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Foreword

It is our pleasure to present Bioeksperimen, **Volume 12, Number 1, March 2026**, which brings together twenty scholarly articles representing current developments in experimental and exploratory biology. This issue reflects the journal's continuing commitment to publishing original research that contributes to the advancement of both fundamental biological knowledge and its practical applications across diverse scientific contexts.

The articles in this issue demonstrate the wide scope of contemporary biological inquiry. Several contributions emphasize molecular and genetic approaches, including the phylogenetic analysis of representative mammalian MUC16, pharmacological prediction of Marchantia polymorpha through GC-MS and molecular docking, genetic diversity assessment in EMS-induced porang using RAPD markers, morphological and genetic identification of Spirulina based on the 16S rRNA gene, and the design and validation of PIP gene primers for quantitative PCR in *Capsicum annuum*. This issue also includes integrative studies combining field observation and in silico analysis, such as the phylogenetic investigation of pteridophytes, reflecting the growing importance of molecular tools in taxonomy, evolutionary biology, and crop-related research.

In addition, this volume features a strong representation of ecological, microbiological, and applied biological studies. These include research on waterbirds as bioindicators of ecosystem health, vegetation analysis of terrestrial ferns, insect diversity in maize fields, and plankton diversity across different ecosystems. Applied studies in this issue further explore the biological potential of plants, fungi, and bacteria in areas such as antibacterial and antifungal activity, mercury bioremediation, protease and cellulase production, waste bioconversion using black soldier fly larvae, and evidence-based waste analysis to support 3R strategies and food recovery hierarchy. Experimental investigations on acute febrile response in domestic chicken and the nanoherbal potential of *Clitoria ternatea* on spermatozoa quality also enrich the interdisciplinary character of this issue.

Collectively, the studies published in this volume highlight the dynamic role of biology in addressing scientific, environmental, agricultural, and health-related challenges. We believe that the articles presented in this issue will provide meaningful contributions to the scientific community and serve as valuable references for researchers, lecturers, students, and practitioners in related fields.

We would like to express our sincere appreciation to all authors for their valuable contributions, to the reviewers for their thoughtful evaluations, and to the editorial team for their dedication in maintaining the quality and integrity of the publication process. We hope that this issue of Bioeksperimen will continue to stimulate scientific discussion and encourage further research in experimental and exploratory biology.

The following pages present the editorial board, reviewers, and table of contents of Bioeksperimen, Volume 12, Number 1, March 2026.

Table of content:

1. The phylogenetic analysis of representative mammalian MUC16 supported by comparative SEA domain and tandem repeat variation.
2. Pharmacological Prediction of *Marchantia polymorpha*: GC-MS and Molecular Docking Approaches
3. Integrating BSF larvae for the sustainable bioconversion of banana peels and sprout hulls waste
4. Waterbirds as bioindicators of ecosystem health: seasonal dynamics in Tondano Lake, Indonesia

Table of content:

5. Assessment of genetic diversity in EMS-induced porang (*Amorphophallus muelleri* Blume) revealed by RAPD markers
6. Preliminary study of acute febrile response to crude LPS extract from *Salmonella typhimurium* in domestic chicken (*Gallus gallus domesticus*) strain AKY
7. Antibacterial activity of miana (*Coleus scutellarioides*) against *Streptococcus pyogenes* and *Streptococcus mutans*
8. Evidence-based non-residential waste analysis to support 3R strategies and food recovery hierarchy: a case study in Solok Selatan
9. Morphological and genetic identifications of Spirulina based on 16S rRNA gene
10. In vitro antifungal activity of *Mimosa pudica* rhizosphere bacteria against *Fusarium spp*.
11. Insect diversity at vegetative maize phase (*Zea mays* L.) in caturharjo village
12. Potential of butterfly pea (*Clitoria ternatea*) nanoherbal on spermatozoa quality in hyperglycemic rats
13. Synergistic cultures for resilient mercury bioremediation in ASGM leveraging Microbial interactions for sustainable pollutant removal
14. A vegetation analysis of terestrial fern in kemuning tea garden, ngargoyoso village, Indonesia
15. Isolation and screening of halotolerant protease-producing bacteria from lampung fermented shrimp paste
16. Utilization of cassava peel waste (*Manihot esculenta*) as substrate in the production of cellulase enzymes by *Aspergillus niger*
17. Design and validation of PIP gene primer for quantitative PCR in *Capsicum annuum* using in silico and experimental approaches
18. Antagonistic activity of phyllosphere fungi isolated from medicinal plants against *Colletotrichum sp.* causing anthracnose in chilli (*Capsicum annuum* L.)
19. Diversity of plankton species in different ecosystems on Beras Basah Island, Bontang, East Kalimantan
20. Integrating field inventory and in-silico phylogenetic analysis of pteridophytes at Gandul Mount, Indonesia

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