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Biotropika: Journal of Tropical Biology is a scientific journal published by Biology Department, Faculty of Mathematics and Natural Sciences, University of Brawijaya established since 2013. Biotropika: Journal of Tropical Biology is a peer-reviewed journal that strives to provide scientific information on the research results which focused on biological science in tropical regions including biotechnology, biodiversity, microbiology and environmental sciences.

Biotropika: Journal of Tropical Biology publishes three issues each year.

(Biotropika: Journal of Tropical Biology adalah jurnal ilmiah yang diterbitkan oleh Jurusan Biologi, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Brawijaya sejak 2013. Biotropika: Journal of Tropical Biology adalah jurnal yang ditelaah oleh mitra bestari yang menyediakan informasi ilmiah tentang hasil-hasil penelitian yang fokus pada kajian biologi di wilayah tropis meliputi bioteknologi, biodiversitas, mikrobiologi dan ilmu lingkungan.

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PREFACE

All of our gratitude goes to Almighty God because of His blessed, Biotropika: Journal of Tropical Biology publishes scientific writing which are the results of research from academics in Indonesia. In this edition, Biotropika: Journal of Tropical Biology presents writings relating to the potential of natural resources from Indonesia, that is red betel leaves, food crops, mollusc and local rice. We also present article about bioinformatics that aligned with the industrial revolution 4.0.

The contents of this edition begins with the effect of red betel leaves extract on blood glucose level and glutathione peroxidase (GPx) level in hyperglycemic male rats that able to decrease of blood glucose level and increase of GPx level. Exploration of the food crops in ethnobotany perspective is interesting to examine the local knowledge about it in Using tribe of Banyuwangi regency that utilizes 40 species of food crops. In other areas, the structure of mollusc community in forest area with special purpose (KHDTK), Carita, Pandeglang was investigated and dominated by *Thiara scabra* in fresh water while abundant species in marine water were dominated by *Laevipilina cachuchensis*. The development of statistical methods with F_{ST} for selection of Single Nucleotide Polymorphism (SNP) also becomes interesting in the study of bioinformatics. Moreover, the phylogenetic analysis of local rice from East Java based on *matK* gene shown closely related to *Oryza sativa* Indica and *Oryza sativa* Japonica so it can be used to produce rice varieties with a better morphological and physiological characteristics.

The publication of this edition is also a hard work and the attention of many parties, therefore the Editorial team thank the reviewers who willing to provide inputs and criticisms for improving the writing quality. The members of the editors who have spent their time to let this issue can be published properly. May the articles in this journal can be beneficial to the readers and be a reference for future studies.

Regards,
Editorial Team

KATA PENGANTAR

Segala puji syukur kita sampaikan kepada Tuhan YME karena atas karunia-Nya, Biotropika: *Journal of Tropical Biology* kembali menerbitkan tulisan-tulisan ilmiah yang merupakan hasil penelitian dari para akademisi di Indonesia. Pada edisi ini, Biotropika: *Journal of Tropical Biology* menyajikan tulisan yang berkaitan dengan tentang potensi sumber daya alam Indonesia yang meliputi daun sirih merah, tanaman pangan, komunitas moluska dan padi lokal. Selain itu, dalam edisi ini juga menyajikan tulisan mengenai bioinformatika yang selaras dengan revolusi industri 4.0.

Isi tulisan dimulai dengan pengaruh daun sirih merah terhadap kadar glukosa darah dan kadar glutathione peroksidase (GPx) pada tikus hiperglikemik yang memengaruhi penurunan kadar glukosa darah dan peningkatan kadar GPx. Eksplorasi tanaman pangan dari perspektif etnobotani menarik untuk diperhatikan pada masyarakat suku Using di Banyuwangi yang memanfaatkan 40 spesies tanaman pangan. Pada wilayah lain, struktur komunitas moluska di Kawasan Hutan dengan tujuan Khusus (KHDTK) Carita, Pandeglang didominasi oleh *Thiara scabra* pada perairan tawar sedangkan di perairan laut didominasi oleh *Laevipilina cachuchensis*. Pengembangan metode statistik dengan F_{ST} untuk seleksi *Single Nucleotide Polymorphism* (SNP) juga menjadi hal yang menarik dalam kajian bioinformatika untuk seleksi SNP informatif. Serta, analisis hubungan kekerabatan secara

genetik padi lokal Jawa Timur berdasarkan gen *matK* menunjukkan kekerabatan yang dekat dengan *Oryza sativa* Indica dan *Oryza sativa* Japonica sehingga dapat digunakan dalam perakitan varietas padi dengan karakteristik morfologi dan fisiologis yang lebih baik.

Penerbitan edisi ini juga atas kerja keras dan perhatian banyak pihak, oleh karena itu redaksi Biotropika: *Journal of Tropical Biology* mengucapkan terima kasih kepada para mitra bestari yang berkenan memberikan masukan dan kritik untuk peningkatan kualitas tulisan. Para anggota redaksi yang telah meluangkan waktunya agar edisi ini dapat terbit dengan baik. Semoga tulisan-tulisan dalam jurnal ini dapat bermanfaat bagi pembaca dan menjadi rujukan untuk penelitian-penelitian berikutnya.

Hormat kami,
Dewan redaksi

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