

NUSANTARA BIOSCIENCE

ISEA JOURNAL OF BIOLOGICAL SCIENCES

| Nus Biosci | vol. 1 | no. 2 | pp. 53-103 | July 2009 |
ISSN 2087-3948 (PRINT) | ISSN 2087-3956 (ELECTRONIC)

Adenium obesum photo by Abu Abdurrahman



FIRST PUBLISHED:
2009

ISSN:
2087-3948 (printed edition), 2087-3956 (electronic edition)

EDITORIAL BOARD:

Abdulaziz M. Assaeed (King Saud University, Riyadh, Saudi Arabia), **Alfiono** (Sebelas Maret University, Surakarta), **Edwi Mahajoeno** (Sebelas Maret University, Surakarta), **Ehsan Kamrani** (Hormozgan University, IR Iran), **Eko Handayanto** (Brawijaya University, Malang), **Endang Sutariningsih** (Gadjah Mada University, Yogyakarta), **Faturochman** (Gadjah Mada University, Yogyakarta), **Iwan Yahya** (Sebelas Maret University, Surakarta), **Jamaluddin** (R.D. University, Jabalpur, India), **Lien A. Sutasurya** (Bandung Institute of Technology, Bandung), **Magdy Ibrahim El-Bana** (Suez Canal University, Al-Arish, Egypt), **Mahendra K. Rai** (Amravati University, India), **Marsetyawan H.N. Ekandaru** (Gadjah Mada University, Yogyakarta), **Oemar Sri Hartanto** (Sebelas Maret University, Surakarta), **R. Wasito** (Gadjah Mada University, Yogyakarta), **Rugayah** (Indonesian Institute of Science, Cibinong-Bogor), **Sameer A. Masoud** (Philadelphia University, Amman, Jordan), **Supriyadi** (Balitbiogen, Bogor), **Sri Margana** (Gadjah Mada University, Yogyakarta), **Suranto** (Sebelas Maret University, Surakarta), **Sutarno** (Sebelas Maret University, Surakarta), **Sutiman B. Sumitro** (Brawijaya University, Malang), **Taufikurrahman** (Bandung Institut of Technology, Bandung), **Wayan T. Artama** (Gadjah Mada University, Yogyakarta)

EDITOR-IN-CHIEF:

Sugiyarto (sugiyarto_ys@yahoo.com)

EDITORIAL STAFF:

Yansen M. Toha (lingkungan_global@yahoo.com), **Ari Pitoyo** (aripitoyo@yahoo.co.id)

MANAGING EDITORS:

Ahmad Dwi Setyawan (unsjournals@gmail.com)

PUBLISHER:

“Bioscience Community”, School of Graduates, Sebelas Maret University, Surakarta

ADDRESS:

Bioscience Program, School of Graduates, Sebelas Maret University
Jl. Ir. Sutami 36A Surakarta 57126. Tel. & Fax.: +62-271-663375, Email: nusbioscience@yahoo.com

ONLINE:

www.unsjournals.com/nusbioscience

.....
EXPERTISE OF THE EDITORIAL BOARD:

AGRICULTURAL SCIENCES: Eko Handayanto (ehn_fp@brawijaya.ac.id), **ANTHROPOLOGY:** Sri Margana (margo15id@yahoo.com), **APPLIED BIOLOGICAL SCIENCES:** Suranto (surantouns@gmail.com), **BIOCHEMISTRY:** Wayan T. Artama (artama@ugm.ac.id), **NATURAL PRODUCT BIOCHEMISTRY:** MAHENDRA K. RAI, **BIOPHYSICS AND COMPUTATIONAL BIOLOGY:** Iwan Yahya (iyahya@uns.ac.id), **CELL BIOLOGY:** Sutiman B. Sumitro (sutiman@brawijaya.ac.id), **DEVELOPMENTAL BIOLOGY:** Lien A. Sutasurya (lien@bi.itb.ac.id), **ECOLOGY:** Magdy Ibrahim El-Bana (magdy.el-bana@ua.ac.be), **ENVIRONMENTAL SCIENCES:** Abdulaziz M. Assaeed (assaeed@ksu.edu.sa), **EVOLUTION:** Taufikurrahman (taufik@bi.itb.ac.id), **GENETICS:** Sutarno (nnsutarno@yahoo.com), **IMMUNOLOGY:** Marsetyawan H.N. Ekandaru (marsetyawanhnes@yahoo.com), **MEDICAL SCIENCES:** Alfiono (afieagp@yahoo.com), **ANIMAL AND VETERINARY SCIENCES:** R. Wasito (wasito@ugm.ac.id), **MICROBIOLOGY:** Endang Sutariningsih (annisah-endang@ugm.ac.id), **NEUROSCIENCE:** Oemar Sri Hartanto (oemarsrihartanto@yahoo.com), **PHARMACOLOGY:** Supriyadi (supriyadi@cbn.net.id), **PHYSIOLOGY:** Sameer A. Masoud (smasoud@philadelphia.edu), **PLANT BIOLOGY:** Rugayah (titikrugayah@yahoo.com), **POPULATION BIOLOGY:** Ehsan Kamrani (kamrani@hormozgan.ac.ir), **PSYCHOLOGICAL AND COGNITIVE SCIENCES:** Faturochman (fatur@cpps.or.id), **SUSTAINABILITY SCIENCE:** Jamaluddin (jamaluddin_123@hotmail.com), **SYSTEMS BIOLOGY:** Edwi Mahajoeno (edmasich@yahoo.com)

GUIDANCE FOR AUTHORS

NUSANTARA BIOSCIENCES, the ISEA Journal of Biological Sciences publishes scientific articles, namely original full research and review in all **Biological Sciences**, including: **Agricultural Sciences, Anthropology, Applied Biological Sciences, Biochemistry, Natural Product Biochemistry, Biophysics and Computational Biology, Cell Biology, Developmental Biology, Ecology, Environmental Sciences, Evolution, Genetics, Immunology, Medical Sciences, Microbiology, Neuroscience, Pharmacology, Physiology, Plant Biology, Population Biology, Psychological and Cognitive Sciences, Sustainability Science, and Systems Biology**. Scientific feedback (short communication) is only received for manuscript, which criticize published article before.

Manuscripts will be reviewed by managing editor, editorial board and invited peer review according to their disciplines. The only articles written in English (U.S. English) and Bahasa Indonesia are accepted for publication. This journal periodically publishes in March, July and November. In order to support reduction of global warming and forest degradation, editor prefers receiving manuscripts via e-mail rather than in hard copy. Manuscript and its communications can only be addressed to the managing editor; better to forward to one of the editorial board member for accelerating evaluation. A letter of statement expressing that the author (s) is responsible for the original content of manuscript, the result of author(s)'s research and never been published must be declared. Manuscript of original research should be written in no more than 25 pages (including tables and figures), each page contain 700-800 word, or proportional with article in this publication number. Invited review articles will be accommodated. Avoid expressing idea with complicated sentence and verbiage, and used efficient and effective sentence.

Manuscript is typed at one side of white paper of A4 (210x297 mm²) size, in a single column, double space, 12-point Times New Roman font, with 2 cm distance step aside in all side. Smaller letter size and space can be applied in presenting table. Word processing program or additional software can be used, however, it must be PC compatible and Microsoft Word based. Names of sub-species until phylum should be written in italic, except for italic sentence. Scientific name (genera, species, author), and cultivar or strain should be mentioned completely at the first time mentioning it, especially for taxonomic manuscripts. Name of genera can be shortened after first mentioning, except generating confusion. Name of author can be eliminated after first mentioning. For example, *Rhizopus oryzae* L. UICC 524, hereinafter can be written as *R. oryzae* UICC 524. Using trivial name should be avoided, otherwise generating confusion. Mentioning of scientific name completely can be repeated at Materials and Methods. **Biochemical and chemical nomenclature** should follow the order of IUPAC-IUB, while its translation to Indonesian-English refers to *Glossarium Istilah Asling-Indonesia* (2006). For DNA sequence, it is better used Courier New font.

Symbols of standard chemical and abbreviation of chemistry name can be applied for common and clear used, for example, completely written butilic hydroxytoluene to be BHT hereinafter. **Metric measurement** use IS denomination, usage other system should follow the value of equivalent with the denomination of IS first mentioning. Abbreviation set of, like g, mg, mL, etc. do not follow by dot. Minus index (m², L⁻¹, h⁻¹) suggested to be used, except in things like "per-plant" or "per-plot". **Equation of mathematics** can be written separately. **Number** one to ten are expressed with words, except if it relates to measurement, while values above them written in number, except in early sentence. Fraction should be expressed in decimal. In text, it should be used "%" rather than "gratuity".

Title of article should be written in compact, clear, and informative sentence preferably not more than 20 words (generally 135 characters including spaces). Name of author(s) should be completely written. **Running title** is about five words, refelcting the idea of the manuscript. **Name and institution** address should be also completely written with street name and number (location), zip code, telephone number, facsimile number, and e-mail address. Manuscript written by a group, author for correspondence along with address is required. First page of the manuscript is used for writing above information.

Abstract should not be more than 250 words, written in English, on page two of the manuscript. **Keywords** is about five words, covering scientific and local name (if any), research theme, and special methods which used. **Introduction** is about 400-600 words, covering background and aims of the research. **Materials and Methods** should emphasize on the procedures and data analysis. **Results and Discussion** should be written as a series of connecting sentences, however, for manuscript with long discussion should be divided into sub titles. Thorough discussion represents the causal effect mainly explains for why and how the results of the research were taken place, and do not only re-express the mentioned results in the form of sentences. **Conclusion** should preferably be given at the end of the discussion. **Acknowledgments** list and funding sources are expressed in a brief. Dedications are rarely allowed.

Figures and Tables of maximum of three pages should be clearly

presented. Title of a picture is written down below the picture, while title of a table is written in the above the table. Colored picture and photo can be accepted if information in manuscript can lose without those images. Photos and pictures are preferably presented in a digital file. JPEG format should be sent in the final (accepted) article. Author could consign any picture or photo for front cover, although it does not print in the manuscript. **There is no appendix**, all data or data analysis are incorporated into Results and Discussions. For broad data, it can be displayed in website as Supplement.

Citation in manuscript is written in "name and year" system; and is arranged from oldest to newest and from A to Z. The sentence sourced from many authors, should be structured based on the year of recently. In citing an article written by two authors, both of them should be mentioned, however, for three and more authors only the family (last) name of the first author is mentioned followed by et al., for example: Saharjo and Nurhayati (2006) or (Boonkerd 2003a, b, c; Sugiyarto 2004; El-Bana and Nijs 2005; Balagadde et al. 2008; Webb et al. 2008). Extent citation as shown with word "cit" should be avoided, and suggested to refer an original reference.

References. APA style in double space is used in the journal reference. Only published or in-press papers and books may be cited in the reference list. Unpublished abstracts of papers presented at meetings or references to "data not shown" are not permitted. References should be cited in alphabetic order. All authors should be named in the citation (unless there are more than five). If there are more than five, list the first author's name followed by et al. Include the full title for each cited article. Authors must translate foreign language titles into English, with a notation of the original language (except for Spanish, France, and Germany). For Indonesian manuscript, translation of Indonesian title to English is not necessary. For correct abbreviations of journal titles, refer to *Chemical Abstracts Service Source Index* (CASSI). Provide inclusive volume, number, and page ranges for journal articles, but not for book or book chapters.

Journal:

Saharjo BH, Nurhayati AD. 2006. Domination and composition structure change at hemic peat natural regeneration following burning; a case study in Pelalawan, Riau Province. *Biodiversitas* 7: 154-158.

Book:

Rai MK, Carpinella C. 2006. Naturally occurring bioactive compounds. Elsevier, Amsterdam.

Chapter in book:

Webb CO, Cannon CH, Davies SJ. 2008. Ecological organization, biogeography, and the phylogenetic structure of rainforest tree communities. In: Carson W, Schnitzer S (eds) *Tropical forest community ecology*. Wiley-Blackwell, New York.

Abstract:

Assaeed AM. 2007. Seed production and dispersal of *Rhazya stricta*. 50th annual symposium of the International Association for Vegetation Science, Swansea, UK, 23-27 July 2007.

Proceeding:

Alikodra HS. 2000. Biodiversity for development of local autonomous government. In: Setyawan AD, Sutarno (eds) *Toward mount Lawu national park; proceeding of national seminary and workshop on biodiversity conservation to protect and save germplasm in Java island*. Sebelas Maret University, Surakarta, 17-20 July 2000. [Indonesia]

Thesis, Dissertation:

Sugiyarto. 2004. Soil macro-invertebrates diversity and inter-cropping plants productivity in agroforestry system based on sengon. [Dissertation]. Brawijaya University, Malang. [Indonesia]

Information from internet:

Balagadde FK, Song H, Ozaki J, Collins CH, Barnet M, Arnold FH, Quake SR, You L. 2008. A synthetic *Escherichia coli* predator-prey ecosystem. *Mol Syst Biol* 4: 187. www.molecularsystemsbiology.com

Progress of manuscript. Notification of manuscript whether it is accepted or refused will be notified in about three months since the manuscript received. Manuscript is refused if the content does not in line with the journal mission, low quality, inappropriate format, complicated language style, dishonesty of research authenticity, or no answer of correspondence in a certain period. Author or first authors at a group manuscript will get one original copy of journal containing manuscript submitted not more than a month after publication. Offprint or reprint is only available with special request.

NOTE: Author(s) agree to transfer copy right of published paper to *NUSANTARA BIOSCIENCE, the ISEA Journal of Biological Science*. Authors shall no longer be allowed to publish manuscript completely without publisher permission. Authors or others allowed multiplying article in this journal as long as not for commercial purposes. For the new invention, authors suggested to manage its patent before publishing in this journal.

NOTIFICATION: All communications are strongly recommended to be undertaken through email.

Blood cholesterol levels of hypercholesterolemic rat (<i>Rattus norvegicus</i>) after VCO treatment MARTI HARINI, OKID PARAMA ASTIRIN	53-58
Effect of manure and NPK to increase soil bacterial population of <i>Azotobacter</i> and <i>Azospirillum</i> in chili (<i>Capsicum annum</i>) cultivation MUJIYATI, SUPRIYADI	59-64
Nitrogen content, nitrate reductase activity, and biomass of kimpul (<i>Xanthosoma</i> <i>sagittifolium</i>) on shade and nitrogen fertilizer variation ISNAINI CHOIRUL LATIFA, ENDANG ANGGARWULAN	65-71
Characterization of white grub (Melolonthidae; Coleoptera) in salak plantation based on morphology and protein banding pattern KRISNANDARI TITIK MARYATI, SUGIYARTO	72-77
Variation of morphology, karyotype and protein band pattern of adenium (<i>Adenium</i> <i>obesum</i>) varieties DWI HASTUTI, SURANTO, PRABANG SETYONO	78-83
Variability analysis of Sukun durian plant (<i>Durio zibethinus</i>) based on RAPD marker ISMI PUJI RUWAIDA, SUPRIYADI, PARJANTO	84-91
Diversity of <i>Sonneratia alba</i> in coastal area of Central Java based on isozymic patterns of esterase and peroxidase AHMAD DWI SETYAWAN	92-103

