European Proceedings of Life Sciences

Volume 1

Series Editors

Editor-in-Chief
Alexey L. Nikiforov-Nikishin (PhD), Professor
Moscow State University of Technology and Management. K.G. Razumovsky (PKU), Russia

Associate Editors
Igor A. Nikitin (PhD)
Moscow State University of Technology and Management. K.G. Razumovsky (PKU), Russia

Sergey I. Filipenko (PhD), Associate Professor
Moscow State University of Technology and Management. K.G. Razumovsky (PKU), Russia

Rodica Cheban (PhD)
State Agrarian University of Moldova, Moldova

Sergey V. Beketov (PhD)
Russian Academy of Sciences, Russia

European Proceedings of Life Sciences (EpLS) is an open access, peer-reviewed and refereed series. The main objective of the EpLS is to enhance understanding in life sciences by providing a platform for international scholars to disseminate their work.

The journal covers a wide range of contemporary topics include but are not limited to biology, biotechnology, microbiology, and ecology, environmental engineering, biomolecular engineering.

The EpLS publishes theoretical, experimental or application-based works with the objective of contributing to a greater understanding and development of life sciences. EpLS publishes either monographs for example, master thesis/doctrinal dissertations or edited volumes based on the outcomes of conferences.

Once published, all proceedings are submitted for evaluation and possible coverage in Web of Science Core Collection™ Conference Proceedings Citation Index - Social Sciences & Humanities (CPCI-SSH).

More information about this series at: https://www.europeanproceedings.com/book-series/epls
BIOTECHNOLOGY, ECOLOGY, NATURE MANAGEMENT

Selected, peer-reviewed papers from
Biotechnology, ecology, nature management (BENM 2021), May 25, 2021, Moscow State University of Technology and Management named after K.G. Razumovsky (FCU) (Moscow, Russian Federation)

Edited by:
Sergey Valerievich Beketov, Igor Alekseevich Nikitin

Editor(s) Affiliation(s):
Sergey Valerievich Beketov, (PhD)
Institute of General Genetics. N.I. Vavilov Russian Academy of Sciences, Russian Federation

Igor Alekseevich Nikitin, (PhD)
Moscow State University of Technology and Management named after K.G. Razumovsky (the First Cossack University), Russian Federation
Preface

The volume contains selected, peer-reviewed papers from the International Scientific and Practical Conference "Biotechnology, ecology, nature management" (BENM 2021) which was held on May 25, 2021 in Moscow State University of Technology and Management named after K.G. Razumovsky (FCU) (Moscow, Russian Federation)

The objective of conference has a comprehensive nature of assessing the development of biotechnologies, the use of green technologies, organic farming, with an in-depth consideration of issues of water use, water purification.

Importance of the conference is to pay special attention to environmental issues of regulation and regulation of water pollution.

The conference itinerary comprised keynote speeches, plenary sessions, and workshop, which discussed a wide range of issues: the current state of water quality, biodiversity conservation and the development of the fishery complex, the introduction of innovative technologies at industry enterprises, staffing, as well as mechanisms for interaction between science and business and education in aquatic ecology and aquaculture.

The conference was attended by leading scientists in the field of aquatic ecology and fisheries, representatives Federation Council, State Duma, Ministry agriculture of the Russian Federation, specialized scientific research institutes of the Russian Academy of Sciences, educational organizations, expert community, international associations and unions, representatives of the business community.

50 papers were accepted, and 17 papers were presented at the conference. Each author was allotted 15 minutes to present their paper. The conference's international flavour was provided by participants who came from Republic of Moldova, Pridnestrovian Moldavian Republic, Republic of Belarus, Mauritius.

The review process for the papers was stringent. The software program "Antiplagiat.VUZ" was used for plagiarism detection. Each submission was subjected to a double-blind review process by two reviewers. The number of submissions received and reviewed was 50 and the number of submissions accepted was 40 indicating an acceptance rate of 80%. A total of 15 reviewers were involved in the review process.

30 January, 2021

Conference Chairs
Chairs

Chair, Sergey Nikolaevich CHEBOTAREV, Doctor of Physics and Mathematics, Professor
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

Co-Chair, Alexey Lvovich NIKIFOROV-NIKISHIN, Doctor of Biological Sciences, Professor
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

Co-Chair, Sergey Gerasimovich MITIN, Doctor of Economics, Professor,
Senator of the Russian Federation, First Deputy Chairman of the Federation Council Committee on Agrarian and Food Policy and Environmental Management, Russian Federation

Co-Chair, Pyotr Aleksandrovich CHEKMAREV
Chairman of the RF CCI Committee for the Development of the Agroindustrial Complex, Plenipotentiary Representative of the Chuvash Republic under the President of the Russian Federation, Honored Worker of Agriculture of the Russian Federation, Academician of the Russian Academy of Agricultural Sciences, Doctor of Agricultural Sciences, Russian Federation

Editorial Committee Members

▪ Rodica CEBAN
The State Agrarian University of Moldova, Republic of Moldova

▪ Sergey FILIPENKO
Transnistrian State University named after T.G. Shevchenko, Pridnestrovian Moldavian Republic

Organizing Committee Members

▪ Viktor Aleksandrovich KLIMOV
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

▪ Dmitry Lvovich NIKIFOROV-NIKISHIN
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

▪ Yuri Georgievich SIMAKOV
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

▪ Maxim Petrovich KHARCHENKO
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU), Russian Federation

Keynote Speakers

Water Resources Management in Moldova
Rodica CEBAN, Doctor of Agricultural Sciences, Associate Professor of the Department - Natural Resources Management, State Agrarian University of Moldova, Republic of Moldova

Monitoring of the Quality of Natural Water Sources in the Republic of Belarus
Svetlana Nikolaevna BAITOVA, Ph.D., Associate Professor, Head of the Department of Technosphere Safety and General Physics, Belarusian State University of Food and Chemical Technologies, Republic of Belarus

Eurasian Aquaculture. Ecosystem approach, New Biotechnologies, Environmental Standards
Alexander Viktorovich NEVREDINOV, Head of the Eurasian Aquaculture Alliance, Head of the Aquaculture Commission of the Public Council under the Federal Agency for Fishery of the Government of the Russian Federation, Russian Federation
Plenary Speakers

Scientific and Expert Support for the Development and Approval of Fishery MPCs
Andrey Vyacheslavovich TSAREV, Deputy Head of the Federal State Budgetary Institution "Central Office for Fisheries Expertise and Standards for the Conservation, Reproduction of Aquatic Biological Resources and Acclimatization", Russian Federation

The State of Aquaculture About. Mauritius and Prospects for Cooperation
with MGUTU named after K.G. Razumovsky
Svetlana Viktorovna BARTENEVA, Representative of the organization for the conservation of marine biofauna of the island of Mauritius, Mauritius

Workshop Leaders

Innovative Approaches in Education in The Direction of Aquatic Biological Resources and Aquaculture
Alexey Lvovich NIKIFOROV-NIKISHIN, Doctor of Biological Sciences,
Moscow State University of Technology and Management named after K.G. Razumovsky (FCU),
Russian Federation

Sponsors

K.G. Razumovsky Moscow State University of Technologies and Management
# Table of Contents

**No: 1**  
Title: Change Specifically Responses To Mtor Inhibition Based On Brain Of N. Guentheri  
*Pages: 1 - 9*  
Author(s): Y. S. Vershinina, G. S. Krasnov, Z. G. Guvatova, A. V. Kudryavtseva

**No: 2**  
Title: Mitotic Epithelial Of The Lens Of Rainbow Trout Exposed To Benzene Compounds  
*Pages: 10 - 19*  
Author(s): Yu. G. Simakov, N. I. Kochetkov, Yu. A. Kuchikhin, S. V. Smorodinskaya

**No: 3**  
Title: The Quality Monitoring Of Combined Feeds For Trut And Sturgeon Fishes  
*Pages: 20 - 24*  
Author(s): A. A. Klimuk, S. V. Beketov, L. L. Brezhnev, I. R. Selivanova

**No: 4**  
Title: Effect Of Electromagnetic Radiation Of Extremely Low Frequencies On Carp Development  
*Pages: 25 - 42*  
Author(s): D. V. Shumeiko, A. D. Markov, A. V. Abramchuk, V. N. Khorosheltseva

**No: 5**  
Title: The Rare And Protected Algal Species Of The Barents Sea  
*Pages: 43 - 50*  
Author(s): T. L. Kalita, S. V. Lohankova, K. O. Yangulova, A. A. Kornuhin

**No: 6**  
Title: Analysis Of The Microflora Of Mucus Secretions Of The Worm (Eisenia Fetida)  
*Pages: 51 - 58*  
Author(s): L. I. Buchkova, A. K. Ponomarev, O. G. Bugaev, T. I. Horeva

**No: 7**  
Title: Installation For Making Fried Grill Ice Cream  
*Pages: 59 - 67*  
Author(s): Aleksandr A. Krasnichenko, Dmitry R. Leskevich, Dmitriy N. Akimov, Vadim V. Tuyakov, Gamzat M. Aliev

**No: 8**  
Title: Freshwater Artificial Reefs As A Way To Increase Of The Productivity  
*Pages: 68 - 74*  
Author(s): T. L. Kalita, O. N. Mingaleova, D. S. Khatuntsov, A. N. Zhavnerov

**No: 9**  
Title: Fish Protection, In Relation To The Hydraulic Structures Of The Moscow Canal  
*Pages: 75 - 85*  
Author(s): A. V. Gorbunov, V. A. Klimov, T. L. Kalita, V. R. Barbashov

**No: 10**  
Title: Indirect Evaporating Cooling In The Passenger Car Air Conditioning System  
*Pages: 86 - 97*  
Author(s): Aleksandr A. Krasnichenko, Dmitry P. Gashin, Denis E. Alexandrov, Andrej D. Larkin, Dmitriy G. Goncharov

**No: 11**  
Title: Determination Of The Threshold Concentration Of Anolyte For Freshwater Fish Species  
*Pages: 98 - 104*  
Author(s): Yu. A. Kuchikhin
No: 12  
Title: Determining The Maximum Food Dose For Cyprinus Carpio After Transplantation  
Pages: 105 - 111  
Author(s): Yu. A. Kuchikhin, A. S. Shavrin, A. A. Zyulkin, I. R. Selivanova

No: 13  
Title: Determination Of The Maximum Temperature Of The Content Of Cyprinus Carpio  
Pages: 112 - 117  
Author(s): Yu. A. Kuchikhin, A. S. Shavrin, A. A. Zyulkin, T. P. Khairullina

No: 14  
Title: Histochemical And Morphometric Peculiarities In Philodina Roseola Rits Important For Gerontological Studies  
Pages: 118 - 127  
Author(s): L. I. Buchkova, S. V. Smorodinskaya, Yu. G. Simakov, K. F. Gross

No: 15  
Title: Application Of Sodium Alginate Capsules As An Innovative Method Of Adding Preparations  
Pages: 128 - 134  
Author(s): A. P. Minaenko, Yu. A. Kuchikhin, A. N. Zhavnerov, V. A. Gribkova

No: 16  
Title: Bioindication Of The State Of The Losiny Ostrov Forest  
Pages: 135 - 141  
Author(s): Natalya A. Mishakova, Zinaida S. Ruchkina, A. A. Nagiev

No: 17  
Title: Environmental Responsibility Of The Corporation Within The Framework Of Sustainable Development  
Pages: 142 - 148  
Author(s): L. V. Gaidarenko, Kapitsa G. P., Lyubovskaya N. M.

No: 18  
Title: Morphological Features And Secretory Activity Of Inguinal Gland Of Martes Zibellina L.  
Pages: 149 - 159  
Author(s): Zinaida S. Ruchkina, Alexandra Yu. Ryzhkova, Tatyana I. Horeva

No: 19  
Title: Influence Of Chelated Mineral Supplement On Rabbit Productivity  
Pages: 160 - 166  
Author(s): Natalia A. Golovacheva, Yulia V. Tolmacheva, Anastasia A. Klimuk, Evgenia V. Korenduhina

No: 20  
Title: Biochemical Status Of Rabbit Blood When Using An Organomineral Supplement  
Pages: 167 - 174  
Author(s): Natalia A. Golovacheva, Larisa I. Bychkova, Ekaterina A. Safronova, Anna Yu. Kondrateva

No: 21  
Title: Diseases Of Rodents Dangerous To Humans Found In Urbanized Ecosystems  
Pages: 175 - 180  
Author(s): Viktoriya V. Eroseeva, Sergey L. Yablochnikov, Olga V. Maslennikova, Maksim N. Mahiboroda

No: 22  
Title: Ecological Justification For Acclimatization Of The Caucasian Bison In The Altai Nature Reserve  
Pages: 181 - 185  
Author(s): A. Yu. Kondratieva, A. V. Kozlov, I. A. Glebova, S. V. Beketov

No: 23  
Title: Model Of An Artificial Reef For Increasing The Bioproductivity Of Donuzlav Lake  
Pages: 186 - 191  
Author(s): T. P. Khairullina, T. L. Kalita, N. M. Naumov, A. Vaganova
No: 24
Title: Increasing The Nutritional Value Of Artemia Salina Nauplii By Enriching Haematococcus Pluvialis
Pages: 192 - 197
Author(s): A. K. Ponomarev, L. L. Brezhnev, A. V. Cherenkov

No: 25
Title: Genetic Symbols For Mutations In Color And Fur Structure In Chinchillas
Pages: 198 - 204
Author(s): A. V. Kozlov, M. Bakiev

No: 26
Title: Analysis Of Changes In The Hydrochemical, Hydrobiological And Geoeconomic State Of Borisov Pond
Pages: 205 - 210
Author(s): M. O. Gnatenko, M. D. Tsař'kov, Yu. V. Bogatykh, V. A. Klimov

No: 27
Title: Hydrochemical Parameters Of Growing Trout On Water From An Artesian Well
Pages: 211 - 215
Author(s): A. K. Ponomarev, L. L. Brezhnev, V. A. Klimov, A. S. Polyakov

No: 28
Title: Regeneration Of Caudal Fin The Influence Of The Food Additive «Chigyany Roz»
Pages: 216 - 228
Author(s): V. A. Purtskhvanidze, S. V. Smorodinskaya, Yu. G. Simakov, M. V. Medyankina

No: 29
Title: Integration Of Water Bodies Into The Structure Of Public Urban Spaces
Pages: 229 - 243
Author(s): V. A. Kurochkina, S. K. Khlebnikov, M. D. Melnikova

No: 30
Title: Algorithms For Preventive Measures For Disease Prevention And Antioxidant Protection
Pages: 244 - 258
Author(s): V. A. Purtskhvanidze, O. A. Orlovseva, S. N. Tefikova, M. V. Klokonos

No: 31
Title: The Reclamation Of Landscapes By Increasing The Biological Productivity Of Water Bodies
Pages: 259 - 265
Author(s): I. A. Pasko, A. V. Gorbunov, I. A. Glebova, V. A. Barbashov

No: 32
Title: Rheological Properties Of Suspensions
Pages: 266 - 273
Author(s): A. T. Vasyukova, I. U. Kusova, A. E. Alekseev

No: 33
Title: Application Of Modern Technologies For Processing Plant Waste
Pages: 274 - 279
Author(s): A. R. Nikolaev, A. N. Zhavnerov, B. K. Fedorov, A. P. Minaenko

No: 34
Title: Role Of Small Architectural Structures In The Organization Of Urban Open Public
Pages: 280 - 292
Author(s): V. A. Kurochkina, V. A. Klimov, M. O. Belova, E. K. Kalinichenko

No: 35
Title: Ecological And Economic Aspects Of State Regulation Of Land Resources Use
Pages: 293 - 302
Author(s): L. V. Gaidarenko, Kapitsa G. P., Lyuhovskaya N. M.

No: 36
Title: Increasing The Efficiency Of Industrial Crystallization Of Sucrose
Pages: 303 - 308
Author(s): Natalia N. Lebedeva, Anatoliy A. Slavyanskiy, Vera A. Gribkova, Natalia V. Nikolaeva
No: 37
Title: Improvement Of The Technology Of Separation Of Utfel I Crystallization In Batch Centrifuges
Pages: 309 - 318
Author(s): Anatoliy A. Slavyansky, Natalia V. Nikolaeva, Vera A. Gribkova, Natalia N. Lebedeva, Daria P. Mitroshina

No: 38
Title: Development Of Sugar Cookies With A Predisposition To Disrupt The Folate Cycle
Pages: 319 - 325
Author(s): Igor A. Nikitin, Sherzodkhon Mutallibzoda, Daria A. Velina, Natalia N. Lebedeva

No: 39
Title: A New Direction Of Using Chinchilla Hair (Chinchilla Lanigera) In Farm Animal Husbandry
Pages: 326 - 333
Author(s): A. V. Kozlov, L. V. Gaidarenko