

# ABSTRACT BOOK



# ICGRC

Santika  
Hotel  
Malang  
September  
4 - 5,  
2019

**THE 10<sup>th</sup> INTERNATIONAL  
CONFERENCE ON GLOBAL  
RESOURCE CONSERVATION**

***“Biodiversity  
Conservation for  
Sustainable  
Bioeconomy”***

ORGANIZED BY:  
Biology Department  
Faculty of Mathematics  
and Natural Sciences  
Universitas Brawijaya

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# FOREWORD

Welcome to the 10th International Conference on Global Resource Conservation (ICGRC 2019). The theme this year is Biodiversity Conservation for Sustainable Bioeconomy. The topic aligns bio-based economic activities that have strong innovation potential due to their use of a wide range of sciences, and enabling industrial technologies with biodiversity conservation so that a sustainable activity could be established.

In this event, around 130 authors will share their current experiments, knowledge, and experiences through five subtopics which are botany, zoology, conservation ecology, environmental science, and sustainable materials and resources. They are experts, lecturers, researchers, and students from various universities and research centers from Indonesia and abroad. Through this activity, it is expected to initiate collaborations, create innovation, and meet the demands for development of science and technology.

We would like to deliver a deep appreciation to the dedicated committee members, honorable speakers, and active participants, who have invested significant time to success this event. Additional thanks are given to Universitas Brawijaya and Indonesian Biology Consortium (KOBI) for their supports, and Center of Academic Proofreading Agency (CAPA) for sponsorship.

Finally, we welcome you to Malang, a city known for its cooler temperature, beautiful surrounding countryside, and attractive streets lined with historical buildings. We hope that you will take advantage of the many sights to see in the city, as well as the many natural and man-made wonders nearby, during your stay.

Malang, 04 September 2019

Irfan Mustafa  
Chairperson of the 10th ICGRC  
Universitas Brawijaya

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## CONFERENCE SCHEDULE

### 10<sup>th</sup> International Conference on Global Resource Conservation 2019 “Biodiversity Conservation for Sustainable Bioeconomy” Santika Premiere Hotel, Malang, Indonesia

Wednesday, 4 September 2019

07.30 – 08.30	Registration
08.30 – 08.45	Opening Dance and Welcoming Speech
08.45 – 09.00	<i>Coffee Break</i>
<b>PLENARY SESSION 1</b> , Moderator: Amin S. Leksono	
09.00 – 09.30	<b>Muhaimin Iqbal</b> (Chairman of Indonesia Startup Center, INDONESIA) <i>“Divine Sustainable Bio-economy”</i>
09.30 – 10.00	<b>Premavathy Vijayan</b> (Faculty of Education, Vice Chancellor of Avinashilingam University for Woman, INDIA) <i>“Biodiversity Conservation towards Successful Inclusion : An Indian perspective”</i>
10.00 – 10.20	Discussion
<b>PLENARY SESSION 2</b> , Moderator: Luchman Hakim	
10.20 – 10.50	<b>Jae-Eun Kim</b> (Institution for Marine and Island Cultures, Mokpo National University, South Korea) <i>“Ecosystem Services and Sustainability on Islands, Republic of Korea”</i>
10.50 – 11.20	<b>Chandrakant Salunkhe</b> (Krishna Mahavidyalaya College, INDIA) <i>“Grasses : An Important Underutilized Natural Resource for Sustainable Bioeconomy”</i>
11.20 – 11.40	Discussion
11.40 – 12.00	Photo session
12.00 – 13.00	<i>Lunch Break</i>
13.00 – 13.45	<b>POSTER SESSION</b>

13.45 – 14.50	Parallel session
14.40 – 15.10	<i>Coffee Break</i>
15.20 – 16.00	Parallel session
18.15 – 21.00	Gala Dinner

### Thursday, 5 September 2019

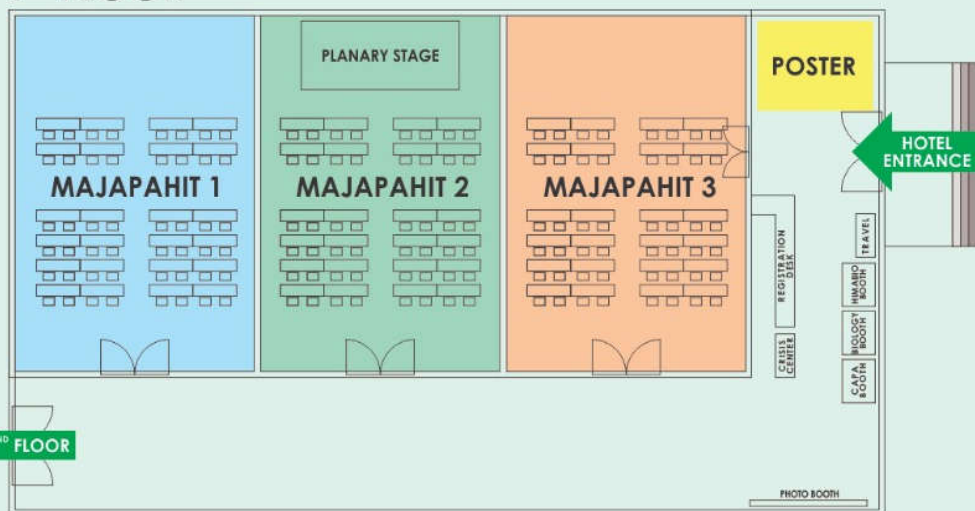
08.00 - 08.30	Registration and Morning Tea
<b>PLENARY SESSION 3</b> , Moderator: Mufidah Afiyanti	
08.30 – 09.00	<b>Marian P. De Leon</b> (University of the Philippines, PHILIPPINES) <i>“Exploring Philippine Caves as Potential Sources of Bioactive Compounds”</i>
09.00 – 09.30	<b>Widodo</b> (University of Brawijaya, INDONESIA) <i>“The Concept of Biodiversity Conservation on Indonesian Traditional Medicine of JAMU”</i>
09.30 – 09.50	Discussion
10.00 – 11.40	Parallel session
11.40 – 12.40	<i>Lunch Break</i>
12.40 – 15.00	Parallel session
15.00 – 15.15	<i>Coffee Break</i>
15.15 – 16.00	<b>CLOSING CEREMONY</b>



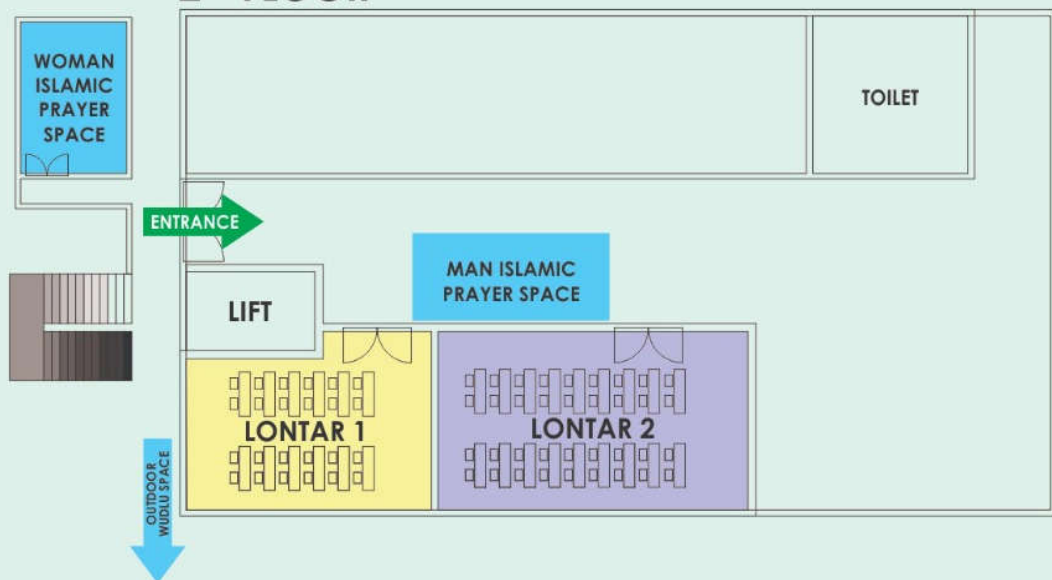
INTERNATIONAL CONFERENCE ON  
**GLOBAL  
RESOURCE  
CONSERVATION**

September 4-5,  
2019

## 1<sup>ST</sup> FLOOR



## 2<sup>ND</sup> FLOOR





## PARALLEL PRESENTATION SCHEDULE

### ZOOLOGY

(Room Lontar 1)

Wednesday, 4 September 2019

13.45 – 14.00	<b>INVITED SPEAKER</b> <b>Sri Rahayu.</b> Ethanol Extract of <i>Marsilea crenata</i> Leafs and Its Effects on Sperm Quality and Histology of The Testes of <i>Rattus norvegicus</i>	<b>Moderator:</b> <b>Muhammad Hattah Fattah</b>
14.00 – 14.10	<b>ZLG/O-001 - Mudawamah</b> <b>Mudawamah et al.</b> Comparison between Indonesian Local Ettawah Goats derived from Natural Service and Artificial Insemination based on Repeated T-Nucleotide	
14.10 – 14.20	<b>ZLG/O-002 - Zauhani Kusnul H.</b> Optimization of Making Breast Cancer Model Rats Using 7,12-Dimethylbenz (A) Anthracene (DMBA) Induction	
14.20 – 14.30	<b>ZLG/O-003 - Yulilina Retno Dewahrani et al.</b> Digital Book Development In Locomotor System Material	
14.30 – 14.40	<b>Discussion</b>	
14.40 – 15.10	Coffee Break	
15.10 – 15.20	<b>ZLG/O-004 - Muhammad Hattah Fattah et al.</b> Survival Rate and Quality of Zoea Phronima Suppa (Phronima sp) with the Cryptobiosis Application	<b>Moderator :</b> <b>Zauhani Kusnul H</b>
15.20 – 15.30	<b>ZLG/O-005 - Naqiyah A. Mulachelah et al.</b> Structural Coloration Observation That Produced Iridescent Blue Color On Javan Peacock ( <i>Pavo muticus muticus</i> ) Tail Feather Using SEM	

15.30 – 15.40	<b>ZLG/O-006 - MM Riyaniarti Estri Wuryandari <i>et al.</i></b> The effect of <i>Moringa oleifera</i> Lam leaf extract fermented by <i>Lactobacillus plantarum</i> on the expression of B220 + cells and CD11b + cells in mice infected with <i>Salmonella typhi</i>	
15.40 – 15.50	<b>Discussion</b>	

#### Thursday , 5 September 2019

10.00 – 10.10	<b>ZLG/O-007. Nur Kuswanti <i>et al.</i></b> Apoptotic and Necrotic Lymphocytes after Treatment of Stem Bark Extract of <i>Plumeria rubra</i> L. <i>in vitro</i>	<b>Moderator: Gatot Ciptadi</b>
10.10 – 10.20	<b>ZLG/O-008. Abdul Gafur.</b> First Record of Two Known Species of Mylonchulus Cobb, 1916 (Nematoda: Mylonchulidae) from South Kalimantan	
10.20 – 10.30	<b>ZLG/O-009. Sri Wahjuningsih <i>et al.</i></b> Goat Oocytes Quality After Vitrification Using Difference Of Glycerol Concentration And Exposure Time	
10.30 – 10.40	<b>ZLG/O-010. Sofia Ery Rahayu <i>et al.</i></b> Developmental Response of <i>Spodoptera litura</i> Larvae due to Exposure of Leaf Extracts of Two Papaya Cultivars	
10.40 – 10.50	<b>Discussion</b>	
10.50 – 11.00	<b>ZLG/O-011. Yendraliza <i>et al.</i></b> The Recovery Rate Of Simmental Sperm Frozen Of Post Thawing By Using Tris Dilution With Different Egg Yolks	<b>Moderator: Sri Wahjuningsih</b>
11.00 – 11.10	<b>ZLG/O-012. Gatot Ciptadi <i>et al.</i></b> Reproductive Characters and Performance of Swamp Buffalo in Dry and Wet Condition Area in Small Holder Farmer in Lumajang Regency, East Java	

11.10 – 11.20	<b>ZLG/O-013. Ade Haerullah <i>et al.</i></b> Development of Archipelago Entomology Module Based on Research of Genetic Diversity of Ornithoptera spp. In Khairun University	
11.20 – 11.30	<b>ZLG/O-014. Abdu Mas'ud <i>et al.</i></b> Life Cycle of Ornithoptera croesus Endemic Buttons of Bacan Islands on Plants of Mussaenda and Assoca	
11.30 – 11.40	<b>Discussion</b>	
11.40 – 12.40	Lunch Break	
12.40 – 12.50	<b>ZLG/O-015. Adinda Rizki Ramadhanti <i>et al.</i></b> Histological Structure Of Small Intestine In Male Layer Chicken [Gallus gallus gallus (Linnaeus, 1758)] After Given Ethanolic Extract Of Green Algae ( <i>Spirogyra jaoensis</i> ) On Pre-Starter Feeds	<b>Moderator: Ade Haerullah</b>
12.50 – 13.00	<b>ZLG/O-016. Abdul Hamid A. Toha <i>et al.</i></b> Genetic Characteristics of Whale Shark <i>Rhincodon typus</i> based on fragment mitochondrial COI gene sequences	
13.00 – 13.10	<b>ZLG/O-017. Suyadi and M. Nasich.</b> Reproduction Index of Kacang goats at different parities in closed population in Buduran Village, Sidoarjo, East Java, Indonesia	
13.10 – 13.20	<b>Discussion</b>	

**BOTANY**  
**(Room Lontar 2)**

**Wednesday, 4 September 2019**

13.45 – 14.00	<b>INVITED SPEAKER</b> <b>Tetsuya Okuyama <i>et al.</i></b> Effects of functional foods on thermotolerance of the nematode <i>Caenorhabditis elegans</i>	<b>Moderator:</b> <b>Estri Laras Arumingtyas</b>
14.00 – 14.10	<b>BOT/O-001. Yupi Isnaini <i>et al.</i></b> Sporophyte Formation of <i>Cibotium barometz</i> at Various Concentrations of $KNO_3$	
14.10 – 14.20	<b>BOT/O-003. Brian Rahardi.</b> Modelling <i>Casuarina junghuhniana</i> dispersal in Tengger Sea of Sands of Bromo Tengger Semeru National Park using Cellular Automata	
14.20 – 14.30	<b>BOT/O-004. Prita Paramitha Fatmawati &amp; Jati Batoro.</b> Ethnobotany of Jonggol Plants ( <i>Erechtites valerianifolia</i> Wolf.) by Communities in Traditional Markets in Malang City and Detection of Its Chemical Compounds	
14.30 – 14.40	<b>Discussion</b>	
14.40 – 15.10	Coffee Break	
15.10 – 15.20	<b>BOT/O-005. Moch. Faizul Huda <i>et al.</i></b> The Effect of Explants and Growth Regulators On Callus Induction of Geranium ( <i>Pelargonium graveolens</i> L'Her) In Vitro	<b>Moderator:</b> <b>Brian Rahardi</b>
15.20 – 15.30	<b>BOT/O-011. Nunung Harijati.</b> The effect of cutting the bulbil-porang ( <i>Amorphophallus muelleri</i> ) on its germination ability	
15.30 – 15.40	<b>BOT/O-012. Estri Laras Arumingtyas <i>et</i></b>	

	<i>al.</i> Study on the Profile of Capsanthin-Capsurobin Synthase (Ccs) Gene responsible for Carotenoid Synthesis in Chili Pepper ( <i>Capsicum frutescens</i> L.) Mutants G1M6 M2 Generation	
15.40 – 15.50	<b>Discussion</b>	

#### Thursday, 5 September 2019

10.00 – 10.15	<b>INVITED SPEAKER</b> <b>Retno Mastuti.</b> Diversity of bioactive secondary metabolites produced by medicinal plants Ciplukan ( <i>Physalis angulata</i> L.)	<b>Moderator:</b> <b>Ryo Okada</b>
10.15 – 10.25	<b>BOT/O-006. Isnaini <i>et al.</i>:</b> Characterization dan Genetic Variability of Rambutan ( <i>Nephelium lappaceum</i> L) Based on Morphological Characteristics in Pekanbaru, Riau	
10.25 – 10.35	<b>BOT/O-007. Puji Shandila <i>et al.</i>:</b> Character Selection by Path and Principal Component Analysis for Enhanced Seed Size and Yield in Local Castor Bean ( <i>Ricinus communis</i> L.)	
10.35 – 10.45	<b>BOT/O-008. Darmawan Saptadi <i>et al.</i>:</b> Morphological and Citological Response of Bambara Groundnut ( <i>Vigna subterranea</i> (L.) Verdcourt) by Colchicine Polyploidization	
10.45 – 10.55	<b>Discussion</b>	
10.55 – 11.05	<b>BOT/O-009. Syarif Husen <i>et al.</i>:</b> Beeswax Formulation and Wrapping Effects on Physical Characteristics of Red Garifta Mango Variety	<b>Moderator:</b> <b>Darmawan Saptadi</b>
11.05 – 11.15	<b>BOT/O-010. Dwi Gusmalawati <i>et al.</i></b> LC-MS Analysis of Carbohydrate Components in Porang Tubers ( <i>Amorphophallus muelleri</i> Blume) from the Second and	

	Third Growth Period	
11.15 – 11.25	<b>BOT/O-013. Ryo Okada <i>et al.</i></b> Isolation of constituents that inhibit nitric oxide production from the <i>Angelica dahurica</i> root	
11.25 – 11.35	<b>BOT/O-014. Suzuka Makabe <i>et al.</i></b> The effect of the rhizome of <i>Cyperus rotundus</i> on nitric oxide production in rat hepatocytes	
11.35 – 11.45	<b>Discussion</b>	
11.45 – 12.45	Lunch Break	
12.45 – 12.55	<b>BOT/O-016. Titi Kalima &amp; Adi Susilo.</b> Habitat Characteristic of <i>Taxus sumatrana</i> (Miquel) de Laub In The Kerinci Seblat National Park	<b>Moderator: Kartini Kartini</b>
12.55 – 13.05	<b>BOT/O-017. Denny &amp; Adi Susilo.</b> Species Composition in the Habitat of <i>Dipterocarpus gracilis</i> Ulolanang Nature Reserve	
13.05 – 13.15	<b>BOT/O-018. Sri Rahayu <i>et al.</i></b> Lime ( <i>Citrus aurantifolia</i> ) Peel Effect on Peroxide Value of Cooking Oil	
13.15 – 13.25	<b>BOT/O-019. Shinta, S.E. <i>et al.</i></b> Leveraging Local Wisdom on Plants to Unlock the Green Economy Potential of Flores	
13.25 – 13.35	<b>Discussion</b>	
13.35 – 13.45	<b>BOT/O-020. Frida Kunti Setiowati <i>et al.</i></b> Comparison of Organosulfur Bioactive Compounds in Bulb, Callus and Cells Suspension of Single Garlic ( <i>Allium sativum</i> L)	<b>Moderator: Sri Rahayu</b>
13.45 – 13.55	<b>BOT/O-021. Noor Aini Habibah <i>et al.</i></b> Effect of Growth Regulators on Cell Growth and Flavonoid Production in Cell Culture of <i>Elaeocarpus grandiflorus</i>	

13.55 – 14.05	<b>BOT/O-022. Kartini Kartini <i>et al.</i></b> Standardization of Some Indonesian Medicinal Plants Used in “Scientific Jamu”	
14.05 – 14.15	<b>Discussion</b>	

## **BOTANY**

### **(Room Lontar 1)**

13.20 – 13.30	<b>BOT/O-023. Nur Indah Julisaniah <i>et al.</i></b> Characterization of Peanut Stripe Virus from West Nusa Tenggara	<b>Moderator:</b> <b>Budi Waluyo</b>
13.30 – 13.40	<b>BOT/O-024. Eny Yuniati <i>et al.</i></b> Potential Of Etnozology In Traditional Treatment Of Ethnic Bada In Lore Lindu Biosphere Reserves Central Sulawesi	
13.40 – 13.50	<b>BOT/O-025. Adriani <i>et al.</i></b> Molecular Docking Studies Of Alkaloid From Sanrego ( <i>Lunasia amara</i> Blanco) As Antidiabetes Through Alpha Amylase Inhibitor	
13.50 – 14.00	<b>BOT/O-026. Marisca Evalina Gondokesumo <i>et al.</i></b> Improvement of Herbal Research with Bioinformatics in Pharmacy Student Faculty of Pharmacy University of Surabaya	
14.00 – 14.10	<b>Discussion</b>	
14.10 – 14.20	<b>BOT/O-027. Budi Waluyo <i>et al.</i></b> Diversity and Population Structure Pea ( <i>Pisum sativum</i> L.) Landrace Based on Morphological Data for Indigenous Biodiversity Conservation and Breeding in Indonesia	<b>Moderator:</b> <b>Marisca Evalina Gondokesumo</b>
14.20 – 14.30	<b>BOT/O-028. Rizka Aikmelis <i>et al.</i></b> Biodiversity Conservation with Advanced Variability through Mutation	

	and Correlation between the Character of Castor Bean ( <i>Ricinus communis</i> L.) for Sustainable Bioeconomy	
14.30 – 14.40	<b>BOT/O-029. Itsar Auliya <i>et al.</i></b> Comparative Study of Leaf Stomata Profiles among Different Genomic Groups of Banana ( <i>Musa</i> L.)	
14.40 – 14.50	<b>Discussion</b>	



**CONSERVATION ECOLOGY**  
**(Room Majapahit 1)**

**Wednesday, 4 September 2019**

13.45 – 14.00	<b>INVITED SPEAKER</b> <b>Catur Retnaningdyah <i>et al.</i></b> Water Quality Evaluation Of Some Beach With Variations Of Human Activities And Land Use In Spermonde Islands of Makassar South Sulawesi	<b>Moderator:</b> <b>Arief Setyanto</b>
14.00 – 14.10	<b>ECO/O-001. Oktiyas Muzaky Luthfi <i>et al.</i></b> Internal Bioeroders in Skeleton Massive Coral <i>Porites lutea</i> of South Java Sea	
14.10 – 14.20	<b>ECO/O-002. Lita Soetopo <i>et al.</i></b> Biodiversity Conservation Of Epiphyte Orchids In The Natural Habitat For Sustainable Bioeconomy	
14.20 – 14.30	<b>ECO/O-004. Anthon Andrimida &amp; Rudi Hermawan.</b> Diversity and Distribution of Sea Slugs (Gastropoda: Heterobranchia) in Sempu Strait, Indonesia	
14.30 – 14.40	<b>Discussion</b>	
14.40 – 15.10	Coffee Break	
15.10 – 15.20	<b>ECO/O-005. Alfandi <i>et al.</i></b> Effect of Rhizobium Inoculum and Liquid Organic Fertilizer on Growth and Yield of Peanut ( <i>Arachis hypogaea</i> L.) CV. Takar-2	<b>Moderator:</b> <b>Lita Soetopo</b>
15.20 – 15.30	<b>ECO/O-006. Arief Setyanto <i>et al.</i></b> Species composition of spiny lobsters caught at the South Sea of Pacitan of East Java, Indonesia	
15.30 – 15.40	<b>ECO/O-007. Hasrianti <i>et al.</i></b> The Implication of Communities Against	

	Coastal Water Pollution	
15.40 – 15.50	<b>ECO/O-008. Nuril Ahmad <i>et al.</i></b> Diversity And Conservation Status Of Fish In The Water Of Rolak Songo Dam, Mojokerto District East Java Indonesia	
15.50 – 16.00	<b>Discussion</b>	

#### Thursday, 5 September 2019

10.00 – 10.15	<b>INVITED SPEAKERS</b> <b>Amin Setyo Leksono <i>et al.</i></b> The effectiveness of banana tuber and goat rumen as bio-activator of liquid biopesticide fertilizers	<b>Moderator:</b> <b>Qothrun Izza</b>
10.15 – 10.25	<b>ECO/O-009. Zainal Abidin <i>et al.</i></b> Refugia Effect toward Arthropods in a Organic Paddy Field in Malang, East Java	
10.25 – 10.35	<b>ECO/O-011. Ratna Komala <i>et al.</i></b> Holothuroiidea as a Constituent of Benthic Communities in the Seagrass Ecosystems at Bira Island of the Kepulauan Seribu	
10.35 – 10.45	<b>ECO/O-012. Ratna Komala <i>et al.</i></b> Microalgae as a Bioindicator of Water Quality in the Tidung Island of The Kepulauan Seribu	
10.45 – 10.55	<b>Discussion</b>	
10.55 – 11.05	<b>ECO/O-014. Rizky Mulyo Adi P. <i>et al.</i></b> Liquid Smoke Potential Based on Coconut Shell ( <i>Cocos nucifera</i> ) For Controlling of Rice Bug ( <i>Leptocorisa oratorius</i> Fabricius) (Hemiptera : Alydidae)	<b>Moderator:</b> <b>Zainal Abidin</b>
11.05 – 11.15	<b>ECO/O-015. Dian Rizkiaditama <i>et al.</i></b> Evaluation of Ecosystem Quality,	

	Comfort and Ecosystem Services of Eco-friendly Residential in Lowokaru District of Malang	
11.15 – 11.25	<b>ECO/O-016. Qothrun Izza <i>et al.</i></b> Native and non-native frogs responded differently to modernization in the irrigation system at Japanese paddy fields	
11.25 – 11.35	<b>Discussion</b>	
11.40 – 12.40	Lunch Break	
12.40 – 12.50	<b>ECO/O-017. Suhadi, Agus Dharmawan, Etis Prasila Utami.</b> Understanding the Characteristic of Roosting Sites of Green Peafowl ( <i>Pavo muticus</i> Linnaeus, 1766) in Baluran National Park	<b>Moderator: Hatib Kadir</b>
12.50 – 13.00	<b>ECO/O-018. Yunus Effendi <i>et al.</i></b> Metagenomic analysis of diversity and composition of soil bacteria under intercropping system <i>Hevea brasiliensis</i> and <i>Canna indica</i> , L	
13.25 – 13.35	<b>Discussion</b>	
13.35 – 13.45	<b>ECO/O-019. Indah Trisnawati <i>et al.</i></b> Interspecific variation in herbivory level and leaf nutrients of mangroves <i>Rhizophora</i>	<b>Moderator: Yunus Effendi</b>
13.45 – 13.55	<b>ECO/O-020. Hatib Kadir.</b> Competitive Hospitality: Adat (Custom), Religion and Ecological Degradation in a Periphery Indonesia	
13.55 – 14.05	<b>ECO/O-021. Asma Irma Setianingsih <i>et al.</i></b> Pesantren-Based Disaster Mitigation Strategy : Case Study Pondok Pesantren Darunnajah Cipining Bogor	
14.05 – 14.15	<b>Discussion</b>	

**ENVIRONMENTAL SCIENCE**  
**(Room Majapahit 2)**

**Wednesday, 4 September 2019**

13.45 – 14.00	<b>INVITED SPEAKER</b> <b>Kalaiselvi Senthil.</b> Integration of Traditional Knowledge with Modern Science for Conservation of Medicinal Plants in India	<b>Moderator:</b> <b>Bambang Fajar Suryadi</b>
14.00 – 14.10	<b>ENV/O-001. Saparuddin Mukhtar <i>et al.</i></b> : Factors for Empowering UMKM in Maintaining Sustainable Bioeconomy	
14.10 – 14.20	<b>ENV/O-002. Miftahul Jannah and Sari Narulita.</b> Water conservation in Islamic studies	
14.20 – 14.30	<b>ENV/O-003. Sutoyo <i>et al.</i></b> : Screening of Keratinolytic Fungi for Biodegradation Agent of Chicken Feather Waste Keratin	
14.30 – 14.40	<b>Discussion</b>	
14.40 – 15.10	Coffee Break	
15.10 – 15.20	<b>ENV/O-004. Bambang Fajar Suryadi <i>et al.</i></b> : Utilization of Coconut Milk and Cane Sugar to Grow Indigenous Entomopathogenic <i>Bacillus thuringiensis</i> for Controlling <i>Aedes aegypti</i> Larvae	<b>Moderator:</b> <b>Sutoyo</b>
15.20 – 15.30	<b>ENV/O-005. K.Y.S. Putri <i>et al.</i></b> : Effects of Media Literacy on the Message of the Conservation of the Earth to the knowledge of the Indonesian people	
15.30 – 15.40	<b>ENV/O-006. K.Y.S. Putri <i>et al.</i></b> : Relationship Content Media in New Media about the News Hoax about Conservation Diversity towards the	

	Attitudes of Indonesian Women	
15.40 – 15.50	<b>ENV/O-022. Efri Roziaty <i>et al.</i></b> Diversity analysis of lichen in urban and rural area using species abundance model SAD (Species Abundance Distribution) : case study in Surakarta, Central Java	
15.50 – 16.00	<b>Discussion</b>	

#### Thursday, 5 September 2019

10.00 – 10.15	<b>INVITED SPEAKER</b> <b>Yoga Dwi Jatmiko <i>et al.</i></b> Evaluation of Yeast Diversity in Dadih and Dangke using PCR-RFLP of Internal Transcribed Spacer Region	<b>Moderator:</b> <b>Arika Purnawati</b>
10.15 – 10.25	<b>ENV/O-007. Gatut Bintoro <i>et al.</i>:</b> Biology And Population Dynamics Analysis Of Fringescale Sardine ( <i>Sardinella fimbriata</i> ) In Bali Strait Waters, Indonesia	
10.25 – 10.35	<b>ENV/O-008. Rosaria <i>et al.</i>:</b> Spatial Patterns of Ecological Value of Sumba Island analyzed with Local Ecological Footprinting Tool for Supporting Sustainable Green Economy Growth	
10.35 – 10.45	<b>ENV/O-009. Diana Arfiati and Karina Farkha Dina.</b> Hematology and Micronuclei Analysis of Tilapia ( <i>Oreochromis niloticus</i> ) from Selorejo Reservoir, Ngantang, Malang, Indonesia	
10.45 – 10.55	<b>Discussion</b>	
10.55 – 11.05	<b>ENV/O-010. Sitoresmi Prabaningtyas <i>et al.</i>:</b> The Community Structure Of Microalgae And Exploring Its Potentially To Biofuel Producing In	<b>Moderator:</b> <b>Gatut Bintoro</b>

	Ranu Grati, East Java Indonesia	
11.05 – 11.15	<b>ENV/O-011. Arika Purnawati <i>et al.</i>:</b> Biodiversity of Endophytic Fungi from Lowland Tomato Plants and It's Potential to Antracnose Disease in Chili Plants at Green House	
11.15 – 11.25	<b>ENV/O-012. Nita Shilfiani Rohmah <i>et al.</i>:</b> Characterization of Rhizosphere Bacteria and Their Potency as Phytoremediation Promoting Agents of Cr (VI) Contaminated Soil	
11.25 – 11.35	<b>ENV/O-013. Gunawan Abidin <i>et al.</i>:</b> Effect of crude oil exposure to fertilization and larva development of the Black scar Oyster <i>Crasostrea iredalei</i>	
11.35 – 11.45	<b>Discussion</b>	
11.45 – 12.45	Lunch Break	
12.45 – 12.55	<b>ENV/O-014. Sutin Kingtong <i>et al.</i>:</b> Effect of DDT on oyster and potential biomarkers of its exposure by using proteomic approach	<b>Moderator:</b> <b>Arinto Y. P. Wardoyo</b>
12.55 – 13.05	<b>ENV/O-015. Rosmaina <i>et al.</i>:</b> Morphology and Fruit Quality Characters of Pineapple ( <i>Ananas comosus</i> L. Merr) cv. Quenn on Three Sites Planting: Freshwater Peat Swamp, Brackis Peat Swamp and Alluvial Soil	
13.05 – 13.15	<b>ENV/O-016. Aam Amaningsih Jumhur <i>et al.</i>:</b> Design of Waste Water Treatment Plant (WWTP) in Mini Incinerators	
13.15 – 13.25	<b>ENV/O-017. Rihlah Nur Aulia <i>et al.</i>:</b> Environmental Management Model In Coastal Area (Case Study Of Ekopesantren Al-Khairat Palu Sulawesi)	

	Tengah)	
13.25 – 13.35	<b>Discussion</b>	
13.35 – 13.45	<b>ENV/O-018. R. Susanti <i>et al.</i>:</b> Microplastic Detection in Local Duck from Intensive Farming in Central Java	<b>Moderator:</b> <b>Sutin Kingtong</b>
13.45 – 13.55	<b>ENV/O-019. Arinto Y. P. Wardoyo <i>et al.</i>:</b> Developing a low price integrated PM and Gas measurement system For Air Quality	
13.55 – 14.05	<b>ENV/O-020. Djuhari Djuhari <i>et al.</i>:</b> Application of Structural Equation Modeling to Control Anthracnose Disease Attacking Red Chili Grown in the East Java Production Center	
14.05 – 14.15	<b>Discussion</b>	
14.15 – 14.25	<b>ENV/O-021. Ervinda Yuliatin <i>et al.</i>:</b> Impact Analysis of Physicochemical Soil on PGPR Density of Coffee Plantation Indonesia	<b>Moderator:</b> <b>R. Susanti</b>
14.25 – 14.35	<b>ENV/O-023. Rini Puspitaningrum <i>et al.</i></b> The effectivity of Healthy Eating and Lifestyle (HEAL) program: a pilot project to initiate students' action in reducing air pollution	
14.35 – 14.45	<b>ENV/O-024. Haifa Nurislamidini Dj.</b> Knowledge and Perception as Social Capital in the Palm Sugar Production Management System ( <i>Arenga pinnata</i> Merr.) (Case Study: Sukaresmi village Rongga Sub-District West Bandung District)	
14.45 – 14.55	<b>Discussion</b>	

**SUSTAINABLE MATERIALS AND RESOURCES**  
**(Room Majapahit 3)**

**Wednesday, 4 September 2019**

13.45 – 13.55	<b>SMR/O-002. Ni'matul Izza and Shinta Rosalia Dewi.</b> Optimization Operation Condition of Microwave Aided Extraction of Phenol and Flavonoid from <i>Coleous amboinicus</i> Leaves	<b>Moderator:</b> <b>Yooce Yustiana</b>
13.55 – 14.05	<b>SMR/O-003. Trianik Widyaningrum et al.</b> Identification Indigenous Yeast from Palm Juice <i>Cocos nucifera</i> L for Bioethanol Production	
14.05 – 14.15	<b>SMR/O-004. Mia Rosmiati et al.</b> Sustainability Analysis of Dairy-Horticulture Integrated Farming System (A Case In Suntenjaya Village, West Bandung District, West Java, Indonesia)	
14.15 – 14.25	<b>Discussion</b>	
14.25 – 14.35	<b>SMR/O-005. Sari Narulita et al.</b> Religious Tourism and Utilization of Ablution Water Recycling (Case Study of Istiqlal Mosque)	<b>Moderator:</b> <b>Trianik Widyaningrum</b>
14.35 – 14.45	<b>SMR/O-006. Tien Lastini et al.</b> Estimation And Correlation Of Surian Leaves ( <i>Toona Sinensis</i> ) Weight With The Tree Dimensions In Private Forest	
14.45 – 14.55	<b>SMR/O-007. Yooce Yustiana et al.</b> Value Of The Benefits Hydrological Gunung Geulis Protected Forest As An Economic Product Of Ecosystem Services	
14.55 – 15.05	<b>Discussion</b>	
15.05 – 15.35	Coffee Break	



15.35 – 15.45	<b>SMR/O-001. Siti Oriza Salsijanti <i>et al.</i></b> Using Environmental Learning Models to Increase The Students' Productive Skills	<b>Moderator: Raden Darmawan</b>
15.45 – 15.55	<b>SMR/O-008. Agung Budiantoro <i>et al.</i></b> The Sustainable Ecotourism Potential Development With Special Reference to Oliveridley ( <i>Lepidochelys olivacea</i> ) Along Bantul Beaches, Indonesia	
15.55 – 16.05	<b>SMR/O-026. Ratna Purwaningsih <i>et al.</i></b> Assessment of Sustainability Status of Tourism Destination using Rap-tourism	
16.05 – 16.15	<b>Discussion</b>	
16.15 – 16.25	<b>SMR/O-009. Devi Dwi Siskawardani and Warkoyo.</b> Sweet Bread Chemical Properties Optimization Based on Baking Temperature and Duration	<b>Moderator: Agung Budiantoro</b>
16.25 – 16.35	<b>SMR/O-022. Raden Darmawan <i>et al.</i></b> Effect of Carbon Cloth Types and Addition of Sterile Molasses – Stillage on Electricity Production Using Microbial Fuel Cell	
16.35 – 16.45	<b>Discussion</b>	

#### Thursday, 5 September 2019

10.00 – 10.10	<b>SMR/O-010. Siti Khotimah <i>et al.</i></b> Density of soil biofertilizer bacteria on fibric peat in oil palm plantation area Kubu Raya District, West Kalimantan	<b>Moderator: Chomsin S Widodo</b>
10.10 – 10.20	<b>SMR/O-011. Syukria Ikhsan Zam <i>et al.</i></b> Nitrogen Sources Selection in Fermentation of Anti-phytopathogenic Compounds by <i>Bacillus subtilis</i> AAF2	

10.20 – 10.30	<b>SMR/O-012. Nur Muflihah <i>et al.</i></b> Analysis of the factors that impact product performance on responses market (Case study of home industry vegetable floss ‘Bonsay’ Jombang)	
10.30 – 10.40	<b>SMR/O-013. Talitha Widiatningrum <i>et al.</i></b> Identification of Bioactive Substances in Fresh and Dried Leaves Extract of <i>Saccharum officinarum</i> by using Gas Chromatography-Mass Spectrometry	
10.40 – 10.50	<b>Discussion</b>	
10.50 – 11.00	<b>SMR/O-014. Chomsin S Widodo <i>et al.</i></b> Effects of Heating on the dielectric properties of egg yolk and egg white of chicken ( <i>Gallus domesticus</i> )	<b>Moderator: Talitha Widiatningrum</b>
11.00 – 11.10	<b>SMR/O-015. Ardyah Ramadhina Irsanti Putri <i>et al.</i></b> Analysis of Boer Spermatozoa Quality in Different Incubation Periods and Medium for <i>In Vitro</i> Preparation	
11.10 – 11.20	<b>SMR/O-016. Debrina Puspita Andriani.</b> Parameters Optimization of Bio Composite Manufacturing Using Experimental Design	
11.20 – 11.30	<b>SMR/O-017. Fathul Aziz <i>et al.</i></b> The Utilization of <i>Syzygium polyanthum</i> Walp. Leaf and <i>Arcangelisia flava</i> Merr. Stem Extracts to Inhibit Coconut Sap Water Fermentation	
11.30 – 11.40	<b>Discussion</b>	
11.45 – 12.45	Lunch Break	
12.45 – 12.55	<b>SMR/O-018. Dewi Mustikaningtyas <i>et al.</i></b> Soybean Extract Supplementation on <i>Saccharomyces cerevisiae</i> Culture Media in Producing Glutathione	<b>Moderator: Umi Marwati</b>

12.55 – 13.05	<b>SMR/O-019. Dina Wahyu Indriani <i>et al.</i></b> Physicochemical Analysis of Taro ( <i>Colocasia esculenta</i> ) Flour on Water Contain and Milling Velocity using Pin Disc Mill	
13.05 – 13.15	<b>SMR/O-020. Wirdatun Nafisah <i>et al.</i></b> Combination of <i>Moringa oleifera</i> Extract and Albumin can Reduce Inflammatory Cytokine TNF $\alpha$ and IFN $\gamma$ and Lipid Retention in Steatohepatitis Mice Model	
13.15 – 13.25	<b>Discussion</b>	
13.25 – 13.35	<b>SMR/O-021. Umi Marwati <i>et al.</i></b> The Effects of Different Initial Substrate Concentration on Antioxidant Capacity of Leaf Infuse of <i>Moringa oleifera</i> during Lactic Acid Fermentation	<b>Moderator: Dewi Mustikaningty as</b>
13.35 – 13.45	<b>SMR/O-023. Saptini Mukti Rahajeng.</b> Formulation and Characteristic Evaluation of Corn Harvest Waste Based Paper	
13.45 – 13.55	<b>SMR/O-024. Sundari <i>et al.</i></b> Prospects For The Development and Analysis of Kenari Shell Biobriquette Product Business As an Alternative Fuel Based on Green Energy in North Maluku	
13.55 – 14.05	<b>Discussion</b>	
14.05 – 14.15	<b>SMR/O-025. Sulistya Rini Pratiwi <i>et al.</i></b> Economic Valuation of Critical Land	<b>Moderator: Saptini Mukti Rahajeng</b>
14.15 – 14.25	<b>SMR/O-027. Sri Nabawiyati Nurul Makiyah <i>et al.</i></b> Allergenic Activity of Steroid Saponins in <i>Dioscorea alata</i> L. Tubers In Silico	
14.25 – 14.35	<b>SMR/O-028. Nur Fitriana <i>et al.</i></b> Potential Compounds of <i>Curcuma xanthorrhiza</i> and <i>Curcuma zedoaria</i> as	

	Mortalin Inhibitor to Control Cancer Cell Growth Through Computational Study	
14.35 – 14.45	<b>Discussion</b>	

**Improvement of Herbal Research with Bioinformatics in Pharmacy Student Faculty of Pharmacy University of Surabaya**

**Marisca Evalina Gondokesumo<sup>(1)\*</sup>, Yulanda Antonius<sup>(2)</sup>, Oeke Yunita<sup>(1)</sup>**

*<sup>(1)</sup> Faculty of Pharmacy, University of Surabaya, Surabaya, Indonesia*

*<sup>(2)</sup> Faculty of Biotechnology, University of Surabaya, Surabaya, Indonesia*

*\*Corresponding email: mariscaevalina@gmail.com*

**ABSTRACT**

Improvement of Herbal Research with Bioinformatics in Pharmacy Student Faculty of Pharmacy University of Surabaya Marisca Evalina Gondokesumo<sup>1</sup>, Yulanda Antonius<sup>2</sup>, Oeke Yunita<sup>1</sup> <sup>1</sup>Faculty of Pharmacy, University of Surabaya, Surabaya, Indonesia <sup>2</sup>Faculty of Biotechnology, University of Surabaya, Surabaya, Indonesia **ABSTRACT** Bioinformatics is a combination of biological study and information engineering. It can be widely applied to various studies, especially in the medicinal study to explore the herbal medicine towards drug delivery. By knowing the benefits of various herbs, especially Indonesian endemic plants or plants with lack of function, bioinformatics acts as a mediator to increase the awareness of plant conservation. The pharmaceutical studies are closely related to the process of exploration of natural compounds for drugs development. However, the bioinformatics topic at the Faculty of Pharmacy University of Surabaya still needs to be improved due to the limited number of the lecture. Moreover, this topic is highly needed for pharmacist. Therefore, applicable learning and fun approach through the three golden stages of the workshop was conducted. It consisted of introduction, practice course, and deepening research application. In brief, 95 pharmacist students were addressed as a subject in this research. They were handed by questionnaire I (before workshop) and questionnaire II (after workshop) to measure the success rate of learning. Result showed that 72% student never know about bioinformatics but they have strong courage to learn which proved by high interest rate in bioinformatics (78%) and herbal exploration (72%), respectively. Most of student was actively engaged in every step of workshop by asking questions and directly practice for using the tools that specially directed for herbal exploration. In the end of workshop, the

interest rate of student to bioinformatics was reached 96%. It was in line with the understanding rate of the tools usage in advance research. Therefore, it concluded that the workshop with this three golden steps was successfully boosting not only the interest and skill of student in bioinformatics but also the awareness of herbal conservation. Keywords: Conservation, herbal medicine, post-questionnaire, pre-questionnaire, workshop