



ISSN 2224-4980

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

<https://doi.org/10.31407/ijeess>



Essays on Ecosystems and Environmental Research

Volume 12/4, 2022

July - December 2022

<http://ijeess.net/>

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

<https://doi.org/10.31407/ijeess>





Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Volume 12, Issue 4, July 2022 - December 2022, (Serial Number 48)



Editor in Chief

Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA; Health and Environment Association, Tirana Albania.
Earth System Science Interdisciplinary Center (ESSIC), University of Maryland College Park, USA, Consultant Scientist.

Deputy-Editor-in-Chief

Sukru Dursun, Professor, Konya Technical University, Environmental Engineering Dep., Konya-Turkey.

Massimo Zuchetti, Professor, MIT, Massachusetts Institute of Technology, Cambridge MA, USA.

Cezar Kongoli, Professor, University of Maryland College Park, Earth System Science Interdisciplinary Center (ESSIC), USA.

Selim Dogan, Professor, Konya Technical University, Environmental Engineering Dep., Konya-Turkey.

International Scientific Editorial Board

Sukru Dursun, Professor, Konya Technical University, Environmental Engineering Dep., Konya, Turkey;

Massimo Zuchetti, Professor, MIT, Massachusetts Institute of Technology, Cambridge MA, USA;

Veselin Alexandrov, Professor, National Institute of Meteorology and Hydrology, Bulgaria;

Nicola Senesi, Professor, University of Bari, Bari, Italy;

Wander Michelle M, Professor, University of Illinois at Urbana-Champaign, Urbana, Urbana, IL 61801, USA;

Vladimir Pesic, Professor, University of Montenegro, Department of Biology, Podgorica Montenegro;

Ibraim Dincer, Professor, University of Ontario, Faculty of Engineering and Applied Science, Ontario, Canada;

Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA;

Lyudmyla Symochko, Prof. Assoc. Dr. Uzhhorod National University, Faculty of Biology, Uzhhorod, Ukraine;

Zacharoula S. Andreopoulou, Professor, Aristotle University of Thessaloniki, Thessaloniki, Greece;

Mariana Golumbeanu, PhD, National Institute for Marine Research and Development "Grigore Antipa", Constanta, Romania;

Antonis K. Kokkinakis, Professor, Aristotle University of Thessaloniki, Thessaloniki, Greece;

Olivia Cioboiu, PhD, The Oltenia Museum Craiova, Popa Șapcă str. No 8, Rumania;

Nasser Modirshahla, Professor, Islamic Azad University, Department of Applied Chemistry, Iran;

Nina Liogchii, Professor, Institut of Ecology and Geografy, Republic of Moldova;

Trajce Talevski, Professor, Hydrobiological Institute, Naum Ohidski 50, 6000 Ohrid - R.Macedonia;

Alexander V. Derunkov, Professor, Dep. of Entomology, National Museum of Natural History, Washington DC, USA;

Can Ozgur Colpan, Professor, Ryerson University, Canada;

Muhammad Ashraf, Professor, University of Agriculture, Faculty of Sciences, Faisalabad 38040, Pakistan;

Roberto Mancinelli, Professor, University of Tuscia, Viterbo, Italy;
Bahrive Gulgun, Professor, Ege University, Izmir, Turkey;
Insaf Mekki, PhD, National Research Institute for Rural Engineering, Water, and Forestry (I.N.R.G.R.E.F), Ariana, Tunisia;
Hany Gaber El Shaer, PhD, IUCN Centre for Mediterranean Cooperation / Global Marine, Egypt;
Ertugrul Esmeray, Ph.D, Karabuk University, Engineering Faculty, Environmental Engineering Department Turkey;
Violeta Vidaček-Hainš, PhD, Ass. Professor, University of Zagreb, Croatia;
Cezar Kongoli, Professor, University of Maryland College Park, Earth System Science Interdisciplinary Center (ESSIC), USA;
Justas Kažys, PhD, Assoc. Professor, Vilnius University, Department of Hydrology and Climatology, Vilnius –Lithuania;
Selim Dogan, PhD, Assoc. Professor Selcuk University, Environmental Engineering Department, Konya Turkey;
Hisham Mostafa Alidrisi, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Khalid A. A. Al-Ghamdi, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Osman Taylan, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Robert J. Kuligowski, PhD, University of Maryland College P, Earth System Science Interdisciplinary Center (ESSIC), USA;
Mariia M. Fedoriak, Professor, Chernivtsi National University, Dep. of Ecology and Biomonitoring, Chernivtsi, Ukraine;
Narayan Ramappa Birasal, Associate Professor, KLE Society's G H College, Zoology Department, , Karnataka state, India;
Rana P. Singh, Professor, Babasaheb Bhimrao Ambedkar University, Dep. of Environmental Science, U.P., India;
Hayati AKMAN, Dr., Selcuk University, Seed Department, 42430 Konya, Turkey;
Fatma ÇANKA KILIÇ, Professor, Kocaeli University, Technology Faculty, Energy Systems Engineering Dep., Kocaeli, Turkey;
Ferim Gashi, Dr., University of Pristina, Department of Geography, Faculty of Mathematical-Natural Sciences, Kosovo;
Altin Dorri, Professor Assoc., Polytechnic University of Tirana, Tirana, Albania;
Alexander P. Sizykh, Professor, Russian Academy of Sciences, Siberian Institute, Irkutsk, Lermonyova, Russia;
Zeynep EREN, Professor, Ataturk University, Environmental Engineering Department, Erzurum, Turkey;
Sheida Korjani, PhD, Department of Architecture, Tabriz Branch, Islamic Azad University, Tabriz, Iran;
Maan Maarroof, PhD, Assistant Professor, University of Mosul, College of Veterinary Medicine, Iraq;
Koula Doukani, Professor, University of Ibn Khaldoun, Zaaroura, Tiaret, Algeria;
Svetla Petkova Gateva, PhD, Institute of Biodiversity and Ecosystem Research, Bulgarian Acad. of Sciences, Sofia, Bulgaria;
Rrahim Sejdiu, Professor Assistant, PhD, University of Applied Sciences-Ferizaj, Kosovo;
Mouloud BOUHOUBOU, Dr., ENS Assia Djebar - Constantine, Algeria;
Dinh Tran Ngoc Huy, Dr., Banking University HCMC, Ho Chi Minh city Vietnam-International University of Japan, Japan;
Admir Jançe, Professor Assoc., European University of Tirana, Tirana, Albania;
Nataliia P. Kovalenko, Dr., Institute of Plant Physiology and Genetics of NAS of Ukraine, Kyiv, Ukraine;

Publication Information:

International journal of ecosystems and ecology science (IJEES), ISSN 2224-4980, publishing original articles, reviews and short communications of high scientific standard on ecosystems and science ecology. By: Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA; Health and Environment Association, Tirana, Albania;
ISSN International Centre, *Bibliographic Data Section*, PARIS, FRANCE;
Bib - ID 68337; ISO standard 3297;
Key title: International journal of ecosystems and ecology science
Abbreviated key title: *Int. j. ecosyst. ecol. sci.*
ISSN 2224-4980; <http://ijeess.net/>
Frequency: four times a year. IJEES Electronic Journal Publication: Plainfield, Illinois, USA;
DOI prefix: 10.31407, <https://doi.org/10.31407/ijeess>



Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Clarivate

<https://mjl.clarivate.com/home>

Web of Science Core Collection,

Journal Citation Indicator (JCI): 2020: 0.05; 2019:0.05

<https://apps.clarivate.com/mjl-beta/search-results>

Emerging Sources Citation Index - JOURNAL LIST

<http://mjl.clarivate.com/cgi-bin/jrnlst/jlresults.cgi?PC=EX&Alpha=I>



ESCI Clarivate, <https://mjl.clarivate.com/home>

UOI license: <http://u-o-i.org/1.01/ijeess>; <http://www.u-o-i.org/index.php/SearchLicense>



DPI Digital Library USA and assign unique digital no. DPI: 16.10047.IJEES

U.S. National Library of Medicine,

NLM ID: 101726509 [Serial]; Other ID: (OCOLC)879805056;

<https://www.ncbi.nlm.nih.gov/nlmcatalog/101726509>

This journal has the status of an international journal.

Aims and Scope:

The goals of the International Journal of Ecosystems and Ecology Science (IJEES), ISSN 2224-4980, are to bring together researchers and scientists with interests in the quality of the ecosystems research results, theories, technologies, systems, tools, applications, the work in progress and experiences on ecosystems used. The main topics of interest are:

- ✓ Ecosystems
- ✓ Agro ecosystems
- ✓ Forest ecosystems
- ✓ Ecology
- ✓ Plant Ecology
- ✓ Animal Ecology
- ✓ Human Ecology
- ✓ Lakes and Rivers ecosystems
- ✓ Applied Biology
- ✓ Applied Ecology
- ✓ Applied Chemistry
- ✓ Biodiversity
- ✓ Energy
- ✓ Geology
- ✓ Bioaccumulation
- ✓ Desalination
- ✓ Water
- ✓ Soil
- ✓ Air pollution
- ✓ Climate Change
- ✓ Ecosystem restoration
- ✓ Environment toxicology
- ✓ Environment protection
- ✓ Environmental radioactivity
- ✓ Environmental legislation
- ✓ Environmental management
- ✓ Environmental education.
- ✓ Green technology
- ✓ Socioeconomic aspects in Ecosystems
- ✓ Agro tourism and National Park
- ✓ Health Care
- ✓ Food security
- ✓ Rights and Environmental Laws
- ✓ Environment Engineering
- ✓ Environment Architecture
- ✓ Eco philosophy Issue

Abstracted / Indexed / Impact Factor in:

International journal of ecosystems and ecology science (IJEES), ISSN 2224-4980,

IJEES: <http://ijeess.net/>

IJEES have an international status and has been indexed, abstracted, and have impact factors:

ISSN Center responsible of the record: CIEPS - ISSN

<https://portal.issn.org/resource/ISSN/2224-4980>

IJEES doi crossref

<https://doi.org/10.31407/ijeess>

IJEES, Volume 12/4 2022

[https://www.ijeess.net/journal-86-International-Journal-of-Ecosystems-and-Ecology-Science-\(IJEES\)-Volume-12-4,-2022.html](https://www.ijeess.net/journal-86-International-Journal-of-Ecosystems-and-Ecology-Science-(IJEES)-Volume-12-4,-2022.html)

Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Clarivate

<https://mjl.clarivate.com/home>

Web of Science Core Collection,

Journal Citation Indicator (JCI):2020: **0.05**; 2019:**0.05**

<https://apps.clarivate.com/mjl-beta/search-results>

Emerging Sources Citation Index - JOURNAL LIST

<http://mjl.clarivate.com/cgi-bin/jmlst/jlresults.cgi?PC=EX&Alpha=I>

Sciencegate cited

<https://www.sciencegate.app/source/315335/top-cited>

Scilit

<https://www.scilit.net/journal-articles/1892436>

CiteFactor: IF 2019-2020:1.40;

<https://www.citefactor.org/impact-factor/impact-factor-of-journal-International-Journal-of-Ecosystems-and-Ecology-Science-IJEES.php>

EBSCO's library products,USA

<http://www.ebscohost.com/for-publishers/for-publishers>

IARC: Journal Impact Factor (USA), IF=2017: **1.811**; IF=2016: **1.463**; =2015: **0.861**

http://iarcif.org/index.php/journal_information/show/44/0/2224-4980

Index Copernicus ICV= 2021: **100.00**; ICV= 2020: **100.00**; ICV= 2019: **100.00**; ICV= 2018: **100.00**; ICV= 2017: **98.95**;

<https://journals.indexcopernicus.com/search/journal/issue?issueId=197247&journalId=31407>

Academic Resource Index Research Bible:

<http://paper.researchbib.com/view/issn/2224-4980/10/2>

Scientific Journal Impact Factor Value 2020: **SJIF 2020 = 7.167**

<http://sjifactor.com/masterlist.php?area=all&country=al&ord=sjif>

Google scholar Cited: **h-index: 10**; **Citations 400**;

<https://scholar.google.com/citations?user=W89N8qgAAAAJ&hl=en>

MIAR

<http://miar.ub.edu/issn/2224-4980>

Directory of Research Journals Indexing (DRJI)

<http://olddrji.lbp.world/JournalProfile.aspx?jid=2224-4980>

WorldCat

https://www.worldcat.org/search?qt=affiliate_wc_org_all&ai=Directory_ashok.drji%252540gmail.com&fq=&q=2224-4980&wcbtbn2w=Go

US. National Library of Medicine, NLM ID: **101726509** [Serial]; **Other ID:** (OCOLC)879805056;

<https://www.ncbi.nlm.nih.gov/nlmcatalog/101726509>

Global Impact Factor (GIF) IF: 2015: **0.765**; 2014: **0.625**; 2013: **0.541**; IF= 2012: **0.425**;

<http://globalimpactfactor.com/journals-list/?snap=I>

CAS Chemical Abstracts Service – CAS database

<http://cassi.cas.org/search.jsp>

Journal Factor: ISSN 2224-4980

http://www.journalfactor.org/advance_search.php

Directory of Research Journals Indexing (DRJI)

<http://olddrji.lbp.world/justIncluded.aspx>

Environment-and-Nature/Biodiversity/Ecosystem.

<http://www.efita.org/Environment-and-Nature/Biodiversity/Ecosystem-Biodiversity/IJEES-details-28892.html>

NewJour : Electronic Journal&Newsletters

<http://gulib.georgetown.edu/newjour/nj2/index.html>

Environmental expert

<http://www.environmental-expert.com/magazines/?keyword=ecosystem+science>

Currently Indexing at Pro Quest

http://www.proquest.com/en-US/catalogs/databases/detail/periodicals_index.shtml

CABI

<http://www.cabi.org/default.aspx?page=1016&site=170&pid=40&xslttab=2&newtitlesonly=1&search=>

Manuscripts and correspondence are invited for publication

*Dear Professors, PhD, researchers and scholars of the field of ecosystems and related areas to, such as environmental engineering, agriculture, bio-chemistry, soil, water and air pollution, geology, forestry, urban ecology, resource economics, etc., at the moment, I declare the sending of scientific journal articles to International Journal of Ecosystems and Ecology Science (IJEES) is open. Sending of items can only be done electronically, to the following address: e-mail: editorijeess@gmail.com; 2011ijeese@gmail.com; mjedisishendeti@yahoo.com; The confirmation of receiving these items will be announced within the period of one to three weeks after sending. Whether the article is accepted or not, will be announced within a period of two to three weeks. Only original articles will be accepted, validated, and not to have or be published in other journals. Publication lasts from two to six months. All Rights Reserved Copyright by © IJEES (the first or correspondent author have responsible for the accuracy of the article). Submission guidelines and Web Submission System are available at: <https://www.ijeess.net/page-6-Guide-for-authors.html>;
Note: If the paper is published in another journal or if it includes false or inaccurate claims, it will be rejected or removed automatically as that constitutes a violation. Zero tolerance!*

Editorial Office:

*IJEES Electronic Journal Publication: Plainfield, Illinois, USA; E-mail: editorijeess@gmail.com;
Health and Environment Association, Tirana, Albania; E-mail: mjedisishendeti@yahoo.com;*

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

DOI: <https://doi.org/10.31407/ijeess>

Volume 12/4, 2022

DOI: <https://doi.org/10.31407/ijeess12.4>

Table of contents:

Iralda Xhaferaj, ROAD SAFETY IMPACTS OF SIGHT DISTANCE CRITERIA ACCORDING TO ALBANIAN CODE, page 173-180;

DOI: <https://doi.org/10.31407/ijeess12.421>

Nguyen Dinh Trung¹, Huy Dinh Tran Ngoc², Ly Lan Yen³, Nguyen Trong Diep^{4*}, SOLUTIONS FOR INDUSTRIAL CLUSTERS FOR SOCIO-ECONOMIC DEVELOPMENT IN HANOI CITY AND PROTECTING CONSUMER INTERESTS, page 181-188;

DOI: <https://doi.org/10.31407/ijeess12.422>

Nguyen Dinh Trung¹, Ly Lan Yen^{2*}, Huy Dinh Tran Ngoc^{3*}, Nguyen Trong Diep^{4*}, WHICH SUITABLE MODEL FOR DEVELOPING INDUSTRIAL CLUSTERS IN HANOI VIETNAM? AND MATTERS OF PROTECTING CONSUMERS IN CLUSTERS, page 189-194;

DOI: <https://doi.org/10.31407/ijeess12.423>

Ibtissam Baghriche^{1,2,3}, Sakina Zerizer^{1,2*}, Zahia Kabouche¹, Assia khalfallah¹, THE PROTECTIVE EFFECT OF *ASTRAGALUS ARMATUS* ON CARDIOVASCULAR DISEASES INDUCED BY HYPER HOMOCYSTEINEMIA IN MICE, page 195-204;

DOI: <https://doi.org/10.31407/ijeess12.424>

Hossein Moradi Dehnavi¹, Narges Eskandari², Haider Romella³, Ahmad Reza Pakzad^{4*}, THE IMPORTANCE OF NUTRITION BASED ON INDIVIDUALIZED TEMPERAMENT (MIZAJ), FROM THE VIEW POINT OF TRADITIONAL PERSIAN MEDICINE AND THE FINDINGS OF MODERN MEDICINE, page 205-212;

DOI: <https://doi.org/10.31407/ijeess12.425>

Kadir DELİGÖZ^{1*}, Muhammed Furkan TAŞCI², FREEGANISM IN CONSUMPTION SOCIETY: A NETNOGRAPHIC RESEARCH STUDY, page 213-226;

DOI: <https://doi.org/10.31407/ijeess12.426>

Abdouraman^{12*}, Tchobsala¹, Megueni Clautilde², Boubakary Simon³, SPACIO-TEMPORAL DYNAMIC OF THE VEGETATION AND DEGRADATION FACTORS OF THE VEGETATION COVER AROUND LAGDO LAKE, NORTH CAMEROON, page 227-234;

DOI: <https://doi.org/10.31407/ijeess12.427>

Kenan ÇOLAK¹, Engin KEPENEK^{2*}, Ziya GENÇEL², Kıvanç ERTUGAY², THE USE OF GEOGRAPHIC INFORMATION SYSTEMS IN PREVENTING ILLEGAL EXCAVATIONS FOR THE DESTRUCTION OF CULTURAL HERITAGE, page 235-244;

DOI: <https://doi.org/10.31407/ijeess12.428>

Olga Titarenko^{1*}, Ildus Ibatullin², Volodymyr Nedashkivskyi³, Nataliia Nedashkivska⁴, Vitalii Stepanchenko⁵, ACCUMULATION OF ZN AND CU BY CEREAL AND LEGUMINOUS VEGETATION UNDER AGROCHEMICAL IMPROVEMENT OF NATURAL FODDER LANDS OF THE RIGHT BANK FOREST STEPPE OF UKRAINE, page 245-250;
DOI: <https://doi.org/10.31407/ijeess12.429>

Elena Ivanovna Sivkova^{1*}, Vladimir Nicolaevich Domatskiy¹, INFLUENCE OF ENVIRONMENTAL FACTORS ON THE FAUNA OF THE BLOOD-SUCKING HORSEFLIES (DIPTERA, TABANIDAE), page 251-258;
DOI: <https://doi.org/10.31407/ijeess12.430>

Natalia A. Sadovnikova^{1*}, Kirill. V. Kuznetsov¹, INTERRELATION OF INDICATORS OF THE SUSTAINABLE DEVELOPMENT GOALS, POVERTY AND INNOVATIVE GROWTH, page 259-266;
DOI: <https://doi.org/10.31407/ijeess12.431>

M. N. Tolmachev^{1*}, O. A. Petrova¹, APPROACHES TO ASSESSING AND SUBSTANTIATING MEASURES FOR FINANCING THE DEVELOPMENT OF TRANSPORT INFRASTRUCTURE IN THE ARCTIC ZONE OF THE RUSSIAN FEDERATION, page 267-274;
DOI: <https://doi.org/10.31407/ijeess12.432>

Sarwar Khalid¹, Hilal Kivrak^{2*}, Duygu Alpaslan¹, Sefika Kaya², Nahit Aktas³, A REMARKABLE SYNERGIC EFFECT OF POLY (ACRYLIC ACID) HYDROGEL ANCHORED Pd CATALYSTS IN FORMIC ACID ELECTROOXIDATION REACTION, page 275-282;
DOI: <https://doi.org/10.31407/ijeess12.433>

Alexandr Anatolievich Mokhov^{1*}, Natalya Semenovna Posulikhina¹, Alexey Victorovich Pekshev¹, Mikhail Aleksandrovich Gorbunov^{2,3}, Alla Andreevna Neznamova^{4,5}, LEGAL PROVISIONS FOR THE SUSTAINABLE DEVELOPMENT OF BIORESOURCE CENTERS IN RUSSIA, page 283-290;
DOI: <https://doi.org/10.31407/ijeess12.434>

Olga Mikhailovna Dyuzhilova^{1*}, Dmitry Anatolyevich Tsapuk², Anna Sergeevna Filonova³, Natalia Anatolievna Kozlova⁴, Vlada Sergeevna Lavelina⁵, DEVELOPMENT OF BANK CREDITING OF SERVICE ENTERPRISES, page 291-296;
DOI: <https://doi.org/10.31407/ijeess12.435>

Boris Artemenko^{1*}, Elena Bystray¹, Irina Evtushenko¹, Irina Ivanova¹, Irina Kolosova¹, Nadezhda Permyakova¹, METHOD OF PHYSICAL EDUCATION AND HEALTH WORK IN MUNICIPAL PRESCHOOL EDUCATIONAL ORGANIZATIONS: DEVELOPMENT OF PHYSICAL QUALITIES IN SENIOR PRESCHOOL CHILDREN, page 297-304;
DOI: <https://doi.org/10.31407/ijeess12.436>

Abdul Manan^{1,2*}, Shaikh Saddam^{1,3*}, Ghulam Yasin Shaikh^{1,3*}, Arz Muhammad Umrani⁴, Ghazala Yasmeen⁵, Noman Khan¹, Umair Safdar⁴, Deepti Shandilya⁶, EFFICACY OF SOME MEDICINAL PLANT EXTRACTS AGAINST “COLLECTROTICHUM CAPSICI” CAUSING ANTHRACNOSE DISEASE OF CHILLI, page 305-312;
DOI: <https://doi.org/10.31407/ijeess12.437>

A.N. Siben^{1*}, A.A. Gavrichkin¹, M.A. Levchenko¹, A.A. Gavrichkina¹, REINDEER HELMINTHIASES IN THE CONDITIONS OF THE PRIURALSKY DISTRICT OF THE YAMALO-NENETS AUTONOMOUS DISTRICT, RUSSIA, page 313-320;
DOI: <https://doi.org/10.31407/ijeess12.438>

Khoren Tonoyan^{1*}, Lyubov Tarasova², Alexander Korzhenevskiy³, Sergey Gasanbekov⁴, Stepan Popov⁵,
EVALUATION OF THE INFLUENCE OF PHYSICAL FITNESS OF YOUNG ATHLETES UNDER THE
INFLUENCE OF SPECIFIC TRAINING LOADS, page 321-324;
DOI: <https://doi.org/10.31407/ijees12.439>

**Stepan I. Mezhov^{1*}, Alexander V. Yashchenko¹, Kirill A. Belokrylov², Olga S. Belokrylova², Tatyana A.
Tereshchenko³, Anastasiya V. Ostrovskaya^{4*}, Galina G. Vukovich⁴,** CHANGES IN THE LEAN
MANUFACTURING PARADIGM, page 325-330;
DOI: <https://doi.org/10.31407/ijees12.440>