

**AES Bioflux, Volume 17(1)**  
**December, 30, 2025**

**Advances in Environmental Sciences - International Journal  
of the Bioflux Society**



**Online ISSN 2066–7647; Print ISSN 2066-7620; ISSN-L 2066-7620**

Periodical frequency: annual.

Publisher: Bioflux Publishing House (Bioflux SRL)

Address: 54 Ceahlau Street, Cluj-Napoca 400488, Romania, European Union.

**Contact for submission:** Dr. I. V. Petrescu-Mag, ioan.mag@usamvcluj.ro

### **Scope of the journal**

The journal covers all fields of environmental sciences, connected to life sciences, geology, physics, chemistry, economics, policies, or legislation (both theoretical and applied issues).

AES Bioflux offers an excellent opportunity to publish original research articles, reviews, or short communications, both in print and online, in color, open access. Our policy allows the author(s) to retain copyright without restrictions. This is an open-access journal distributed under the terms of the Creative Commons Attribution License (CC-BY), which permits unrestricted use, distribution, and reproduction in any medium, provided that the original author and source are properly credited.

AES Bioflux is an international peer-reviewed journal. Each published article is independently evaluated by two Scientific Reviewers and at least one linguist. The peer-review policy of AES Bioflux is double-blind peer review. The editors use software to screen for plagiarism. Acceptance rate: approximately 50%. Electronic submission is required.

Because many authors withdrew their manuscripts in final form just before the payment of the publication fee, our policy was changed on 20 February 2019. The publication fee was replaced by a processing fee (250 USD), which is paid after a preliminary evaluation (not at the end of the process).

Our evaluation process has two steps:

1. Preliminary evaluation by the editor (the author receives a preliminary acceptance or rejection);
2. External double-blind peer review (at this stage, the author receives the final decision: acceptance or rejection).

Please note that if the manuscript is not published, the author or his/her institution receives a refund (except in cases of poor author responsiveness, withdrawal, or rejection due to multiple submissions).

Authors are informed about the final decision (acceptance or rejection) within 3–8 weeks after submission. The average overall time from manuscript submission to publication is 10 weeks. Faster processing involves a priority fee (50 USD).

### **Waiver policy and payments**

Manuscript processing fee: 250 USD (or equivalent in EURO or RON)

Manuscript processing fee with priority: 300 USD (or equivalent in EURO or RON)

Publication fee: 0 USD

The journal has a waiver policy for authors from developing countries (only in cases of very high-quality manuscripts). When the first author of the manuscript is a member of the AES Bioflux Expanded Editorial Board, no processing fee is required.

Please attach a scanned payment document and send it by email to:  
ioan.mag@usamvcluj.ro

Payment details:

Bioflux SRL

SWIFT code: BTRLRO22

Account no.: 213USDCRT00L2861401

IBAN:

USD: RO68BTRL01302202L28614XX – BANCA TRANSILVANIA (Cluj-Napoca)

EURO: RO19BTRL01304202L28614XX – BANCA TRANSILVANIA (Cluj-Napoca)

RON: RO44BTRL01301202L28614XX – BANCA TRANSILVANIA (Cluj-Napoca)

### **Statement of human and animal rights**

When reporting experiments involving human subjects, authors should indicate whether the procedures followed were in accordance with the ethical standards of the responsible institutional and national committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000.

If there is doubt as to whether the research was conducted in accordance with the Helsinki Declaration, authors must explain the rationale for their approach and demonstrate that the institutional review body explicitly approved the relevant aspects of the study.

When reporting experiments involving animals, authors should indicate whether institutional and national guidelines for the care and use of laboratory animals were followed (International Committee of Medical Journal Editors – Uniform Requirements for Manuscripts Submitted to Biomedical Journals, February 2006 – cited by PubMed/Medline).

### **Statement of informed consent**

Patients have a right to privacy that should not be violated without informed consent. Identifying information, including patients' names, initials, or hospital numbers, should not be published in written descriptions, photographs, or pedigrees unless essential for scientific purposes and written informed consent has been obtained.

Informed consent requires that identifiable patients be shown the manuscript prior to publication. Authors should identify individuals who provided writing assistance and disclose the funding source for such assistance.

Identifying details should be omitted whenever possible. Complete anonymity is difficult to achieve, and informed consent should be obtained whenever there is doubt. Masking the eye region in photographs is not sufficient to guarantee anonymity.

If identifying characteristics are altered to protect anonymity, authors must ensure that scientific meaning is not distorted and editors should be informed accordingly (International Committee of Medical Journal Editors – Uniform Requirements for Manuscripts Submitted to Biomedical Journals, February 2006 – cited by PubMed/Medline).

### **Conflict-of-interest statement**

Public trust in the peer-review process and the credibility of published articles depend on the proper handling of conflicts of interest during writing, peer review, and editorial decision-making.

A conflict of interest exists when an author, reviewer, editor, or their institution has financial or personal relationships that could inappropriately influence their actions. These relationships may range from negligible to significant potential influence.

Financial relationships (employment, consultancies, stock ownership, honoraria, paid expert testimony) are the most easily identifiable conflicts and may undermine credibility.

Conflicts may also arise from personal relationships, academic competition, or intellectual bias. The Chief Editor takes appropriate measures to prevent such conflicts through established peer-review policies.

### **Authors' responsibilities**

- All authors must have made significant contributions to the research
- Authors must provide corrections or retractions if errors are identified
- Authors must provide a complete list of references
- Information on financial support must be included in the Acknowledgements section
- Submission of the same research to more than one journal is prohibited

### **Peer-review, publication policies, and publication ethics**

- Reviews are conducted objectively and independently
- Reviewers must have no conflicts of interest
- Manuscripts are treated confidentially prior to publication
- Bioflux Publishing takes reasonable measures to detect and prevent research misconduct
- Allegations of misconduct are handled appropriately by the publisher and editors
- Corrections, clarifications, retractions, and apologies are accepted
- Corrections cannot be made directly in the original published article; they must appear as a separate Note or Erratum
- Retractions are issued by the publisher in cases of plagiarism or serious ethical concerns.

This is an open-access journal distributed under the Creative Commons Attribution License (CC-BY), permitting unrestricted use, distribution, and reproduction, provided the original author and source are credited.

If the journal ceases publication, Bioflux Publishing has agreements with several databases authorized to preserve and republish archived content in unlimited electronic and printed copies.

Bioflux Publishing is archived by the Legal Deposit of Bucharest (National Library of Romania) and by the County Legal Deposit in Cluj-Napoca (Octavian Goga Library).

## **Data Sharing Policy**

### **1. Policy Statement**

AES Bioflux is committed to promoting transparency, reproducibility, and integrity in scientific research. We support responsible data sharing as an essential component of scholarly communication and encourage authors to make the data underlying their findings openly available whenever possible. This policy applies to all manuscripts submitted to the journal and is consistent with international standards for editorial best practices and research transparency.

### **2. Author Responsibilities**

Authors are required to:

- Include a Data Availability Statement in all submitted manuscripts.
- Clearly indicate whether the data supporting the findings of the study are:
  - Publicly available,
  - Available upon reasonable request, or
  - Restricted due to ethical, legal, or confidentiality considerations.
- Ensure that shared data are accurate, complete, and sufficiently documented to allow replication and verification of the reported results.

Authors are strongly encouraged to deposit their data in recognized public repositories appropriate to their discipline.

### **3. Data Availability Statement**

All manuscripts must include a Data Availability Statement specifying one of the following:

- The repository name, persistent identifier (e.g., DOI), and access link if data are publicly available.
- The conditions under which data may be accessed if restrictions apply.
- A clear explanation if no new data were generated or analyzed.

Example statement:

"The data supporting the findings of this study are available in [repository name] at [DOI or URL], or from the corresponding author upon reasonable request."

### **4. Recommended Data Repositories**

Authors are encouraged to use trusted repositories that provide:

- Persistent identifiers (e.g., DOI)
- Long-term preservation
- Public accessibility
- Appropriate metadata and documentation

Examples include institutional repositories, discipline-specific repositories, or general repositories such as Zenodo, Dryad, Figshare, or equivalent platforms.

### **5. Ethical and Legal Considerations**

Data sharing must comply with:

- Patient privacy and confidentiality requirements
- Informed consent provisions
- Institutional and national regulations
- Ethical approval conditions

Sensitive data involving human participants must be de-identified prior to sharing, unless explicit consent for identifiable data sharing has been obtained. Where legal or ethical restrictions prevent public sharing, authors must clearly state these limitations.

### **6. Editorial and Peer Review Access**

Editors and peer reviewers may request access to underlying data during the review process to evaluate the scientific validity of the manuscript. Authors must provide such data upon request, unless prohibited by legal or ethical constraints. Failure to provide requested data may result in rejection of the manuscript.

### **7. Compliance and Enforcement**

Failure to comply with this policy may result in:

- Manuscript rejection,
- Publication delays,
- Retraction of published articles if data integrity concerns arise.

The journal reserves the right to request data verification at any stage before or after publication.

### **8. Exceptions**

Exceptions to data sharing requirements may be granted in cases involving:

- Legal restrictions,
- Ethical or privacy concerns,
- Proprietary or confidential data.

Such exceptions must be clearly justified in the Data Availability Statement.

## **9. Policy Scope and Alignment**

This policy is aligned with international editorial standards and supports the principles of:

- Research transparency
- Reproducibility
- Scientific integrity
- Responsible data stewardship

The journal periodically reviews and updates this policy to maintain compliance with evolving indexing and ethical standards.

## **10. Contact Information**

Questions regarding this policy should be directed to the Editorial Office at: ioan.mag@usamvcluj.ro

### **Advertising policy**

Our journals do not accept or display any form of advertising, sponsored content, or commercial promotions. No third-party advertising networks are used, and there is no advertising revenue associated with our publications.

### **Artificial intelligence use and disclosure policy**

We allow the use of artificial intelligence tools in manuscript preparation, provided that any substantive contribution generated by AI is clearly disclosed and appropriately cited in the text.

### **Editorial board**

#### **Editor-in-Chief**

Gavriloaie Ionel-Claudiu - SC Bioflux SRL, Cluj-Napoca (Romania).

#### **Editors**

Al-Qutob Mutaz - Al-Quds University (Palestinian Authority)

Balint Claudia - USAMV Cluj, Cluj-Napoca (Romania)

Banatean-Dunea Ioan - University of Life Sciences "King Mihai I", Timisoara (Romania)

Boaru Anca - USAMV Cluj, Cluj-Napoca (Romania)

Bora Florin D. - USAMV Cluj, Cluj-Napoca (Romania)

Bordeanu Bianca - USAMV Cluj, Cluj-Napoca (Romania)

Bougdah Mounira - Badji Mokhtar Annaba University, Annaba (Algeria)

Brasovean Ioan - USAMV Cluj, Cluj-Napoca (Romania)

Brejea Radu Petru - University of Oradea, Oradea (Romania)

Bunea Claudiu I. - USAMV Cluj, Cluj-Napoca (Romania)

Burny Philippe - Universite de Liege, Gembloux (Belgium)

Caipang Christopher M.A. - Temasek Polytechnic (Singapore)

Chanda Kelvin M. - Lusitu High School, Siavonga (Zambia)

Celik Meryem Yesim - University of Sinop (Turkey)

Cighi Vasile - USAMV Cluj, Cluj-Napoca (Romania)

Cimpean Adrian - USAMV Cluj, Cluj-Napoca (Romania); EAAP, Rome (Italy)

Clemente Ken Joseph E. - University of Santo Tomas in Manila (Philippines)

Correa Jean Michel - Federal University of Ceara, Fortaleza (Brazil)

Coroian Aurelia - USAMV Cluj, Cluj-Napoca (Romania)

Coroian Cristian - USAMV Cluj, Cluj-Napoca (Romania)

Daescu Adela Maria - USAMV Cluj, Cluj-Napoca (Romania)

Farooq Jehanzeb - Cotton Research Institute, Ayub, Faisalabad (Pakistan)

Georgescu Bogdan - USAMV Cluj, Cluj-Napoca (Romania)

Gradinaru Andrei - Iasi University of Life Sciences "Ion Ionescu de la Brad" (Romania)

Iederan Cristian - USAMV Cluj, Cluj-Napoca (Romania)  
 Hasanuzzaman Mirza - Sher-e-Bangla Agricultural University (Bangladesh)  
 Helepciuc Catalina M. - Technical University Gheorghe Asachi, Iasi (Romania)  
 Kovacs Eniko - USAMV Cluj, Cluj-Napoca (Romania)  
 Kporou Kouassi Elisee - Jean Lorougnon Guédé University (Ivory Coast)  
 Maxim Aurel - USAMV Cluj, Cluj-Napoca (Romania)  
 Malinas Cristian - USAMV Cluj, Cluj-Napoca (Romania)  
 Mierlita Dan - University of Oradea, Oradea (Romania)  
 Mihai Mihaela - USAMV Cluj, Cluj-Napoca (Romania)  
 Mihaiescu Tania - USAMV Cluj, Cluj-Napoca (Romania)  
 Mousavi-Sabet Hamed - University of Guilan, Someh Sara, Guilan (Iran)  
 Muntean George Catalin - USAMV Cluj, Cluj-Napoca (Romania)  
 Muntean Sorin - USAMV Cluj, Cluj-Napoca (Romania)  
 Nowak Michal - University of Agriculture in Krakow (Poland)  
 Nuneza Olga M. - MSU, Iligan Institute of Technology, Iligan City (Philippines)  
 Odagiu Antonia - USAMV Cluj, Cluj-Napoca (Romania); BENA, Thessaloniki (Greece)  
 Oroian Firuta Camelia - USAMV Cluj, Cluj-Napoca (Romania)  
 Oroian Ioan - USAMV Cluj, Cluj-Napoca (Romania); BENA, Thessaloniki (Greece)  
 Outred Heather A. - Massey University, Palmerston North (New Zealand)  
 Ozunu Alexandru - Babes-Bolyai University, Cluj-Napoca (Romania)  
 Pandey Praveen - Central Institute of Medicinal and Aromatic Plants, Lucknow (India)  
 Papuc Tudor - USAMV Cluj, Cluj-Napoca (Romania)  
 Paschos Ioannis - Technological Educational Institute of Epirus (Greece)  
 Peteiro Cesar - Spanish Institute of Oceanography (IEO), Santander (Spain)  
 Petrescu Dacinia Crina - Babes-Bolyai University, Cluj-Napoca (Romania);  
 Universite de Liege, Gembloux (Belgium)  
 Petrescu-Mag Ioan Valentin - USAMV Cluj, Cluj-Napoca (Romania); University of Oradea (Romania); IBFF (Moldova)  
 Petrescu-Mag Malina Ruxandra - Babes-Bolyai University, Cluj-Napoca (Romania); Universite de Liege, Gembloux (Belgium)  
 Pratasik Silvester Benny - Sam Ratulangi University, Manado (Indonesia)  
 Pojar Tudor - USAMV Cluj, Cluj-Napoca (Romania); EAAP, Rome (Italy)  
 Pop Rodica - USAMV Cluj, Cluj-Napoca (Romania)  
 Rahman Mohammed M. - Kochi University, Kochi (Japan)  
 Rusu Teodor - USAMV Cluj, Cluj-Napoca (Romania)  
 Safirescu Calin - USAMV Cluj, Cluj-Napoca (Romania)  
 Samuil Costel - Iasi University of Life Sciences "Ion Ionescu de la Brad" (Romania)  
 Sangpradub Narumon - Khon Kaen University, Khon Kaen (Thailand)  
 Sima Rodica Maria - USAMV Cluj, Cluj-Napoca (Romania)  
 Talu Stefan - Technical University of Cluj-Napoca (Romania)  
 Varban Dan - USAMV Cluj, Cluj-Napoca (Romania)  
 Vesa Stefan Cristian - University of Medicine and Pharmacy, Cluj-Napoca (Romania)  
 Vlaic Bogdan - USAMV Cluj, Cluj-Napoca (Romania)  
 Zhukov Oleksandr - Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol (Ukraine)

## Contents

Dogeanu M., Ozunu A., Bunoiu C., 2025 Romanian civil protection: "National Export Product" – A radiography of civil protection international assistance missions. AES Bioflux 17(1):1-23.

Pantelimon C., Plesa C. A., Stan A. D., Petrescu-Mag R. M., 2025 Environmental governance and sustainable development goals implementation in Romania: gaps, progress, and policy imperatives. AES Bioflux 17(1):24-47.

Popescu M., Lacatus R., Tripon M. A., Crecan C. M., Lupsan A. F., Daradics Z., Bungardean D., Purdoiu R. C., Tatar M., Matei I. R., Patrichi S. T., Marza S. M., Pasca M. P., Lacatus C. M., Panait L. C., Bora F.-D., 2025 Hydrogeochemical assessment of post-mining waters in northwestern Romania: Physico-chemical dynamics, redox interactions, and environmental implications. AES Bioflux 17(1):48-63.

Boaru A., Papuc T., Georgescu B., 2025 Offshore aquaculture, present and future. AES Bioflux 17(1):64-69.

Kirei H., Aurellia E., Aprilia L. P., Nopiana M., 2025 Community perception regarding noise pollution caused by the noisy exhausts of two-wheeled vehicles in Karawang Regency, Indonesia. AES Bioflux 17(1):70-84.

Atmojo A. T., Setyawan H. A., Jayanto B. B., Wijayanto D., Hudring, 2025 Comparative study of vessel and large pelagic purse seine dimensions at Pekalongan Fishing Port, Indonesia. AES Bioflux 17(1):85-93.

Budae A. C., 2025 System-level approaches to carbon footprint reduction in polymer manufacturing. AES Bioflux 17(1):94-99.

Nopiana M., Harahap M. N., Rahma M., Wiliyanti R., 2025 Sustainable social adaptation strategies for communities affected by coastal erosion: a case study from the coastal area of Karawang Regency, Indonesia. AES Bioflux 17(1):100-106.

Papp R. R., 2025 Integrated environmental management strategies for sustainable polymer production. AES Bioflux 17(1):107-117.

Muntean M. R., 2025 Hybrid separation technologies for minimizing energy use in petrochemical processes. AES Bioflux 17(1):118-121.