thunnus</i> sp Small Scale in Kci Islands, Moluccas Province. by Asri Sutanti <sup>1</sup> dan Rachman Saich <sup>1</sup>	<sup>1</sup> Fisheries Inspector in Based of Surveillance Marine and Fisheries Resources Corresponding author: asri.susanti@gmail.com
	Larval Recruitment Pattern In Ambon Bay. By JW. Mosse <sup>1</sup> , BG. Hutubessy <sup>1</sup> , C. Latuheru <sup>1</sup> , R. Tawari <sup>1</sup>	<sup>1</sup> Pattimura University Ambon-Indonesia; Corresponding author: bwmosse@yahoo.co.id
	Evaluation of traditional traps: towards ecosystem-based fisheries management. by BG. Hutubessy <sup>1</sup> , JW. Mosse <sup>1</sup> , Haruna <sup>1</sup> , T. Tuapetel <sup>1</sup>	<sup>1</sup> Pattimura University Ambon-Indonesia; Corresponding author: bwmosse@yahoo.co.id ; grace.hutubessy@yahoo.com
	Spatial distribution of spotted seahorse <i>Hippocampus kuda</i> from North Maluku waters, Indonesia. by Safar Dody <sup>1</sup> & Gino V. Limmon <sup>2,3</sup>	<sup>1</sup> Research Center for Oceanography, Indonesian Institute of Science <sup>2</sup> Maritime and Marine Science of Excellence, Pattimura University <sup>3</sup> Faculty of Fisheries and Marine Science, Pattimura University Corresponding author: gino.limmon@gmail.com
	Review: Study of artificial habitat as coral reef habitat restoration and alternative fishing grounds. by Tahapary J <sup>1</sup> , Simbolon D <sup>2</sup> , Zulkarnain <sup>2</sup> , Wiryawan Z <sup>1</sup>	<sup>1</sup> Student of Marine Fisheries Technology Study Program, Postgraduate Program IPB University <sup>2</sup> Lecturer in the Department of Fisheries Resource Utilization IPB University Corresponding Author: nonatahapary.polikant@gmail.com
	Horizontal Phytoplankton Distribution in Relation to the chemical parameters in the Inner Ambon Bay. by I. Kesaulya <sup>1</sup> and S. Paumahu. F <sup>1</sup>	<sup>1</sup> Marine Science Department, Fishery and Marine Science Faculty, Pattimura University Kampus Poka, Jl. Martha Alfers, Poka-97233, Ambon, Indonesia <sup>1</sup> Corresponding author: lrKesaulya@gmail.com
	Coastal Water Conditions of Manado Bay, North Sulawesi, Indonesia Silvester B. Pratasik <sup>1</sup> , Supriharyono <sup>2</sup> , H. Sambali <sup>1</sup> , L. Manoppo <sup>1</sup>	<sup>1</sup> Faculty of Fisheries, Sam Ratulangi University, Manado, Jl. Kampus Bahu Manado-95115, North Sulawesi, Indonesia; <sup>2</sup> Faculty of Fisheries and Marine Science, Diponegoro University, Jl. Prof. H. Suedarto, S.H.-Iembalang Semarang, Central Java, Indonesia 50275 Corresponding Author: Silvester B. Pratasik.spiong07@yahoo.com



Day 2 – October 11, 2019

Scope : Blue Economy and others- Panel B

Venue : Grand Villa Hotel - Room B

TIME	Paper Title	Affiliation
01.30pm – 03.00pm	Carbon content of the seagrass <i>Enhalus acoroides</i> and <i>Thalassia hemprichii</i> in Tanjung Tiram coastal waters, Poka, Ambon Island. by Ch F Tupan <sup>1</sup> and M. Wawo <sup>1</sup>	<sup>1</sup> Fishery and Marine Science Faculty, Pattimura University, Jl. Mr. Chr. Soplani, Kampus Uapatti, Poka, Ambon, Indonesia Corresponding author: lotjetupan@yahoo.com
	Pattern of Demersal Fish Resource Utilization and Socio-Economic of Fishermen in Kotania Bay Waters, Western part of Seram. by NV Hillselan <sup>1</sup> , D Sahetapy <sup>1</sup> , M Wawo <sup>1</sup> , MA Tuapatinaya <sup>1</sup>	<sup>1,2,3</sup> Fisheries and Marine Science Faculty, Pattimura University, Jln. Mr. Chr. Soplani, Poka, Ambon Corresponding author: nietch@yahoo.com
	Multi Stakeholders Analysis in connecting Small Scale Fishermen to modern market in Maluku by Yolanda MTN Apituley <sup>1</sup> , Imelda KE Savitri <sup>1</sup> , Dionisius Bawole <sup>1</sup> , Friesland Tuapetel <sup>1</sup>	Faculty of Fisheries and Marine Science – Pattimura University Jl. Mr. Chr. Soplani, Kampus Poka, Ambon 97233 Corresponding author: yolanda.apituley@fipk.unpatti.ac.id
	The blue economic in Maluku Province, Indonesia: where do we start? By Amin Nasrin Renur <sup>1</sup> , <sup>2,3</sup> Achmad Fahrudin, <sup>4</sup> Dadang Soihin, Tridoyo Kusumastanto <sup>3,5</sup>	<sup>1</sup> Doctoral Program of Tropical Ocean Economics, Department of Resources and Environmental Economics - FEM - IPB. <sup>2</sup> Department of Aquatic Resources Management FPIK – IPB. <sup>3</sup> Tropical Ocean Economics, Department of Resources and Environmental Economics - FEM – IPB. <sup>4</sup> Darma Persada University, <sup>5</sup> Center For Coastal and Marine Resources Studies (PKSPL). Corresponding author: aminnasrinrenur@gmail.com
	Sustainability and Risk Based Framework Analysis for sustainable management of mud crab <i>Scylla serrata</i> of Kotania Bay, Western Seram, Indonesia. By Johannes M.S. Tetelepta <sup>1</sup> , Jesaya A. Pattrikawa <sup>2</sup> , Y. Natan <sup>1,2</sup> and B. Pattisira <sup>1,2</sup>	<sup>1</sup> Faculty of Fisheries and Marine Science, Pattimura University, Indonesia <sup>2</sup> Maritime and Marine Science Center of Excellence, Pattimura University, Indonesia Corresponding author: jms.tetelepta@fipk.unpatti.ac.id
	Mangrove carbon stocks of different ages and sediments inside and outside the tidal creek of the 'Ngilngof' coast, Kei Islands, Indonesia. By Eugenius Alfred Renjaan <sup>1</sup> , Imelda Yafforan <sup>2</sup> , and Marvin Makailipessy <sup>2</sup>	<sup>1</sup> Hydro-Oceanography Laboratory, Tual State Fisheries Polytechnic Jalan Raya Langgur - Sathean km 6, Southeast Maluku Corresponding author: earenjaan@polikant.ac.id



Day 2 – October 11, 2019

Scope : Marine Ecotourism - Panel A

Venue : Grand Villa Hotel – Room C

TIME	Paper Title	Affiliation
01.30pm – 02.30pm	Estimation of the environmental carrying capacity for marine tourism in Wakatobi National Park. by Ahmad Bahur <sup>1</sup> and Sugianta <sup>2</sup>	<sup>1</sup> Fakultas Ilmu Kelautan dan Perikanan - Unhas, Makassar <sup>2</sup> WWF-Indonesia Correspondence author: amb227@yahoo.com
	Mangrove Ecotourism Development in Letyuan Village Southeast Maluku. by Meiksyana Reynold Renjaan <sup>1</sup> and Marselus Hungan <sup>1</sup>	<sup>1</sup> Tual State Fisheries Polytechnic, Langgur, Southeast Maluku, Indonesia Corresponding author: reynoldrenjaan@yahoo.com
	Land Suitability and Carrying Capacity of Ngurbloat Beach, Kei Islands, Indonesia. by Melissa Justine Renjaan <sup>1</sup> and Ida I Dewa Ayu Raka Susanty <sup>1</sup>	<sup>1</sup> Marine Agro Tourism Study Program, Tual State Fisheries Polytechnic Corresponding author: melissajr85@gmail.com
	The Development Strategy in Sustaining the marine Tourism in Banda District of Maluku Tengah Based on Economic Value. by Mintje Wawa <sup>1</sup> and Jelvhian Petra Lengkong <sup>2</sup>	<sup>1</sup> Lecture Faculty of Fisheries and Marine Resources, Pattimura University <sup>2</sup> Alumnus Faculty of Fisheries and Marine Resources, Pattimura University

Day 2 – October 11, 2019

Scope : Oceanography and marine technology and others - Panel A

Venue : Grand Villa Hotel - Room C

TIME	Paper Title	Affiliation
02.30pm – 03.00pm	Fishing Equipment Technical Efficiency for Fisheries Production in Banda Naira. by Ennis Wien Erliani <sup>1</sup> and Mulyadi Marto <sup>2</sup>	<sup>1</sup> Post Graduate Student in IPB University Corresponding author: Enniserliani@gmail.com <sup>2</sup> Marine and Fisheries Resources Surveillance Ambon Corresponding author: adhi09@yahoo.com
	Forecasting Fishing Areas in Kei Islands Based on Satellite Data. by Saragih, R.W <sup>1</sup> , D M A Manni <sup>1</sup> , and M Ryan <sup>2</sup>	<sup>1</sup> Meteorological, Climatological, and Geophysical Agency (BMKG), Indonesia Corresponding author: rino.saragih@bmtkg.go.id



for the marine tourism in Banda district in this case is from the ecologic sector with an ECM value is 450.094.848. This concludes that the ecological sustainability implies on the continuity of the social and economic sectors.

Keywords: marine tourism, Banda Districts, travel cost, valuation

### Coastal Water Conditions of Manado Bay, North Sulawesi, Indonesia

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#### Abstract

Coral reefs are a complex coastal ecosystem and possess important roles in supporting the early stages of marine organisms, such as fish, mollusk, and many other invertebrates, through providing various types of habitats and shelters. This study aims to know the condition of Manado Bay coastal waters with the reference to coral reef condition in Malalayang II waters, Manado, and Kalasey waters, Minahasa regency. This work was done to promote the conservation of branching coral species that support the availability of egg placement habitat of cuttlefish *Sepia latimanus*. Data were collected through SCUBA dives at 7 stations using Line Intercept Transect method at 3, 5, and 10 m depth. Results showed that the condition of Manado Bay waters, particularly Malalayang II, was sufficiently productive to support marine biota in the area. It is indicated with low to medium coral cover, low to medium coral diversity, and high coral evenness. Other biotic components of the coral reefs help also support the marine life in this area. These conditions reveal that Manado Bay waters can maintain the availability of coral reef habitats.

Keywords: SCUBA, LIT, percent cover, diversity, evenness.