### **ENVIRONMENTAL PROTECTION THROUGH CONSERVATION AND REMEDIATION**

#### Contact details

Name	Environmental Protection through Conservation and Remediation
Acronym	ENVIRONMENTALIA
Logo	
Site	
Address	76, Victoriei Street, 430122, Baia Mare, Romania
Faculty Department	Faculty of Science Chemistry and Biology Department
Telephone	+40 262 276059
Fax	+40 262 275368
Director	Assoc. Prof. Dr. Marian Jelea
e-mail	mjelea@yahoo.com





## 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)

"We can refund flowers borrowed from our children?", Environment Fund Administration, (2008-2009)

"Conservation of biodiversity and ecological reconstruction of the lower basin of the River Tour - Adrian pond" AFM, (2007-2008)

"Evolution of installation of iron and sulphur oxidizing bacteria in the sulphidic mine wastes and their influence in generating acid mine drainage", GRANT CNCSIS, <a href="http://194.102.64.7/GranturiFinalizate/faces/Projects/ProjectDetails.jsp">http://194.102.64.7/GranturiFinalizate/faces/Projects/ProjectDetails.jsp</a> (2007-2008)

# Significant results

The most representative publications of the past 5 years:

- 1. Oana Mare Roșca, 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.
- 2. Damian F., Jelea S.G., Lăcătuşu R., Mihali C. The treatment of soil polluted with heavy metals using the Sinapis alba I. and organo zeolitic amendment. Carpathian Journal of Earth and Environmental Sciences, Vol. 14, No. 2, p. 409 - 422. Published: 2019.
- 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.
- Mihalescu L., Marian M., Jelea S., Pop, F., Maxim A., Vosgan Z. Research Concerning the Fighting of Polystigma rubrum Fungi under the Climate Conditions of Somcuta Mare Area Bulletin UASVM series Agriculture 76(2): 73-77. Print ISSN 1843-5246; Electronic ISSN 1843-5386. Published: 2019.
- 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.
- Monica Liliana Marian. Possibilities of Sustainable Development in Protected Natural Areas. Case Study Lazuri Village Overlaid with ROSCI 0214 Tur and ROSPA RIVER 0068 the Lower Meadow of the Tour. Proceeding of the International Conference Communication, Context, Interdisciplinarity, ISBN: 8624 978 606 - 14-3, p. 57-63.

- Published: 2019.
- 7. **Monica Liliana Marian.** Local Community Support to Polluted Sites Management. Proceeding of the International Conference Communication, Context, Interdisciplinarity, ISBN: 8624 978 606 14-3; p. 64-69. Published: 2019.
- 8. **Mihalescu L.,** Voşgan Z., **Marian M., Jelea S., Mare Roşca O.,** Pop, F., Maxim A., Cordea M. Studies Regarding the Combat of the Braches Burns Produced by the *Phomopsis vaccinii* at Blueberry Bushes Cultivated in Maramures county. Bulletin USAMV, series Agriculture 75(2): 87–92. Published: 2018.
- 9. Z Voşgan, **L Mihalescu**, **S Jelea**, A Dumuţa, F Pop, The Hygienic Quality of Raw Romanian Goat Milk Depending on the Milking Season Bulletin USAMV series Agriculture 75(1), 50-53. Published: 2018.
- Z Voşgan, L Mihalescu, R Vidican, M Marian, S Jelea, O Mare. Monitoring the Vegetation Communities on the Southern Slope of the Gutai Mountains on the Basis of Ecological Indices Bulletin USAMV series Agriculture 75(1), 54-55. Published: 2018.
- 11. **Monica Marian, Oana Mare Roşca, Lucia Mihalescu**, Zorica Voşgan. Antifungal Effect of Spice Extracts Possible Solutions for Biological Preservation of Food. Journal of Faculty of Food Engineering, Ştefan cel Mare University of Suceava, Romania, Volume XVII, Issue 2, 103 112. Published: 2018.
- 12. Alexandru Laposi, Aurel Ardelean, **Monica Marian**, Aspects of invasive plants dominated habitats use by marsh warnbler (Acrocephalus palustris) in Somes river floodplain. Carpathian Journal of Earth and Environmental Sciences, Volume: 13 Issue: 2, Pages: 515-521. Published: 2018.
- 13. **Mare Roșca Oana**, **Marian**, **M.** Alexandra Erica Pușcaș, Edita Agneta Pop, Claudia Marian and Daniel Năsui. Positive and Negative Impacts of Tourism in Breb Village. In Proceedings of the 32nd International Business Information Management Association Conference (IBIMA), 15-16 November 2018 Seville Spain. Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth. 5216-5219 p.ISBN: 978-0-9998551-1-9. Published: 2018.
- 14. Claudia Marian, Monica Marian, Mare Roşca Oana, Daniel NASUI, Lucia MIHALESCU, Zorica Vosgan and Ighian Diana. Socio-Economic Assessment of Measures to Preserve the Quality of Water Indispensable to Ecological Tourism. Proceedings of the 32nd International Business Information Management Association Conference (IBIMA), 15-16 November 2018 Seville Spain. Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth. 5205-5218 p. ISBN: 978-0-9998551-1-9. Published: 2018.
- Voşgn, Z., Mihalescu, L., Jelea, M., Marinan, M., Dumuţa A., Pop, F., Mare Roşca O., Blidar, C.F. The incidence of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) in raw goat milk collected during different seasons. Analele Universităţii din Oradea, Fascicula de Biologie, Tom XXIV, Issue 2, pp. 66-69. Print-ISSN: 1224-5119; CD-ISSN: 1842-6433; e-ISSN: 1844-7589. Published: 2017.
- Viorica, Cosier; Marian, Monica. The advent of genomics and its potential contribution to the development of quantitative genetics Romanian Biotechnological Letters. Volume: 22 Issue: 5 Pages: 12847-12859 Published: SEP-OCT 2017.
- 17. **Mare Roşca Oana**, Pop, R., **Marian, M., Mihalescua, L.,** Voşgan, Z., Glodean, I. Water quality assessment of the Usturoi Valley assisted by the macrozoobentic bioindicators. Scientific Bulletin Series D: Mining, Mineral Processing, Non-Ferrous Metallurgy, Geology and Environmental Engineering, 31 (1): 83-89. Published: 2017.
- 18. **Jelea S.G., Jelea M.,** Vosgan Z., **Mihalescu L.,** Jelea O.C. Copper toxicity on *Triticum aestivum* L and *Lactuca sativa* L: effects on germination and growth. Bulletin of University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Agriculture, Vol. 73(2): 253-261. ISSN 1843-5246, e- ISSSN: 1843-5386. Published: 2016.
- A. Dumuta, Z. Vosgan, M. Jelea, F. Pop, T. Dippong, L. Mihalescu, C. Mihali. Microbiological Aspects Considering the Production of Nutraceutical Curd Containing Onion, Animal Science and Biotechnologies, Vol.49, nr. 2, pp. 40-45. Published: 2016.

## The offer addressed to the economic environment

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

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