


ENVIRONMENTAL PROTECTION THROUGH CONSERVATION AND REMEDIATION

Contact details

Name	Environmental Protection through Conservation and Remediation
Acronym	ENVIRONMENTALIA
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Areas of expertise

Assessment of biodiversity in natural and anthropogenic ecosystems, the conservation or remediation of degraded lands in perspective by promoting restoration of natural habitats.
Identifying, testing and application of combinations of species including microorganisms (bacteria, cianoficee), fungi and plants able to remedy degraded soils and stimulate the installation of natural habitats.
Recovery of copper through bio-technological procedures from the low-grade ores.
Applied research on tissue culture and plants multiply "in vitro".

Team

Assoc. Prof. Dr. Marian Jelea, Assoc. Prof. Dr. Monica Marian, Assist. Prof. Dr. Stela-Gabriela Jelea, Assist. Prof. Dr. Oana Mare Roșca, Assist. Prof. Dr. Lucia Mihalescu

Representative projects

„Drawing proper assessment study in order to obtain the environmental permit”, contract with industry, 2016-2017
“Monitoring action microbiota in order to use them in the soil remediation ponds”, PNII, (2007-2010)
Greentop agrobiodiversity Cod SMIS 121447, Proiect cofinanțat din Fondul European de Dezvoltare Regională prin Programul Operațional Competitivitate 2014-2020 în parteneriat cu SC Indeco SRL și USAMV Cluj-Napoca în 2021 – 2023.
„Evolution of installation of iron and sulphur oxidizing bacteria in the sulphidic mine wastes and their influence in generating acid mine drainage”, GRANT CNCISIS,
<http://194.102.64.7/GranturiFinalizate/faces/Projects/ProjectDetails.jsp> (2007-2008)

Significant results

The most representative publications of the past 5 years:

1. **Jelea S.G., Jelea M.** Coaching methods and techniques used in teaching biological sciences. Scientific Bulletin – Series A – Issue Pedagogy, Psychology, Methodology, Vol. XXIV, no. 1., 65-68. Online-ISSN: 3061-4058. Published: 2024.
2. **Marian, M. L.,** Nasui, D., Ghise, C. R., Popovici, F., Sabo, C., **Mare, R. O.,** Vosgan, Z. Using Machine Learning Algorithms for Natural Habitats assessment. Carpathian Journal of Earth and Environmental Sciences, 19(1), 103-113. Published: 2024.
3. **Marian, M.,** & Vasilescu, B. Ecological Education of Local Communities through Community Ecological Projects Case Study Differences between the Stated Purpose and the Pseudo-Ecological Solutions in Riverbank Development. In Conference Proceedings. The Future of Education 2024. Published: 2024.
4. Aurel Maxim, Vasile Cristian Albu, Dan Cristian Vodnar, Tania Mihăiescu, Ștefania Mirela Mang, Ippolito Camele, Vincenzo Trotta, Maria Grazia Bonomo, **Lucia Mihalescu,** Mignon Sandor, Floricuța Ranga and Orsolya Borsai, Assessment of Tomato (*Solanum lycopersicum*) Landraces for Their Agronomic, Biochemical Characteristics and Resistance to *Phytophthora infestans*, *Agronomy* 2023, 13, 21. Published: 2023.
5. Dippong, T., Mihali, C., **Marian, M., Rosca, O. M.,** & Resz, M. A. Correlations between chemical, hydrological and biotic factors in rivers from the protected area of Tisa Superioară, Romania. *Process Safety and Environmental Protection*, 176, 40-55. Published: 2023.

6. Laposi, A., **Marian, M., Rosca, O.**, Mihali, C., Avram, A., & Dippong, T. The System of Aquatic Habitats from Teplita, a Vital Element for Conservation of the Biodiversity of the Upper Corridor of Tisa River. *Carpathian Journal of Earth and Environmental Sciences*, 18(2), 475-488. Published: 2023.
7. **Mihalescu Lucia, Monica Liliana Marian**, Zorica Vosgan, Beatrice Mihalescu, Aurel Maxim, **Oana Mare Rosca, Stela Jelea**, Daniel Nasui, Research on the Influence of Environmental Factors on the Intensity of Photosynthesis in the Aquatic Plant (*Egeria densa*), *ProEnvironment* 16/55 (2023) 153 – 161. Published: 2023.
8. Voşgan Z., **Mihalescu L., Monica M., Jelea S., Mare Roşca O.**, Năsui D., Mihalescu B. Research on Monitoring Aeromicroflora in Confectionery and Pastry Processing Units. *ProEnvironment* 16/55, 162 - 167. Published: 2023.
9. **Oana Mare Roşca**, Thomas Dippong, **Monica Marian**, Cristina Mihali, **Lucia Mihalescu**, Maria-Alexandra Hoaghia, **Marian Jelea**. Impact of anthropogenic activities on water quality parameters of glacial lakes from Rodnei mountains, Romania. *Environmental Research*, Volume 182. Published: March 2020.
10. Damian F., **Jelea S.G.**, Lăcătuşu R., Mihali C. The treatment of soil polluted with heavy metals using the *Sinapis alba* l. and organo zeolitic amendment. *Carpathian Journal of Earth and Environmental Sciences*, Vol. 14, No. 2, p. 409 - 422. Published: 2019.
11. **Jelea S.G., Jelea M., Mihalescu L.**, Vosgan Z., Jelea O.C. Monitoring Food Additives and Nutritional Composition of Labels of Food Bases. *Bulletin USAMV, series Agriculture* 76(1): 40-45. Published: 2019.
12. **Mihalescu L., Marian M., Jelea S.**, Pop, F., Maxim A., Voşgan Z. Research Concerning the Fighting of *Polystigma rubrum* Funghi under the Climate Conditions of Şomcuta Mare Area *Bulletin UASVM series Agriculture* 76(2): 73-77. Print ISSN 1843-5246; Electronic ISSN 1843-5386. Published: 2019.
13. Voşgan Z., **Jelea S., Marian M., Roşca-Mare O., Mihalescu L.** Assessment of Biomass Production on Pastoral Meadows in the Gutai Mountains. *Bulletin UASVM series Agriculture* 76(2): 109-110. Published: 2019.

The offer addressed to the economic environment

Research & development	<p>Evaluation of species of flora / fauna, microorganisms, fungi, from natural and anthropogenic habitats in order to protect themselves or to remedy environmental.</p> <p>Identifying biological methods based on the use of complex organisms able to reduce contamination of soil / water and facilitate the restoration of ecosystems;</p> <p>Identification of plant extracts alelopatic greenhouse (natural pesticides) in weed control and phytopathogenic;</p> <p>In vitro multiplication of species of plants for remediation and / or cultivation;</p> <p>The analysis, monitoring and diminishing of the effects produced by the polluting factors from industry;</p> <p>Evolution of installation of iron and sulphur oxidizing bacteria in the sulphidic mine wastes and their influence in generating acid mine drainage;</p> <p>Research studies for native vegetation installed in the acidic mine waste areas.</p> <p>Recovery of copper through biotechnological procedures from the low-grade ores.</p> <p>Reducing acid mine drainage (AMD) phenomena through passive methods.</p>
Consulting	<p>Structure and function in natural ecosystems and to restore contaminated their.</p> <p>Growing plants in different conditions of land polluted and / or contaminated.</p> <p>Evaluation of medical resources in the spontaneous flora, possible methods for obtaining the active principles of tissue culture.</p>
Training	<p>Structure and function in natural ecosystems and to restore contaminated their.</p> <p>Growing plants in different conditions of land polluted and / or contaminated.</p> <p>Evaluation of medical resources in the spontaneous flora, possible methods for obtaining the active principles of tissue culture.</p>

Last updated: January 2025