
CONTENTS

ECOLOGICAL RESTORATION AND DEVELOPMENT OF UKRAINE	9
Bondar O., Mashkov O., Pryszyn V. Directions for application of a systemic approach to the ecological revival and development of Ukraine.....	9
ENVIRONMENTAL SAFETY	18
Boiko V. Evaluation of the effectiveness of environmental protection measures at gas stations.....	18
Dychko A., Demchuk L., Kryukivska L., Kagukina A., Belmega I. Engineering support of pyrogenic resistance and ecological stabilization of forest ecosystems in areas of intensive technogenesis.....	23
Konovaliuk S., Kireitseva H., Kireitsev V. Formation of pollutant emissions at the technological stages of cement production.....	28
Kryvenko G. Safe Operation of Industrial Pipelines as a Factor of Sustainable Development.....	33
Melnyk-Shamrai V., Shamrai V., Patseva I., Tsyhanenko-Dziubenko I. Ecological consequences of forest fires and improvement of the fire protection system in forest ecosystems of Zhytomyr region.....	39
Midyk S., Senin S., Korniyenko V., Semenko L., Khyzhnyak S., Berezovskyi O., Poltavchenko T., Ladohubets E. Assessment of the level of pollution and environmental risks based on the content of a broad spectrum of PCB congeners in environmental components.....	48
Prykhodko K.V. Implementation of an autonomous self-evolving and self-healing algorithm for AI-orchestrated hybrid pollution models in real-time roadside pollution control systems.....	53
Stepova O., Tiahnii L. Biological treatment facility – bioWT bioplateau.....	57
ECOLOGY OF AGRICULTURAL PRODUCTION	63
Kovka N.S., Verhelis V.I. Biotechnological potential of effective microorganisms in restoring soil fertility and increasing the resistance of oilseed radish (<i>Raphanus sativus</i> var. <i>Oleiformis</i>) plants in agroecosystems.....	63
Samar A. The ecologization of chemical training for future agronomists as the foundation for the formation of professional competence in the context of sustainable development.....	74
ECOLOGY OF PRODUCTION	78
Vladimirov R. Mathematical modeling in empirical and research problems of hydrocarbon fields geology.....	78
Kasyanenko D., Ulytskyi O., Dyachenko N. Development of an integral criterion of ecological balance of the territory for quarry and mixed development systems (on the example of the Gulyaipil deposit).....	83
Klid V., Kharchenko Y., Demchyna R. Toxic effects of microplastics on aquatic ecosystems and humans.....	89
Kovrov O., Kulikova D., Balanyuk A., Ishchenko Yu., Bohun A. Study of phytocoenosis and biocrust microorganisms biodiversity of the “Petrovskiy” industrial waste dump of PJSC “CGOK”, Kryvyi Rih.....	93
ECOLOGY OF WATER RESOURCES	100
Bobkov M., Pitsil A., Nykytiuk Yu., Vyskushenko D., Komorna O. Monitoring of Hydrochemical Indicators of the Teteriv River within the City of Zhytomyr.....	100
Bozhko T. Ecological and Toxicological Factors of Transition Between Saprobic Zones (Case Study of Specific Water Segments in the Siversky Donets River Basin).....	112
Vasenko O., Cherba O. A comprehensive approach to assessing the monetary value of ecosystem services provided by water bodies.....	120
Pasichnyk M., Hryhoriichuk V., Kushnir T. Morphological characteristics and water regime of the Sovytsia Stavchanska river and its tributaries.....	126
Daus M. Anthropogenic pressure and assessment of water quality in the Khadzhide river basin.....	134
Krysinska D., Berkan K., Tymchenko I. Evaluation of physiological completeness indicators of drinking water from bottling points in the city of Mykolaiv.....	142
Magas N. Water Quality and Ecological Risk of the Inhul River under Climate Change and Anthropogenic Pressure.....	152

Ostapenko V., Veselovskyi D., Makarova E., Grygorieva L. Accumulation of chemical and radionuclide pollutants by aquatic plants in the Southern Buzka river ecosystem.....	168
Petrovska M., Zakharova V., Vanyo N. Environmental and hygienic assessment of the water supply systems of the city of Mykolaiv within the Dniester river basin.....	173
Khomenko O., Zhytska L., Papach V., Chastokolenko I. Ecological assessment of the quality of groundwater of the municipal enterprise «VODGEO» of the city of Smila and promising ways to improve the technology of their purification.....	178
ECOLOGY OF LAND RESOURCES.....	187
Babenko V., Mandrykh O. Geoecology as an interdisciplinary tool for studying the level of soil contamination by heavy metal radionuclides.....	187
Rudenko S., Rudenko V. Nature-resource potential of Ukrainian ethnic (historic-geographical) lands in present-day dimension.....	192
Shevchyk-Kostiuk L.Z., Romaniuk O.I., Romaniuk H.V., Boretska I.Yu. Using sunflower husks for the remediation of oil-contaminated soils.....	197
ECOLOGY AND CONSTRUCTION.....	204
Oliinyk T., Makovetska O., Romaniuta Ye. Energy-efficient architecture of public buildings through biomorphic-algorithmic synthesis.....	204
ECOLOGY OF TRANSPORT.....	211
Sheludchenko L., Komarnitskyi S., Firman Yu. Theoretical framework for the environmentalization of transport and logistics activities in the context of sustainable development principles.....	211
URBAN ECOLOGY.....	216
Bessonova V., Ivanchenko O., Kazinyan A. Formation of green corridors in the left-bank area of Dnipro city.....	216
ECOLOGY OF WETLAND SYSTEMS.....	231
Vergelska N., Vlasenko O., Pokshevnytskyi A. A Cascade Geochemical Effects Model of Industrial Peat Extraction on Adjacent Protected Areas.....	231
Masovets B., Sukhodolska I., Portukhai O., Franchuk M. Changes in the chemical composition of water in different biotope types of the Somyne marsh complex (Rivne Nature Reserve).....	239
ECOLOGY OF BIODIVERSITY.....	246
Hulai V. Scientific characterization of the proposed national-level landscape reserve «Dnipro floodplain».....	246
Kovtun T. Dynamics of biodiversity indicators of Noctuoidea (Lepidoptera) group of Zhytomyr's urban and suburban ecosystems.....	252
Lutsiuk T., Kolodii V., Hordii N. Population dynamics of rare species in the context of anthropogenic pressure.....	259
Sikora V., Hryhorchuk I. Phytoindication potential of synanthropic plants in urbanized environments.....	263
ECOSYSTEM ECOLOGY.....	268
Zhytova O., Moroz V., Shelyuk Yu. Organization of fire prevention and fire-prevention agitation in forest ecosystems of the «Stolychnyi forest office» branch of SE «Forests of Ukraine».....	268
Pichura V., Potravka L. War-induced degradation of irrigated ecosystems of the Kherson region: geoinformation and remote sensing analysis.....	274
ENVIRONMENTAL MONITORING.....	286
Buslenko L., Tepliuk V. Biomonitoring of game animals as an indicator of the state of natural ecosystems in the context of anthropogenic pressure.....	286

Fedoniuk V., Pavlyuk M. Comparative analysis of climate comfort according to the V.G. Boksha bioclimatic index in Lutsk and Svityaz.....	293
ENVIRONMENTAL SAFETY OF PETROL STATIONS.....	299
Radomska M.M., Huz V.V. The assessment of population exposed to the risks of filling stations operation.....	299
MONITORING THE ENVIRONMENTAL CONSEQUENCES OF MILITARY ACTIONS.....	307
Hrebeniuk T., Bronytskyi V., Han O., Kot I. Integration of remote sensing data and CAD modeling into environmental impact assessment and post-war recovery processes.....	307
CLIMATE CHANGE.....	313
Kovalenko Yu., Lomakina O. Trends in global greenhouse gas emissions and extreme heat in Ukraine: projected climate risks	313
Matukhno O. Transformation of Ukraine’s Climate Policy in the Conditions of War and European Integration. Assessment through the Prism of the Climate Change Performance Index.....	320
Sovhira S., Kochubei O., Dushechkina N. Climate change monitoring due to inorganic substances pollution of the Southern Bug river.....	327
WASTE MANAGEMENT.....	332
Boyko T., Dochynets V., Korol K., Popovych N., Shuplat T. Environmental risks of operating municipal waste landfills within urbanized areas.....	332
Serha T., Holik Yu. Moisture and ash content of domestic waste and peat from deposits in the Poltava region.....	339
Sorochynska O.L. An environmentally sustainable approach to demolition waste in the reconstruction process of Ukraine.....	345
ENVIRONMENTAL MANAGEMENT PRACTICE.....	353
Herasymchuk O., Shevchuk L., Vasileva L. Cadastral support for a landscape-based approach to the management of land and water systems at the regional level.....	353
THEORETICAL ECOLOGY.....	359
Butenko O., Karamushko A., Vasiutynska K., Melnyk S., Byzova M. Cross-Border Cooperation as a Mechanism for Achieving the Sustainable Development Goals.....	359
Zelenchuk I., Sonko S. Reclamation and phytoremediation in landscape-ecological rehabilitation of anthropogenically transformed landscapes.....	368
Kuznietsov S.I., Bezpachenko V.M., Semchenko O.O., Ivkina Ye.S. Study of kinetic parameters of catalytic additive oxidation of carbon monoxide.....	377
Lavrinenko K., Spriahailo O.A., Spriahayilo O.V., Havryliuk M., Iliukha O., Shevchyk V. Citizen science as a tool for monitoring invasive species (a case study of the Cherkasy region).....	382
Parakhnenko V., Goncharuk V., Mandebura S. Development of an integrated environmental inspection system to improve the environmental safety of natural and urban areas based on general ecology.....	392
Yanenko V. Development and testing of a scoring system for environmental risk assessment of avifauna in the influence zone of wind farms.....	399
AUTHORS’ CREDENTIALS.....	405