



International Conference on Biodiversity

Abs Sem Nas Konf Intl Masy Biodiv Indon
vol. 3 | no. 1 | pp. 1-53 | Jan 2016
ISSN: 2407-8069



Organized by



Selected manuscripts
will be available at

BIODIVERSITAS
Journal of Biological Diversity

Journal of Agricultural Science
AGRIVITA
NUSANTARA
BIOSCIENCE



ABSTRACT

INTERNATIONAL CONFERENCE ON BIODIVERSITY

SOCIETY FOR INDOONESIAN BIODIVERSITY

Balikpapan, 14-16 January 2016



ABSTRACT

INTERNATIONAL CONFERENCE ON BIODIVERSITY

SOCIETY FOR INDONESIAN BIODIVERSITY

Balikpapan, 14-16 January 2016

T H E M E :

**Heart of Borneo: the Conservation, Research and Sustainable use of
Biological Diversity in Borneo**

SECRETARIAT ADDRESS

1. Sekretariat Masyarakat Biodiversitas Indonesia, Kantor Jurnal Biodiversitas, Jurusan Biologi Gd. A, Lt. 1, FMIPA UNS, Jl. Ir. Sutami 36A Surakarta 57126. Tel. +62-813-8506-6018. Email: biodiversitas@gmail.com. Website: biodiversitas.mipa.uns.ac.id/S/2016/samarinda/home.html
2. Kantor UPT Layanan Internasional, Universitas Mulawarman. Gedung Pascasarjana Pertanian Tropika Basah Lt. 3 Universitas Mulawarman, Jln. Krayan Kampus Gunung Kelua, Samarinda 75123, Kalimantan Timur. Tel.: +62-812-5569-3222

Organized by



Selected manuscripts
will be available at

BIODIVERSITAS
Journal of Biological Diversity

AGRIVITA
Journal of Agricultural Science
**NUSANTARA
BIOSCIENCE**



TIME SCHEDULE

International Conference on Biodiversity

Society for Indonesian Biodiversity (SIB)

Balikpapan, Indonesia, 14-16 January 2016

TIME	ACTIVITIES	PERSON IN CHARGE	SITE
January 14, 2016			
08.00-09.00	Registration	Committee	Lobby
09.00-09.15	Speech of the Committee	Chairman of the committee	R0
09.15-09.30	Speech of the International Office	Head of International Office of the Mulawarman University	R0
09.30-09.45	Opening speech	Rector of the Mulawarman University	R0
09.45-10.00	Photo Session and Coffee Break	Committee	R0, Lobby
10.00-12.00	Panel 1 Dr. Jatna Supriatna Dr. Mark Rayment	Moderator: Dr. Rudianto Amirta	R0
12.00-13.00	Rest, prayer, lunch	Committee	Lobby
13.00-15.00	Parallel presentation I Group 1: AO-01 to AO-08 Group 2: AO-09 to AO-14, AP-01, BO-01 Group 3: BO-02 to BO-09 Group 4: BO-10 to BO-17 Group 5: BO-18 to BO-25	Moderator: Prof. Harsono Soepardjo Moderator: Prof. Marjenah Moderator: Prof. Lily S.E. Putri Moderator: Dr. Ruhyat Partasasmita Moderator: Dr. Farah Diba	R0 R1 R2 R3 R4
15.00-15.15	Coffee Break	Committee	Lobby
15.15-17.15	Parallel presentation II Group 6: BO-26 to BO-32, BP-01 Group 7: BP-02 to BP-08, CO-01 Group 8: CO-02 to CO-08 Group 9: CO-09 to CO-15 Group 10: CO-16 to CO-22	Moderator: Dr. Abinawanto Moderator: Dr. Rofandi Hartanto Moderator: Prof. Herny E.I. Simbala Moderator: Dr. Hapry F.N. Lapijan Moderator: Prof. Dirk Veplun	R0 R1 R2 R3 R4

January 15, 2016

08.00-09.00	Coffee break	Committee	Lobby
09.00-12.00	Panel 2 Prof. Dr. Wolfgang Nellen Prof. Dr. Mashhor Mansor Prof. Dr. Enos Tangke Arung	Moderator: Dr. Irawan W. Kusuma	R0
12.00-13.00	Rest, prayer, lunch	Committee	Lobby
13.00-15.00	Parallel Presentation III Group 11: CO-23 to CO-29 Group 12: CP-30, DO-01 to DO-06 Group 13: DO-07 to DP-02 Group 14: DP-03, EO-01 to EO-06 Group 15: EO-07 to EO-13	Moderator: Cahyo Prayogo, Ph.D. Moderator: Dr. Onrizal Moderator: Dr. Hery Sutejo Moderator: Dr. Taufan Tirkaamiana Moderator: Dr. Khairul A.A. Rahim	R0 R1 R2 R3 R4
15.00-15.15	Coffee Break	Committee	Lobby
15.15-17.15	Parallel Presentation IV Group 16: EO-14 to EO-20 Group 17: EO-21 to EO-27 Group 18: EO-28 to EO-34 Group 19: EO-35 to EO-39, EP-01, EP-02 Group 20: EP-03 to EP-09	Moderator: Dr. Gusti Hardiansyah Moderator: Dr. Suyadi Moderator: Prof. Iwan Suyatna Moderator: Prof. Johan Iskandar Moderator: Dr. Sutawi	R0 R1 R2 R3 R4
17.15-17.30	Closing speech and other explanations	Chairman of the committee	R0

January 16, 2016

08.00-09.00	Trip to Bukit Bangkirai, Samboja	Committee	-
09.00-12.00	Natural tourism at Bukit Bangkirai (canopy trail)	Committee	-
12.00-13.00	Rest, prayer, lunch	Committee	-
13.00-14.30	Shopping time	Committee	-
13.00-15.00	Back to Sepinggan Airport, Balikpapan	Committee	-
15.00	Sepinggan Airport, Balikpapan	Committee	-

Upcoming event: International Conference on Biodiversity, Yogyakarta, Indonesia, 18-19 March 2016

TABLE OF CONTENTS
International Conference on Biodiversity
Society for Indonesian Biodiversity (SIB)
Balikpapan, Indonesia, 14-16 January 2016

CODE	TITLE	AUTHOR(S)	PAGES
	Genetics diversity		
AO-01	Genetical diversity study of Stomatopoda (mantis shrimp) in Tangerang shallow water, Banten	Abinawanto, Eko Burhanuddin, Jatna Supriatna, Wisnu Wardhana	1
AO-02	Genetic diversity, population structure and aquaculture of short-fin eel <i>Anguilla bicolor</i> McClelland, 1844 in Indonesia	Melta Rini Fahmi	1
AO-03	Genetic diversity of Kalimantan swamp buffalo (<i>Bubalus bubalis</i>): Inferences on phenotypic and characteristics the region of domestication	Surya Nur Rahmatullah	2
AO-04	Phenotypic variation in male local chicken at District of Tapin, South Kalimantan	Surya Nur Rahmatullah, Lisa Wardah, Abrani Sulaiman	2
AO-05	Phalangeridae species identification based on 16S rRNA gene sequences	Elizabeth Novi Kusumaningrum	2
AO-06	Analysis proportion out-crossing and self-crossing ebony (<i>Diospyros celebica</i>) provenance Lasitae Barru, South Sulawesi	Andi Hardianti, Joni Ringgi Allo, Iksan lahusen, Selvina, Jihan Nanda	3
AO-07	Redefining dispersal boundaries of <i>Siganus fuscescens</i> in the Coral Triangle Area	Ni Putu Dian Pertiwi, Chloe Henderson, Nur Ismu Hidayat, Paul H. Barber	3
AO-08	A genotype-dependent effects of cold pre-treatment duration and putrescine enriched medium to the anther culturability of local upland rice varieties from East Kalimantan	Nurhasanah, Ananda Nuryadi Pratama, Widi Sunaryo	3
AO-09	Responses of the <i>Arabidopsis</i> KNOX and boron transport gene mutants against the deficiency and overdose of boron nutrient	Widi Sunaryo, Nurhasanah	4
AO-10	Is <i>Dendrobium</i> Sw. section <i>Spathulata</i> Lindl. monophyletic: Insight from ITS and xdh nuclear gene markers?	Agustina Y.S. Arobaya, Ashley R. Field, Darren M. Crayn, Katharina Schulte, Paul Gadek	4
AO-11	Preliminary study of reproduction of Nile Tilapia Fillet of Wanayasa Race (Nirwana) by the production of male	Ayi Yustiati	4

AO-12	Identification of growth hormone gene variation in exon region at Indonesian local cattle based on PCR-SSCP method	Surya Nur Rahmatullah, Jakaria, Ronny R. Noor	5
AO-13	Biodiversity of gaga chicken from Sidrap (Sidenreng-Rappang), South Sulawesi based on correlation the bioacoustic analysis and morphometric study	Pipih Suningsih Effendi, Abinawanto	5
AO-14	Comparative phylogenetics based on displacement loop (D-loop) region of mtDNA offer new insights into the biogeographic history of Sulawesi Black Macaque (<i>Macaca nigra</i>)	Hapry F.N. Lapian	5
AP-01	Sequence-Related Amplified Polymorphism (SRAP) analysis for studying genetic characterization of <i>Bouea macrophylla</i>	Sombhat Kaewpongumpai, Supattra Poeaim, Ongkarn Vanijajiva,	6
Diversity of species			
BO-01	Current status of giant freshwater prawn (<i>Macrobrachium rosenbergii</i>) in Malaysia	Khairul Adha A. Rahim, Faznur Fateh Nicholas, Shabdin Mohd Long, Awangku Shahrir Naquiuddin	6
BO-02	Leaf diseases on <i>Eucalyptus pellita</i> F. Muell in forest plantation	Iin Arsensi, Djumali Mardji	6
BO-03	Crops species in community forest of the Sungai Wain Protected Forest, East Kalimantan	Hery Sutejo, Mustofa Agung Sardjono, Abubakar M. Lahjie, Afif Ruchaemi	7
BO-04	Improvement of coal mining soil treated with top soil and fertilizer	Sopialena, Rosfiansyah, Surya Sila	7
BO-05	Floristic dynamics of tree species at different ages of secondary forest in Sabai, Sarawak	Karyati, Isa B. Ipor, Ismail Jusoh, Mohd. Effendi Wasli	7
BO-06	Productivity of Rutai Banana Plant (<i>Musa</i> sp.) through NPK Phonska fertilizer and organic fertilizer application in Kutai Kartanegara, East Kalimantan	Purwati, Iin Arsensi	8
BO-07	Biodiversity of heavy metals resistant microorganism on activated sludge from Wastewater Treatment Plant in Rungkut, Surabaya, East Java	Wahyu Irawati, Salomo Christian, Triwibowo Yuwono,	8
BO-08	Tropical peatland tree species diversity altered by forest degradation	Dwi Astiani	9
BO-09	Species diversity of cerambycid beetles at reclamation area of PT. Berau Coal, East Kalimantan	Sugiarto, Chandradewana Boer, Djumali Mardji	9
BO-10	<i>Fusarium</i> as endophyte of some terrestrial orchid from Papua	Supeni Sufaati, Verena Agustini, Suharno	9
BO-11	Qualitative determination of secondary metabolic compounds and macro nutrients some botanical pesticide plants of East Kalimantan	Ince Raden, Suyadi, Thamrin	10
BO-12	Plant diversity after 16 years post minning at East Kalimantan	Liris Lis Komara, Tati Suryati Syamsudin, Devi Nandita Choesin	10
BO-13	Identification of gaharu tree (<i>Aquilaria malacensis</i>) and gaharu oil distillation process as the local content Included In 21st century curricullum on the subject of high level botany	Herliani	10

BO-14	Feature of cross section, hardness, and spesific gravity some petrified wood from Loa Janan, Kutai Kertanegara, East Kalimantan	Nani Husein, Agus Sulistyo Budhi, Gandhi	11
BO-15	Inventory of native orchids in Lanny Jaya, Papua	Verena Agustini, Lisye Zebua, Nelly Lunga	11
BO-16	Rhizoctonia-like fungi isotated from roots of <i>Dendrobium lancifolium</i> A. Rich var. <i>Papuanum</i> and <i>Calanthe triplicate</i> (Willem) Ames in Papua	Verena Agustini, Supeni Sufaati, Suharno, Nuttika Suwannasai	11
BO-17	The new record of five species brachiuran crabs from Mahakam Delta estuary, East Kalimantan, Indonesia	Stepanus Alexander Samson	12
BO-18	Wildlife diversity in Karst Forest Ecosystem of Mangkaliat Peninsula, East Kalimantan, Indonesia	Heru Herlambang, Nantana Gajaseni, Pongchai Dumrongrojwatthana	12
BO-19	Biodiversity and carbon stock in Siawan Belida peat swam forest of Kapuas Hulu, West Kalimantan, Indonesia	Gusti Hardiansyah, Erianto, Hendarto, M Idham, Iswan D, Zuhry H, Sigit N	12
BO-20	Utilization of forage under palm oil plantation for beef cattle maintenance at Paser, East Kalimantan	Taufan P. Daru, Ibrahim	12
BO-21	The need to develop diversity based sustainable management for seagrass ecosystem at Karimunjawa National Marine Park	Johan Danu Prasetya, Ambariyanto, Supriharyono, Frida Purwanti	13
BO-22	Diversity of leiognathidae fish community in high temperature waters around Bontang Industrial Estate	Iwan Suyatna, A. Syafei Sidik, Ismail Fahmy Almadi, Samsul Rizal, Komsanah Sukarti	13
BO-23	Diversity of kelulut species (<i>Trigona</i> spp.) in Mulawarman University Education Forest Samarinda, East Kalimantan	Syafrizal, Mappatoba Sila, Djumali Marji, Achmad Ariffien Bratawinata	14
BO-24	Munaan: a traditional fruit garden of Benuaq and Tunjung Dayaks tribes in West Kutai, East Kalimantan,Indonesia	Paulus Matius, Santoso Jaya Mudita Tjwa, Mira Raharja, Sapruddin, Silviana Noor, Yunita, Hastaniah, Sri Sarminah	14
BO-25	Flowering, fruiting, seed germination and seedling growth of <i>Macaranga gigantea</i>	Dwi Susanto, Daddy Ruchiyat, Maman Sutisna, Rudianto Amirta	14
BO-26	Study on nudibranch distribution along depth gradient in Takat Palapa, Situbondo, East Java	Linda Novita Sari, Farid Kamal Muzaki, Apriliana Mutia Dewi, Bambang Irawan, Agoes Soegianto	15
BO-27	Population structure of mangrove crab <i>Scylla oceanica</i> in mangrove ecosystem of Tanjung Lesung, Banten, Indonesia	Titing Pudiawati, Mufti P. Patria	15
BO-28	Morphological variations of <i>Meristogenys</i> (Anura: Ranidae) from Kalimantan	Najmi Firdaus, Djoko T. Iskandar	15
BO-29	Plant diversity and energy potency from community forest wood species in East Kalimantan, Indonesia: Searching for suitable wood species for energy feedstock	Rudianto Amirta, Yuliansyah, Eddy Mangopo Angi, Bambang Rudy Ananto,Budhi Setiyono, Muhammad Taufiq Haqiqi, Helmi Alfath Septiana, Marter Lodong	16
BO-30	Morphological identification of Nunukan chickens as germplasm preservation in East Kalimantan	Arif Ismanto, Muh. Ichsan Haris	16

BO-31	Diversity of plants from Yamor Lake in Kaimana, West Papua, Indonesia	Bernadetta M.G. Sadsoeitoeboen, Fransina F. Kesaulija, Hermanus Warmetan	16
BO-32	Diurnal birds living in Yamor Lake of Kaimana District of the Bird Head Area of Papua	Hermanus Warmetan, Fransina F. Kesaulija, Bernadetta M.G. Sadsoeitoeboen	17
BP-01	The age structure of nypa palm worm <i>Namalycastis rhodochorde</i> (Polychaeta: Nereididae) in Kapuas Estuarine, West Kalimantan	Tri Rima Setyawati, Ari Hepi Yanti, Mukarlina, Junardi	17
BP-02	Explorative inventory of plants diversity of tropical wet highland in Mount Seblat, Bengkulu: An ex situ conservation effort	Imawan Wahyu Hidayat, Ikhsan Noviady, Yati Nurlaeni	17
BP-03	Existence of bats In Mount Walat Education Forest, Sukabumi, West Java	Adheliya Setyorini, Sasti Regi Bintari	17
BP-04	Introducing lichen flora of few parts of Malaysian Borneo	Rindita	18
BP-05	Structure of vegetation and species diversity on difference aged of after logged over forest area	Rita Diana, Paulus Matius, Sutedjo, Raharjo Ari Suwasono	18
BP-06	Diversity of predator of paddy plant pests on paddy field that managed by integrated pest management in South Kalimantan	Samharinto Soedijo, M. Indar Pramudi	18
BP-07	Diversity of orchid from Arfak Mountain Nature Reserve of West Papua, Indonesia	Agustina Y.S. Arobaya, Antoni Ungirwalu, Bernadetha M.G. Sadsoeitoeboen, Dina Arungpadang, Endra Gunawan, Erna C.M. Susanti, Fransina F. Kesaulija, Jimmy F. Wanma, Susanti Tasik, Max J. Tokede, Zulfikar Mariadi, Elieser Sirami	19
BP-08	The potential of Ranggawulung Urban Forest, Subang, West Java, Indonesia as a bird habitat	Dasumiati, Lily Surayya E. Putri, Walid Rumblat, Fahri Fahrudin, Achmad Jaelani, Laksmana Putra Leuvinadrie, Eka Adhi Mulyono	19
Diversity of ecosystems			
CO-01	Dayak Desa Forest Land Use System as social capital to acquire forest management rights	Emi Roslinda	19
CO-02	Mitigation of mercury contamination through the acceleration of vegetation succession	Wiwik Ekyastuti, Eny Faridah, Sumardi, Yadi Setiadi	20
CO-03	The diversity of Pekarangan Agroforestry in the middle stream Karang Mumus Watershed, East Kalimantan	Penny Pujowati, Hadi Pranoto	20
CO-04	The influence of harvested area on rice production of dryland paddy farming in East Kalimantan, Indonesia	Karmini	20
CO-05	Diversity, vegetation structure and C stocks of inundated riparian forest protected from conversion to oil palm in Central Kalimantan	Cahyo Prayogo, , Risky Maulana Ishaq, Muhammad Khoirul Anwar, Didik Suprayogo, Widiyanto, Rika Ratna Sari, Choirul Anshori, Yudha Asmara, Bandung Sahari, Kurniatun Hairiah	21

CO-06	Role of nearest remnant forest as source of seeds during forest recovery after fire in East Kalimantan	Subekti Rahayu, Meine van Noordwijk, Sambas Basuni, Agus Priyono Kartono, Agus Hikmat	21
CO-07	Plankton fertility in supporting fish productivity in monotonous swamps in Hulu Sungai Utara, South Kalimantan	Pahmi Ansyari, Slamet	22
CO-08	Empirical reflection on the management of natural resources biodiversity conservation in Meru Betiri National Park on the implementation of REDD+ Program as a learning program in the implementation of REDD+ in the Betung Kerihun National Park and Danau Sentarum National Park, Kapuas Hulu	Dewi Gunawati	22
CO-09	The analysis of plant biodiversity and cropping pattern of agroforestry system in Karang Mumus Watershed, East Kalimantan	Hadi Pranoto, Penny Pujowati	22
CO-10	The role of plant parasitic nematodes on agricultural ecosystem productivity in East Kalimantan	Suyadi, Rosfiansyah	23
CO-11	Wood density as a proxy for tree functional group recovery after forest disturbance in lowland forest of East Kalimantan, Indonesia	Sidiq Pambudi, Subekti Rahayu	23
CO-12	Dissolved Oxygen Budget on silvofishery pond in Mahakam Delta	Ismail Fahmy Almadi, Supriharyono, Azis Nur Bambang	23
CO-13	Stakeholder analysis on REDD+ Program in West Kalimantan	Gusti Hardiansyah, Emi Roslinda, Fahrizal, Farah Diba	24
CO-14	Rehabilitation works of mined forest lands toward degraded forest ecosystem recovery in Kalimantan, Indonesia	Triyono Sudarmadji, Wahjuni Hartati	24
CO-15	Soil texture diversity and C-organic content correlations as indicator of potential mined lands recovery in East Kalimantan, Indonesia	Wahjuni Hartati, Triyono Sudarmadji	25
CO-16	How to conserve a big mammals in the tropical rain forest of Kalimantan?	Chandradewana Boer, Alber L. Manurung	25
CO-17	A high biodiversity of Benuaq Dayaks Rattan Gardens, East Kalimantan	Paulus Matius, Albert Reif	25
CO-18	Site conditions, growth and leaf nutrient status of <i>Macaranga gigantea</i> in secondary forest of East Kalimantan	Dwi Susanto, Daddy Ruchiyat, Maman Sutisna, Rudianto Amirta	26
CO-19	Characterization of 15 species of tropical wood biomass for ethanol production	Rudianto Amirta, Dwi Susanto, Yuliansyah, Retno Wulandari, Takashi Watanabe	26
CO-20	Diversity and comparative characterization of <i>Macaranga</i> species collected from secondary forests in East Kalimantan for biorefinery of unutilized fast growing wood	Rudianto Amirta, Syaffiya Isnu Nafitri, Retno Wulandari, Yuliansyah, Krishna Purnawan Candra, Takashi Watanabe	26
CO-21	Influence of planting line width on the increment of <i>Shorea leprosula</i> at selective logging line planting system in logging concession of Balikpapan Forest Industries (BFI), East Kalimantan, Indonesia	Taufan Tirkaamiana, Ruchaemi	27
CO-22	Community structure and litterfall of mangrove ecosystem in Tanjung Lesung, Banten, Indonesia	Eka Sari Nurhidayati, Mufti Petala Patria	27

CO-23	The role of molluscs community in sustaining the function of mangrove forest in Tanjung Lesung, Pandeglang, Banten	Nur Rohmatin Isnaningsih, Mufti Petala Patria.	28
CO-24	Improving urban ecological environments through Biodiversity Parks: Lessons learned from working with the Aqua Danone Group	Hendra Gunawan, Sugiarti	28
CO-25	Kalimantan Aroid's conservation in Eka Karya Bali Botanic Garden	Ni Putu Sri Asih, Dewi Lestari, Tri Warseno, Agung Kurniawan	29
CO-26	Presence of <i>Eusideroxylon zwageri</i> (iron wood) in difference slope condition at Mulawarman University Botanical Garden, East Kalimantan, Indonesia	Rizki Nur Oktavianto, Arianto, Muhammad Taufiq Haqiqi, Ahmad Mukhdlor, Rudianto Amirta	29
CO-27	Expansion of <i>Acacia nilotica</i> stand in Bekol Savanna, Baluran National Park, East Java, Indonesia through remote sensing and field observations	Sutomo, , Eddie van Etten, Luthfi Wahab	29
CO-28	Species distribution of selaginellas in Java, Indonesia	A.D. Setyawan, , J. Supriatna, D. Darnaedi, Rokhmatuloh, Sutarno, Sugiyarto, P. Pradhan, I. Nursyamsi	30
CO-29	Micro-algal bloom causing mass mortality of fish in Lampung Bay, Indonesia	Tumpak Sidabutar	30
CP-30	Mangrove forest exploration of Tambelan Islands: Species composition, mapping of mangrove forest distribution and potential threat	Yahya Ihya Ulumuddin, Ahmad Dwi Setyawan,	30
Ethnobiology			
DO-01	Karangwangi people's (South Cianjur, West Java, Indonesia) local knowledge of hunting animal wildlife	Ruhyat Partasasmita, Johan Iskandar	31
DO-02	Ethnobotanical study of herbal medicine in Ranggawulung Urban Forest, Subang District, West Java, Indonesia	Lily Surayya Eka Putri, Dasumiati, Kristiyanto, Mardiansyah, Chairul Malik, Laksamana Putra Leuvinadrie, , Eka Adhi Mulyono	31
DO-03	Antibacterial activity of <i>Boesenbergia pandurata</i> , <i>Zingiber zerumbet</i> and <i>Solanum ferox</i> extracts against two fish pathogens, <i>Aeromonas hydrophila</i> and <i>Pseudomonas</i> sp.	Esti Handayani Hardi, Irawan Wijaya Kusuma, Wiwin Suwinarti, Agustina	32
DO-04	Responses to environmental and socio-economic changes in the Karangwangi Traditional Agroforestry System, South Cianjur, West Java	Johan Iskandar, Budiawati Supangkat Iskandar,	32
DO-05	Ethnobotany in traditional ceremony of Naga Tribe, Neglasari Village, Sub-district of Salawu, Tasikmalaya District, West Java	Nurkholis Abellian Pristi, Dasumiati, Iwan Aminudin	33
DO-06	Medicinal herbs biodiversity of Bogani ethnic in Bolaang Mongondow, North Sulawesi	Herny Emma Inonta Simbala, Edwin de Queljoe,	33
DO-07	Ethnobotany of medicinal plants in the Arfak Mountains	Susilo Budi Husodo, Enos Tangke Arung, Edi Budiarmo, Irawan Wijaya	33
DO-08	Research of medicinal plant biodiversity of the Dani tribe of Baliem Valley in Jayawijaya District, Papua	Dirk Veplun, Herny Simbala, Juliana Mabel	34

DO-09	The potential of understorey plants from Gunung Gede Pangrango National Park as cervixs anticancer agents	Yanieta Arbiastutie, Djoko Marsono, Mae Sri Hartati, Rishadi Purwanto	34
DO-10	Ethnopharmacological study on Traditional Knowledge of Medicinal Plants used in community at Sekabuk Village, West Kalimantan, Indonesia	Yui Hashimoto, Fathul Yusro, Yeni Mariani, Farah Diba, Kazuhiro Ohtani	35
DO-11	Biodiversity of non timber forest product in secondary forest of West Kalimantan	Farah Diba	35
DP-01	Dynamics of forest communities' livelihood strategies in a changing socio-economic environment: Its implications from gender perspectives in Paser District, East Kalimantan	Setiawati, Ketut Gunawan	35
DP-02	Growth and results of several superior variety of soybean on dryland in Parigi Moutong District, Central Sulawesi	Saidah, Yakob B. Tumanan, Syafruddin	36
DP-03	The power of yields of Inpari 13 rice variety in Sigi District of Central Sulawesi	Saidah, Syamsyiah Gafur, Yogi P.	36

Bioscience

EO-01	Goramy spermatozoa quality after sub-zero freezing: The role of coconut water as the extender	Abinawanto, Pramita Eka Putri	37
EO-02	Efficacy tests for <i>Trichoderma</i> sp. as control to foot rot disease on pepper plants	Yazid Ismi Intara , Etnawati , Supriyadi , M. Kahfi , Mulyadi	37
EO-03	Phenotypic detection of extended spectrum betalactamases in bacterial isolates from meat products sold within Kaduna Metropolis in Nigeria	Muhammad Yusha'u, Muhammad Idris Umar	37
EO-04	Utilization of clay to improve the strength properties of wood	Taman Alex, , Edy Budiarmo, Irawan W Kusuma, Enos Tangke Arung,	38
EO-05	Biosorption of lead using macroalgae <i>Eucheuma spinosum</i> , <i>Padina minor</i> and <i>Sargassum crassifolium</i> in aqueous solution	Lily Surayya Eka Putri	38
EO-06	Impact of mono-cable winch and bulldozer system on biodiversity in forest harvesting	Yosep Ruslim, Ruspita Sihombing, Yason Liah	38
EO-07	Antioxidant and toxicity properties of anthocyanin extract from several fruit and flower	Harlinda Kuspradini, Anindya Marshabella Rosiarto, Irawan Wijaya Kusuma	39
EO-08	Antimicrobial potency of <i>Carica papaya</i> , <i>Ipomoea aquatica</i> , <i>Alpinia galanga</i> , and <i>Piper betle</i> on the invitro growth of the aquatic microbes	Gina Saptiani, Esti Handayani Hardi, Catur Agus Pebrianto, Agustina, Fikri Ardhani	39
EO-09	Phytochemical screening and antioxidant activity of selekop (<i>Lepisanthes amoena</i>) fruit	Heriad Daud Salusu, Agen, Farida Ariyani, Edy Budiarmo, Irawan Wijaya Kusuma, Enos Tangke Arung	39
EO-10	Potential advantages of ruminant livestock in Kalimantan	Sutawi	40
EO-11	Climate change mitigation: The potential of palm oil waste as a source of raw material of solar cell	Gusti Hardiansyah, Mariana B. Malino	40

EO-12	The characteristic of chemical LMO solution of shrimp shell wastes, fish wastes, water hyacinth and its application to empty fruit bunch of palm oil compost	Nurul Puspita Palupi, Nik'matul Jannah Akhsan, Roro Kesumaningwati	40
EO-13	The respiration rate, sugar and acid content of some tropical fruits and vegetables during modified atmosphere storage	Rofandi Hartanto, Sri Liswardani	41
EO-14	Nutrient content of golden snail, cow manure, bamboo root, and banana peel local microorganism as a standardized nutritious organic liquid fertilizer	Roro Kesumaningwati, Nurul Puspita Palupi, Nik'matul Jannah Akhsan	41
EO-15	Land reclamation of coal post-mining to increase the productivity in Kutai Kartanegara, East Kalimantan	Thamrin, Ince Raden	41
EO-16	Potential fast growing species from plantation forest as raw material for bioethanol production	Wiwin Suwinarti, Rudianto Amirta	42
EO-17	Potency of bioarang briquette with materials from cassava peels and slugge of wastewater treatment plant	Nita Citrasari, Tety Ariani Pinantih, Eko Prasetyo Kuncoro, Enny Zulaika	42
EO-18	Genetic diversity analysis of local rice cultivars in Penajam Paser Utara and Paser Districts in East Kalimantan and identification of its genetic potency	Nurhasanah, Sadaruddin, Widi Sunaryo	42
EO-19	Nutritional optimation for <i>Chlorella</i> and <i>Dunaliella</i> mass culture	Muhammad Zainuri, Hermin Pancasakti Kusumaningrum, Sunaryo	43
EO-20	Wood decay evaluation of <i>Macaranga gigantea</i> and <i>Macaranga tanarius</i> against <i>Trametes</i> sp. fungus	Erwin, Dian Setiawati, Agus Sulistyobudi	43
EO-21	Improving the ex-coal mining land due to Boron deficiency problem to increase land productivity in East Kalimantan	Widi Sunaryo, Rahmat Sutarto, Sylvia Darman, Nurhasanah	43
EO-22	Increasing of genetic variation of rice (<i>Oryza sativa</i>) by Gamma Ray radiation	Ahmad Yunus, Samanhudi, Sulanjari, Fitri Masrurroh	44
EO-23	Water quality improvement of nile tilapia and catfish polyculture in aquaphonic system	Zahidah, Irfan Zidni, Yuli Andriani	44
EO-24	Average daily gain of tilapia (<i>Oreochromis niloticus</i>) fed with fermented <i>Lemna</i> sp. meal	Rostika R., Y. Andriani, A.H. Abram	44
EO-25	The effect of biochar, cocopeat and saw dust compost on the growth of two dipterocarps seedlings	Marjenah, Kiswanto, Sri Purwanti, Fenny Putri Mariani Sofyan	45
EO-26	The growth of <i>Shorea leprosula</i> in the nursery site using post-mining soil mixed with biochar of palm-oil waste	Ribka Mei Lisdianti, Kiswanto, Marjenah	45
EO-27	Nutritional content and growth performance Tubifex cultured with different animal wastes and probiotic bacteria	Vivi Endar Herawati, , Ristiawan Agung Nugroho, Fahmi Arifan, Johannes Hutabarat, Darmanto	45
EO-28	Growth performance, survival and biomass production of Vanname larva fed <i>Artemia</i> sp. local product fresh, frozen and preserves	Johannes Hutabarat, Ristiawan Agung Nugroho, Darmanto, Vivi Endar Herawati,	46
EO-29	Seminal plasma and spermatozoa characteristics of Nunukan Rooster	Fikri Ardhani	46
EO-30	Formula development of mangosteen (<i>Garcinia mangostana</i>) pericarp ethanolic extract into anti dandruff shampoo dosage	Supomo, Husnul Warnida, Hendro Prayugo	46
EO-31	Utilization of cassava (<i>Manihot utilisima</i>) skin and prawn shells as bioplastic material	Dasumiati, Nanda Saridewi,	47

EO-32	Phytochemicals analysis and antimicrobial properties of <i>Shorea leprosula</i> (Dipterocarpaceae)	Sudrajat, Dwi Susanto	47
EO-33	Search for biological activities from an invasive shrub species rose myrtle (<i>Rhodomyrtus tomentosa</i>)	Irawan Wijaya Kusuma, Nurul Ainiyati, Wiwin Suwinarti	47
EO-34	Relationship between body length and dry weight of soil fauna as an ecosystem engineers in smallholder cocoa plantation	La Ode Muhammad Harjoni Kilowasid, Hilda Ayu Melvi Amalia, Jamili, Hasbullah Syaf, Asrul Sani	48
EO-35	Effects of administration of ‘Pinang Yaki’ (<i>Areca vestiaria</i>) extract on the quality of spermatozoa of male rats	Herny Emma Inonta Simbala, Edwin de Queljoe	48
EO-36	Isolation and identification phenolic compound from <i>Anacardium occidentale</i> leaf extract	Belgis, Taslim Ersam, Sri Fatmawati	49
EO-37	Compression perpendicular to grain of three wood species	Isna Yuniar Wardhani	49
EO-38	The enhancement in comprehension for the younger generation of school age in conducting biodiversity conservation in Harapan Island and Tidung Island, Seribu Islands	Harsono Soepardjo, Tuty Handayani, Riani Widiarti, Fika Afriyani, Eko Burhanuddin	49
EO-39	Popimorphism mannose binding lection of Indonesian origin	R. Puspitaningrum, R. Amelia, Y.R. Dewahrani, D.A. Putri	50
EP-01	Evaluation of antioxidant activity as a function of the genetic diversity of <i>Canna indica</i> complex (Cannaceae)	Atiya Rattanapittayaporn, Ongkarn Vanijajiva,	50
EP-02	The use of water plants in South Kalimantan as lowering salinity water levels consumption	Arief Rakhmad Budi Darmawan	50
EP-03	Utilization agricultural waste in biodiesel preparation: A review	Noor Hindryawati, Dzulkarnain	51
EP-04	The effect of density fishes ratio on plant water productivity in aquaphonic fish farming system	Yuli Andriani, Zahidah, Irfan Zidni	51
EP-05	The effect of extract organic fertilizer <i>Leucaena leucocephala</i> ’s to <i>Allium chinense</i> ’s insect pest attack at Pampang, Samarinda, East Kalimantan	Sonja V.T. Lumowa, Martha Fitriyani	51
EP-06	Antiplasmodial activity of isoprenylated flavanones from the leaves of <i>Macaranga pearsonii</i>	Eva Marlina, , Tjitjik Srie Tjahjandarie, Mulyadi Tanjung	52
EP-07	The effect of artificial feed containing <i>Sargassum</i> seaweed and commercial feed on the growth of milkfish reared with aquaponic system	Titi Soedjiarti, Mufti Petala Patria, Titin Siswantining	52
EP-08	Chitosan coating unreduced microbial contamination, but enhanced growth and development of hydrogel embedded protocorm like bodies (synthetic seed) of <i>Phalaenopsis amabilis</i> , Orchidaceae	Ari Pitoyo, Suratman, Lintang Amilatun Nafisah	52
EP-09	In vitro regeneration induction of “Kepok Kuning” banana in East Kalimantan	Ratna Nirmala	52

BO-11

Qualitative determination of secondary metabolic compounds and macro nutrients some botanical pesticide plants of East Kalimantan

Ince Raden^{1,✉}, Suyadi², Thamrin¹

¹ Faculty of Agriculture, Kutai Kartanegara University, East Kalimantan, Indonesia

Jl. Gunung Kombeng, No. 27, Tenggarong, 75513, East Kalimantan, Indonesia, ✉email: irad_unikarta@yahoo.com

² Department of Agrotechnology, Faculty of Agriculture, Mulawarman University. Jl. Paser Balengkong, Gunung Kelua, Samarinda Ulu, Samarinda-75123, East Kalimantan, Indonesia.

Existence of natural alternative inputs for crop husbandry was considered as important resources of good agricultural practices to attend an environmental friendly agricultural management. Pest control and soil fertility management were two main problems of agricultural development in East Kalimantan. However, there are numerous potential plants for botanical pesticide used native in East Kalimantan, and those plants also containing sufficient macro nutrients which beneficial as liquid fertilizer. This study aims to determine various secondary metabolic compounds and macro nutrients content of six botanical pesticide plants, i.e. marigold (*Tagetes erecta* L.), nimtree (*Azadirachta indica* L.), sweet flag (*Acorus calamus* L.), bratawali (*Tinospora crispa* L.), soursop (*Annona muricata* L.), and golden trumpet vine (*Allamanda cathartica* L.). Some laboratory analysis were implemented in the study, variables used to determine secondary metabolic compounds were flavonoids, steroids, alkaloid, tannins, triterpenoids, saponins. While, variables used to determine macro nutrients were nitrogen, phosphorus, and potassium. Results showed that all six botanical pesticides evaluated in this study were containing potential secondary metabolic compounds (SMC), soursop leaves containing three kinds of SMC (flavonoids, steroid, and tannin), whereas golden trumpet vine leaves only containing one kind of SMC (tannin), and the other four botanical pesticides (marigold, nimtree, sweet flag, and bratawali) containing two kinds of SMC (flavonoids and tannin). Furthermore, based on macro nutrients content analysis, marigold was the best candidate for liquid fertilizer source followed by nimtree, soursop, and sweet flag.

Botanical pesticide, bratawali, macro nutrient, marigold, nimtree, soursop, sweet flag

BO-12

Plant diversity after 16 years post minning at East Kalimantan

Liris Lis Komara[✉], Tati Suryati Syamsudin, Devi Nandita Choesin

School of Life Sciences and Technology, Institut Teknologi Bandung. Jl. Ganesha 10 Bandung, West Java, Indonesia. ✉email: liskomara@yahoo.co.id

Reclamation is a restoration process refers to reinstatement of the (pre-mining) ecosystem in all its structural and functional aspects including species diversity. The study objectives were to evaluate plant diversity after 16 years revegetation activities in the reclamation area of east Borneo. Plant diversity, similarity and Important Value Index (IVI) were compared between revegetated area and unmined area. 20 plots made in transect to evaluated the presence of its vegetation. 134 woody species were recorded unmined area consist of 1 non local spesies (*Acacia mangium*) and 133 local species. 76 woody species which recorded in reclamation area consist of 25 non local species (such as *Acacia mangium*, *Cassia siamea*, *Paraserianthes falcataria*, etc) and 51 local species (such as *Dryobalanops aromatic*, *Eusideroxylon zwagery*, *Macaranga gigantea*, etc). 25 non local species and 35 local species were planted by the company but 16 woody species (21,05%) were grow spontaneously (such as *Leucena glauca*, *Lansium domesticum*, *Shorea leavis*, etc). this result suggests that only a few naturally occurring plant species of east borneo can adapt to reclamation area soil condition. Its about 81 woody species that exist in unmined area should be planted in reclamation area to restore its species diversity.

Biodiversity, herbs, trees, vegetation, woody

BO-13

Identification of gaharu tree (*Aquilaria malaccensis*) and gaharu oil distillation process as the local content Included In 21st century curricullum on the subject of high level botany

Herliani

Department of Biology Education, Faculty of Teacher Training and Education, University Mulawarman. Jl. Muara Pahu, Gunung Kelua, Samarinda Ulu, Samarinda-75123, East Kalimantan, Indonesia. Tel./Fax.: +62-541-743929, ✉email: ellieherliani@gmail.com

Gaharu trees (*Aquilaria malaccensis*) belong to the Spermatophyta division, Angiospermae sub division, and Dicotyledoneae class. It is categorized as non-timber forest commodity which has high economic value in East Kalimantan. As a valuable forest commodity, gaharu has been used as a basic ingredient for perfumes, myrrhs, cosmetics and medicines. Gaharu tree is the most potential type of gaharu tree. Based on the subject of high level botany as included in the 21st century curriculum, students are encouraged to observe any local wisdom, including the identification of gaharu tree. The purposes of this study are to recognize students' concept mastery of gaharu tree identification and students' performance of gaharu oil distillation process. The activities of both identification and distillation emphasize team work to operate any technological devices. Therefore, the study was conducted. The data were analyzed quantitatively. Forty students of Biology study program who are taking high level botany subject participated in this study. They were divided into two classes: twenty one students of class A and nineteen