LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah/Prosiding : Monitoring The Sea Surface Temperature and Total Suspended Matter Based on Cloud-Computing Platform of Google Earth Engine and Open-Source Software
Jumlah Penulis : 3 (Tiga)
Status Pengusul : ~~Penulis pertama~~/ penulis ke 2./~~penulis korespondensi~~ **
Penulis Karya Ilmiah : F Ramdani, **A Wirasatriya**, A R Jalil, Y O Andrawina
Identitas Karya Ilmiah :
a. Nama Proseding : IOP Coference Series: Earth and Environmental Science
b. No. ISSN/ISBN : 1755-1315
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d. Penerbit : IOP Publishing
e. DOI Prosiding (jika ada) : 10.1088/1755-1315/750/1/012041
f. Alamat Web Prosiding :
- Url Prosiding : https://iopscience.iop.org/issue/1755-1315/750/1
- Url Prosiding : https://iopscience.iop.org/article/10.1088/1755-1315/750/1/012041/pdf
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Kategori Publikasi Makalah (beri ✓pada kategori yang tepat) :
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[ ] *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai .....5)	**Nilai Maksimal *Prosiding* ..... 6)**		**Nilai Yang Diperoleh ..... 7)**
	Internasional [30]	**Nasional** [ ]	
a. Kelengkapan unsur isi Prosiding (10%)	3		2,4
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		6,3
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		6,5
d. Kelengkapan unsur dan kualitas penerbit (30%)	9		6,5
Total = (100%)	**30**		**21,7**

Catatan Penilaian Paper oleh Reviewer:
Author kurang hati2 dalam memberikan general statemen "The sea surface temperature and total suspended matter is important for fisheries industry to increase the opportunity to catch the fish". Di abstrak tidak ada key words, ukuran fond dalam satu Alinea ada yang berbeda. Hasil yang sudah ditampilkan kurang pembahasnnya. Nilai = 0,4/2 x 21,7 = **4,34**

Semarang,
Reviewer 1

Prof. Ir. Muslim, M.Sc., Ph.D
NIP. 196004041987031002
Unit Kerja : FPIK UNDIP

LEMBAR
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- [ ] *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai .....5)	**Nilai Maksimal *Prosiding* ..... 6)**		**Nilai Yang Diperoleh ..... 7)**
	Internasional [30]	**Nasional** [ ]	
a. Kelengkapan unsur isi Prosiding (10%)	3		3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		7
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		8
d. Kelengkapan unsur dan kualitas penerbit (30%)	9		9
Total = (100%)	**30**		**27**

Catatan Penilaian Paper oleh Reviewer:

a) Prosiding *IOP Conference Series: Earth and Environmental Science*, Volume 750, 6th International Conference on Tropical Coastal Region Eco-Development 2020 27-28 October 2020, Indonesia dinilai memiliki unsur unsur artikel ilmiah yang lengkap sesuai dengan kaidah jurnal ilmiah, terdiri dari Abstract, Introduction, Material and Methods, Results And Discussion, Conclusion, Acknowledgments, References

b) Ruang lingkup artikel ini sangat sesuai dengan bidang penulis yakni oceanografi. Pembahasan dinilai cukup baik, dimana penelitian ini menganalisis tentang total bahan tersuspensi dan informasi suhu permukaan laut di sekitar Laut Timor, Teluk Van Diemen, dan Teluk Beagle. dan didukung dengan 21 pustaka, dimana yang lebih dari 10 tahun ada 1 pustaka

c) Artikel ilmiah ini dinilai telah memberikan data dan informasi yang mencukupi Penelitian ini menggunakan data dari tiga lokasi di Australia Utara, dimana untuk data SST dan total suspended matter (TSM) di area penelitian diperoleh dari Google Earth Engine and Open-Source Software. Data TSM yang divalidasi dengan Sentinel-3 Ocean and Land Color Instrument Earth Observation Full Resolution (OLCI EFR).

d) Prosiding *IOP Conference Series: Earth and Environmental Science* diterbitkan oleh IOP Publishing merupakan penerbit yang sudah lama menerbitkan prosiding seminar internasional yang terindeks Scopus. Penerbit ini dinilai memiliki unsur yang lengkap, dengan kualitas penerbitan dinilai baik. 0,4/2 x 27 = **5,4**

Semarang, 30 Mei 2022
Reviewer 2

Prof. Dr. Ir. Ambariyanto, M.Sc
NIP. 196104131988031002
Unit : FPIK Undip

IOP Conference Series: Earth and Environmental Science • *Open Access* • Volume 750, Issue 1 • 12 May 2021 • Article number 012041 • 6th International Conference on Tropical Coastal Region Eco-Development 2020, ICTCRED 2020 • Semarang, Virtual • 27 October 2020through 28 October 2020 • Code 169095

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Conference Proceedings

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Monitoring the Sea Surface Temperature and Total Suspended Matter Based on Cloud-Computing Platform of Google Earth Engine and Open-Source Software

Ramdani F.[a] ; Wirasatriya A.[b]; Jalil A.R.[c]
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[b] Department of Oceanography, Faculty of Fisheries and Marine Science, Universitas Diponegoro, Tembalang Campus, St. Prof. Soedarto S.H., Semarang, Central Java, Indonesia
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Abstract

The sea surface temperature and total suspended matter is important for fisheries industry to increase the opportunity to catch the fish. Traditional methods to monitor this phenomenon is by using the remote sensing techniques. However, conventional remote sensing methods is need higher computer specifications as well as larger space of hard disk drive and commercial software to process the datasets. The availability of cloud-computing platform such as Google Earth Engine that available free for public will provide benefit for researcher to increase the efficiency and effectivity of large-scale imageries processing. This study proposed the sate-of-the-art cloud-computing platform of GEE to monitor and map the sea surface temperature and total suspended matter for long periods of analysis of Timor Sea , Van Diemen Gulf, and Beagle Gulf, Australia. In total there more than 600 images of Landsat 8 Collection 1 Tier 1 calibrated top-of-atmosphere (TOA) reflectance is used and obtained within the GEE platform . The Radiative transfer equation (RTE) method is used to extract the surface temperature . To extract the total suspended matter , the Sentinel-3 Ocean and Land Color Instrument Earth Observation Full Resolution (OLCI EFR) is used. The Case-2 Regional CoastColour (C2RCC) processor within the SentiNel Application Platform (SNAP) software is used. The result show that the GEE platform is successfully captured the dynamic sea surface temperature as well as the total suspended matter with high efficiency in term of time and hard disk drive consumption.

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Preface

PREFACE

On behalf of the Organizing Committee, I would like to extend our warmest regards to all participants of the 6th International Conference on Tropical and Coastal Region Eco-Development (ICTCRED) 2020. This annual conference was held on 27-28 October 2020, organized by the Faculty of Fisheries and Marine Science, Universitas Diponegoro, Semarang, Central Java, Indonesia.

We brought an essential global topic the ***Sustainable Development in Coastal Area.*** The conference aims to provide a forum to exchange ideas and their current achievements for researchers, academicians, professionals, and industries to expose and exchange innovative ideas, methods, and experiences in the areas related to tropical life sciences and coastal development.

We have accepted 107 abstracts for oral and poster presentations coming from different universities and research centers from Indonesia, Japan, USA, UK, Netherlands, South Korea, Belgium, and Malaysia, which were consisted of 15 big interests. Besides, we have cordially invited ten highly respected researchers as keynote speakers with different fields to share their knowledge and expertise. We are grateful for each one of them for setting aside their valuable time to participate in this conference.

The 6th ICTCRED 2020 was firstly planned to be held offline in Semarang, Indonesia. However due to the pandemic COVID-19 situation, we had to adapt the new normal regulation which restrict the face to face meeting to avoid the massive virus transmission. Therefore, the 6th ICTCRED 2020 was held in virtual format using Zoom application. This event could not be postponed since it has become the annual event of the Faculty of Fisheries and Marine Science, Universitas Diponegoro. Despite virtual event, we guarantee that the 6th ICTCRED 2020 was held professionally, following the rule of scientific conference. Starting with the plenary session with the presentation from the keynote speakers, the participants have their presentation in the panel sessions with 10 minute presentation and 10 minute discussion. The presentation of participant was in video recording format to avoid the technical problems during the presentation. However, the presence of participant was an obligation to answer the questions emerging during discussion session. The recording of the plenary session in the first and second day of the 6th ICTCRED 2020 can be seen on https://www.youtube.com/watch?v=j7uZx6ebRQg&t=3094s and https://www.youtube.com/watch?v=UQqZrAsvEJg&t=2990s, respectively.

The committee extent very kind thank all participants for the success of the conference. They were Rector of Universitas Diponegoro, Dean of Faculty of Fisheries and Marine Science, the keynote speakers. We also would like to acknowledge the Institute of Physics (IOP) for the collaboration in publishing the conference proceedings, our sponsors the Universitas Diponegoro, COREM Undip, ICZM Center Undip, WCU Undip, ISOI, NIOZ, NWO, Tufts University, and TU Delft.

Finally, we proudly present 62 selected papers in IOP Conference Series: Earth and Environmental Science. We do hope that the 6th ICTCRED 2020 event brings a fruitful knowledge and be a memorable event not only from the scientific perspective but also in the joy of meeting with other scientists for mutual collaboration.

ICTCRED

The 6th International Conference on Tropical and Coastal Region Eco-Development

2020

"Sustainable Development in Coastal Area"

27 - 28 October 2020

ONLINE SEMINAR

CALL FOR PAPER

It is a pleasure to invite you to the 6th ICTCRED which will be held in Semarang, 27 - 28 October 2020. The 6th ICTCRED is organized by The Faculty of Fisheries and Marine Science, Diponegoro University, Indonesia. The ICTCRED is an annual conference intended to promote and disseminate scientific findings within the scope of Tropical and Coastal Region Eco Development. The 5th ICTCRED was held succesfully last year in Semarang and the selected articles was published by IOP Proceeding, Biodiversitas,Bioflux, Research Journal of Chemistry and Environment WRA(World Researchers Associations) and Disaster Advance WRA (World Researchers Associations).

REGISTRATION

We invite the submission of abstacts for oral or poster presentation. All submitted abstarcts will be peer reviewed and authors of the accepted abstracts are encouraged to submit a full paper.

Category	Early Bird	Regular
Presenter		
General Participant	Rp 1.500.000	Rp 1.750.000
Undergraduate Student	Rp 1.000.000	Rp 1.250.000
Overseas Participant	$ 150	$ 200
Non Presenter	Rp 100.000	Rp 150.000

Second Paper : Rp. 1.500.000

PUBLICATION

The article presented at ICTCRED 2020 will be published in the proceedings of the Institute of Physics (IOP) . Journal at AACL (Aquaculture, Aquarium, Conservation & Legislation) Bioflux*, Biodiversitas*, Squalen Bulletin of Marine and Fisheries Post Harvest and Biotechnology*, World Researches Association (Disaster Advances)*, World Researches Association (Research Journal of Chemistry and Environment)*, World Researches Association (Research Journal of Biotechnology)*, International Journal of Environmental Research and Public Health (Special Issue at Climate Change and Health Section)*,or National accredited (Sinta) Journals: Buletin Oseanografi Marina*, Jurnal Kelautan Nasional*, Jurnal Kelautan Tropis*, and Saintek Perikanan: Indonesian Journal of Fisheries Science and Technology)*

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South Korea

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Malaysia

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USA

Prof. Hwa Chien
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Prof. Elena N. Naumova
Tufts University
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Prof. Sucharita Gopal
Boston University
USA

Prof. Magaly Koch
Boston University
USA

TIMELINE

Non Presenter Registration	: 15 June - 12 October 2020
Abstract Submission	: 15 June - 28 August 2020
Acceptance Notification	: 25 September 2020
Full Text and Poster Submission	: 27 October 2020
Conference	: 27 - 28 October 2020
Early Bird	: 25 Sept - 5 October 2020
Normal Rate	: 5 - 12 October 2020

The conference will cover main theme Sustainable Development in Coastal Area includes the following topics:

- Aquacultures
- Fisheries
- Marine Natural Product
- Biotechnology
- Coastal Engineering
- Marine Science
- Air Sea Interaction
- Geoecohazard
- Coastal Policy
- Coastal Health
- Coastal Resources
- Coastal Social & Economic
- Fisheries Processing Technology
- Disaster Mitigation & Rehabilitation
- Oceanography

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Accepted papers received: 13 April 2021
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Distribution of DO (Dissolved Oxygen) and BOD (Biological Oxygen Demand) in the Waters of Karimunjawa National Park using Two-Dimensional Model Approach

N Rizki[1*], L Maslukah[1], D N Sugianto[1,2], A Wirasatriya[1,2], M Zainuri[1], A Ismanto[1], A R Purnomo[3] and A D Ningrum[4]

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[2]Center for Coastal Rehabilitation and Disaster Mitigation Studies, Diponegoro University, Semarang, Indonesia
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Abstract. Massive mangrove conversion into intensive pond farming has become environmental problem in Kemujan Island and Karimunjawa Island which affect the water quality. This research aimed to examine the dispersion of DO and BOD related to the current pattern in the seas west of Kemujan Island and Karimunjawa Island by using two-dimensional modelling simulations. Quantitative and descriptive methods were used to provide interpretation and analysis of the modelling simulation results. Modelling simulations were conducted in September 2019. The validation results show that the model and the field measurements has a very good. The results show that the current characteristics are dominated by tidal current, which moves westward with an average magnitude of 0.078 m/s. Furthermore, divergence, convergence and turbulence are also identified. Based on the simulation results, the prediction of DO and BOD concentrations fluctuate in Lagoon Mrican. During spring tide, the DO concentration changes from 7.95 - 8.1 mg/L into 8.55 - >9.45 mg/L and during neap tide, it changes from 8.55 - 8.7 mg/L into 9.15 - >9.45 mg/L. On the other hand, the BOD concentration increases from 0 - 0.08 mg/L to 0.88 - 0.96 mg/L during spring tide and neap tide.

1. Introduction

1.1. Background

Karimunjawa Islands have a coastal area that is dominated by mangrove ecosystems. In Karimunjawa was found that the phenomenon of mangrove deforestation in the Karimunjawa National Park area was 20.69 ha, which was dominated by the conversion of mangrove land to aquaculture ponds [1,2]. There is urgent need to develop of sustainable management in the utilization of mangrove forests [3], as well as corals [4], seagrass [5] and other ecosystems. In fact, marine and coastal ecosystems are part of the biodiversity and the most vulnerable globally [6]. One of the factors affecting the condition of the coastal ecosystem is the activity of utilizing coastal resources, such as the waters of the Karimunjawa

Coastal Buffer Zone Management in Banten Province Coastal Region During The December 2018 Tsunami Waves in The Sunda Strait

A Daulat, T Solihuddin, H L Salim, A Heriati, S Husrin, M Ramdhan and D Purbani

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Meulaboh Tombolo Response to Large Tsunami, West Coast of Sumatra Island, Indonesia

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The Effect of ENSO and IOD on The Variability of Sea Surface Temperature and Rainfall in The Natuna Sea

A D Puryajati, A Wirasatriya, L Maslukah, D N Sugianto, F Ramdani, A R Jalil and Y O Andrawina

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Implementation of The International Chamber of Ship Guidance For Ship Operators For The Safety of The Health Seafarers in The New Normal Age

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Spatial Distribution of Lift Net (bagan) and The Impact on *Sardinella lemuru* Catches in Senggrong Bay, Banyuwangi

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Stratification on the Vertical Structure of the Tidal Ellipse and Power Density Estimation in the Larantuka Strait, East Flores Based on ADCP Measurement Data

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The Effect of Seaweed Extract on The Growth of Shoot of Shallot (*Allium wakegi* Araki) Lembah Palu Variety on *in vitro*

R Yusuf, U Made, A Syakur, R N aestary, Y Kalaba, M A Pasigai and Hawalina

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The Effect of ENSO and IOD on The Variability of Sea Surface Temperature and Rainfall in The Natuna Sea

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Abstract. The Natuna Sea is located at the northwestern part of Indonesia. Previous studies had showed that ENSO has a stronger impact on SST than chlorophyll-a. According to several studies, Indonesian oceans are heavily impacted by IOD. This study uses SST data with high-resolution satellite imagery (MODIS and Pathfinder) and rainfall and wind data from the Reanalysis Model (ERA-5) which is processed using a composite method and correlation grid. This research results, when *La-Niña* negative IOD SST will decrease 1°C and rainfall rises 7 mm/day while when *El-Niño* IOD positive SST will increase by 1°C while in rainfall will decrease by 3 mm/day. The variation of SST and rainfall is more influenced by ENSO than IOD.

1. Introduction

Indonesian oceans are located between two large oceans, namely the Pacific Ocean and the Indian Ocean. Natuna Sea, which is located in the northwestern part of the Indonesian oceans is thought to be affected by the two oceans. One aspect of climate variability related to sea surface temperature is the *El-Niño* Southern Oscillation (ENSO), where ENSO is an anomaly of sea surface temperature at the equator of the Pacific Ocean. ENSO has three phenomena including normal ENSO, El-Niño, and La-Niña. SST anomaly does not only occur in the Pacific Ocean but also occurs in the Indian Ocean. IOD or Indian Ocean Dipole is an SST anomaly that occurs in the Indian Ocean which affects Indonesian oceans as well as being affected by IOD [1].

Previous research conducted by several researchers [2,3,4,5] has studied extensively the climate variability of ENSO and IOD, but the research that assessing the simultaneous impact of ENSO and IOD on SST and rainfall has yet to be carried out, particularly in the Natuna Sea. Continuing from previous research, [5] stated that ENSO greatly affects SST in the Natuna Sea and [3] found that IOD

Reproductive Performance of Java Barb (*Punctius javanicus*) Injected sGNRH and Domperidone of Different Dosage

T Yuniarti, F Basuki, S Hastuti, R A Nugroho and S Marantika

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Preliminary Evaluation of Anti Fish Pathogenic Bacteria and Metabolite Profile of Andaliman Fruit (*Zanthoxylum acanthopodium* DC.) Ethanol Extract

E H Frederick, M T Sibero, A P Wijaya, E Syafitri, A Puspitarini Siswanto, R Murwani, D P Wijayanti, A Sabdono, D Pringgenies and O K Radjasa

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Preliminary Screening of Carbohydrase-Producing Bacteria from *Chaetomorpha* sp. in Sepanjang Beach, Yogyakarta, Indonesia

A P Wijaya, M T Sibero, D S Zilda, A N Windiyana, A Wijayanto, E H Frederick, R Murwani, D P Wijayanti, A Sabdono, D Pringgenies *et al*

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Benthic Habitat Mapping using Sentinel 2A: A preliminary Study in Image Classification Approach in An Absence of Training Data

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Median Lethal (LC50-48) with *Azadirectha* Biopestisides in Post Larva Tiger Shrimp (*Penaeus monodon*) in Low Salinity

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Occurrence and Prediction of Coral Bleaching Based on Ocean Surface Temperature Anomalies and Global Warming in Indonesian Waters

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Characterization of Charcoal From Kerandang (*Channa pleurophthalma* Bleeker) Fish Fins Waste As A Source of Hydroxiapatite

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Physical Oceanography Condition and the Turbulent Mixing in Mid-upper Layer of the Eastern Indian Ocean during the InaPRIMA Cruise 2019

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A Preliminary Study of Land Use Change and Hydro-meteorological Disaster in The North Coast of Central Java

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Validation of Badan Informasi Geospasial Tide Model in the Sunda Strait Waters using Sebesi Island Tide Gauge Data

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The El Niño Southern Oscillation (ENSO) Effect on Upwelling in The North Maluku Sea

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Distribution of Turbidity Values, Total Suspended Solids and Heavy Metals Pb, Cu in Tanah Merah Beach Waters and Semujur Island Waters, Bangka Tengah Regency

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Development of Empirical Model of Total Suspended Solid (TSS) by using Landsat 8 on the Coast of Bekasi Regency

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Characteristics and Depositional Processes of Coastal and Marine Sediments of The Northern Part of Obi Island, Molucca

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Monitoring The Sea Surface Temperature and Total Suspended Matter Based on Cloud-Computing Platform of Google Earth Engine and Open-Source Software

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Morphometric Distribution of Java Eel *Anguilla* sp. Caught from Different Estuaries of Central Java

N Taufiq-Spj, J Hutabarat, A Trianto, D N Sugianto, G W Santosa, I Pratikto, R Ario, A Indarjo and S Suryono

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The Use of tpsDig in Re-Describing Morphometry of *Barbodes binotatus* Caught in Java Island, Indonesia

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Anti-Inflammatory Potential from Tilapia (*Oreochromis niloticus*) Viscera Hydrolysate with Bioinformatics Analysis (Prediction of Activity Spectra for Substances – PASS)

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Drying Kinetics and Study of Physical Characteristic Using Image Analysis of Dried Salted Striped Catfish (*Pangasius hypophthalmus*)

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The Effect of Starting Shocking Time on Carbon, Nitrogen, and Organic Matter Absorption of *Bacillus megaterium* BM1 in Vegetative and Sporulation Phases

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Organoleptic Quality of Tuna Porridge Canned with Fortified Tuna Bone Meal

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Breakfast Cereal in Flakes Form Based on Millet Flour and Snakehead Fish *Koya*

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Length-Weight Ratio and Condition Factor of Endemic Fish *Oryzias nigrimas* (Kottelat, 1990) in Poso Lake, Central Sulawesi

N Serdiati, D Arfiati, M S Widodo, T D Lelono, A Masyahoro, N Hasanah and A Gani

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The Growth Analysis of *Euchema cottonii* using The Simple Longline Method and Basket Method on The Coast of Kemojan Island

R A Nugroho, D Wijayanto, F Kurohman, I D Maulina and R E Puspitasari

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Coral Reef Coverage and Reef Fish Abundance in Menyawakan Island, Karimunjawa

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Approaching SWOT Analysis to Develop Strategies of Marine-Ecotourism in Bedono Village, Sayung, Demak

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Effects of Brazilin Contained in *Caesalpinia sappan* L on The Properties of Fish Paste from Ponyfish (*Leiognathus* sp)

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Inventory Shaft and Propeller of Traditional Vessels in Gresik-East Java

A H Budiarto, A Winarno and P D Setyorini

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Astrogorgia sp. from Saparua, Maluku: Phytochemical Content, Antimicrobial, Antioxidant, and Cytotoxicity Properties

M T Sibero, D S Zilda, D Haryanti and Y Igarashi

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Corrigendum: Morphometric distribution of Java eel Anguilla sp. caught from different estuaries of Central Java (2020 *IOP Conf. Ser.: Earth Environ. Sci.* 750 012042)

N. Taufiq-Spj, J. Hutabarat, A. Trianto, D. N. Sugianto, G. W. Santosa, I. Pratikto, R. Ario, A. Indarjo and S. Suryono

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Astrogorgia sp. from Saparua, Maluku: Phytochemical Content, Antimicrobial, Antioxidant, and Cytotoxicity Properties

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Abstract. Gorgonian is one of marine invertebrates that is still underexplored as a source of bioactive compounds. This study aimed to discover the biological properties of *Astrogorgia* sp. and its phytochemical content. A consecutive extraction method using *n*-hexane, ethyl acetate and methanol was conducted to obtain secondary metabolites from the sample. Antimicrobial assay was performed against ESBL *E. coli*, MRSA, *C. albicans*, and *M. furfur*; cytotoxicity against P388 Murine Leukaemia Cancer Cells, antioxidant was tested using DPPH method. The consecutive extraction method gave yield (%) as follows: 0.21 ± 0.22 from *n*-hexane; 0.67 ± 0.17 from acetyl acetate; and 1.20 ± 0.50 from methanol. All fractions gave positive results on antibacterial assay against all pathogens while only gave antifungal activity against *C. albicans*. Methanol fraction had the highest antioxidant activity, while *n*-hexane fraction showed the best cytotoxicity.

1. Introduction

Sessile marine invertebrates produce unique chemical substances to protect themselves from predator and environmental stresses [1]–[3]. These chemical substances steal attention due to their beneficial biological activity for humans. It is proven by the FDA's approval of several drugs that are originated from marine invertebrate such as ascidian, bryozoan, and sponge [4]. Among all reports, sponge has been emphasized as the most profiling marine invertebrate since many studies successfully isolated bioactive compounds from it [5]. Nonetheless, other invertebrates such as gorgonian become neglected.

Gorgonian is a member of Alcyonacea (soft corals), which is characterized by always have eight tentacles (octocoral) in their polyps with rows of pinnules along both sides of the tentacles [6]. This animal is commonly found in almost all marine environments from shallow-water, mesophotic to the deep sea; therefore, plenty of studies were conducted to discover their biodiversity in Indonesia [6], [7]. However, the study of biological activity of Indonesia's gorgonian is rarely reported. The latest study

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