CONTENTS

EXPERIMENTAL BOTANY	1
ARTIFICIALLY INDUCED POLYPLOIDY OF INDUSTRIAL (Mishchenko S. V.)	2
Genetic basis of polyploidization Methods of obtaining hemp polyploids	4
3. Influence of polyploidy on biological traits of hemp (morphological, anatomical, biochemical and sexual)	11
4. Influence of polyploidy on breeding traits of hemp and cannabinoids content5. Features of crossing hemp plants with different ploidy,	16
obtaining triploids and meiotic autotetraploids	20
ECOLOGY	28
ANALYSIS THE STATE OF ENVIRONMENT BY BIOLOGICAL METHODS (Hoivanovych N. K., Voloshanska S. Ya., Monastyrska S. S.) 1. Materials and methods	32
FAUNISTIC OVERVIEW AND STRUCTURAL ORGANIZATION OF TAXONOMIC GROUPS OF ZOOPLANKTON OF THE GLYNNA NAVARIA RESERVOIR (EASTERN GALICIA) (Ivanets O. R.)	56
Faunal review of the zooplankton of the Glynna Navaria reservoir Structural organization of taxonomic groups of zooplankton of the Glynna Navaria reservoir	58
PREGULATION OF THE DEVELOPMENT OF MOUNTAINOUS AREAS OF THE LVIV REGION IN THE CONTEXT OF ENVIRONMENTAL PROBLEMS	
(Kalyn B. M., Bryndzia I. V., Levkovych U. R.)	
Analysis of the structure of land use Forest resources	
3. State of water resources in the region	
4. Problems of waste management5. Possibilities and ecological threats to the development	81
of mountainous areas of the Lviv region	82

MODERN ENVIRONMENTAL PROBLEMS AND DEVELOPMENT	
OF BALANCED NATURE USE IN THE TERRITORIAL	
COMMUNITIES OF UKRAINE	
(Kvasnii L. G., Shcherban O. Ya., Kvasnii Z. V.)	88
1. Study of environmental problems in Ukraine	
2. Analysis of the principles of balanced nature management	
3. Features of the aggravation of environmental problems in Ukraine	
during the warAnalysis of the principles of balanced nature management	90
APPLICATION OF DROSOPHILA MELANOGASTER AS THE TES' OBJECT FOR ASSESSING THE ENVIRONMENTAL STATUS OF ENVIRONMENTAL OBJECTS AND ECOSYSTEMS	
(Klepach H. M.)	.100
1. Use of <i>D. melanogaster</i> as a test object in biological,	
toxicological and ecological studies	
2. Methodological aspects of the application Drosophila melanogaster te systems for assessing the toxicity of xenobiotics and the ecological state of environmental objects	
LOCAL MONITORING OF OIL AND GAS PRODUCTION FACILIT	TEC
IN THE ENVIRONMENTAL MONITORING SYSTEM	IES
(EXAMPLE OF CHEKANSKA OIL AND GAS BEARING AREA)	
(Klid V. V., Khudetsky B. B.)	.134
1. Description of the planned activity	
2. Organization of work on monitoring the state of environmental objects	. 140
3. Research results	
NANOPARTICLES: DEFINITION, TOXICITY, APPROACHES	
TO REGULATION, MIGRATION ROUTES	
IN THE ENVIRONMENT	
(Korniyenko V. I., Khyzhnyak S. V., Voitsitskiy V. M	150
1. Classification of nanoparticles and mechanisms of their toxicity	
Nanoparticle migration pathways in the environment	
	.137
INDICATORS OF WORK ON THE ARTIFICIAL REPRODUCTION	
(STOCKING) OF AQUATIC BIOLOGICAL RESOURCES	
IN THE LOWER REACHES OF THE DNIPRO (ZAPORIZHZHIA)	
RESERVOIR (Kurchenko V. O., Marenkov O. M., Nesterenko O. S.)	
1. Material and methods	
2. Fodder base of the Dnipro (Zaporizhzhia) reservoir	
3. Assessment of the state of fish resources	
4. Recommended stocking volumes of the reservoir	.182

CARRYING OUT WORKS ON ARTIFICIAL REPRODUCTION (STOCKING) OF THE LEFT BANK DRAINAGE CHANNEL IN THE KAMIANSKE CITY (DNIPROPETROVSK REGION, UKRAINE) (Marenkov O. M., Nesterenko O. S., Kurchenko V. O.)
THE INFLUENCE OF DREDGING WORKS NEAR THE LISY AND GREEN ISLANDS ON THE HYDROBIOCENOSES OF AREAS OF THE DNIPRO RIVER (Nesterenko O. S., Marenkov O. M., Kurchenko V. O.)
BIOLOGICAL RESEARCH
IN NEWBORN PIGLETS (Masiuk D. M., Nedzvetsky V. S., Kokariev A. V.)
MODULATION OF IMMUNITY AND BARRIER FUNCTION IN PRE- AND POSTNATAL ANIMAL ONTOGENESIS. IMMUNOTROPIC CHEMICALS EFFECT ON THE PIGLET POSTNATAL DEVELOPMENT (Masiuk D. M., Nedzvetsky V. S., Kokariev A. V.)

2. Modern concepts and application of promising strategies for modulating the immune response in newborn piglets	260
MODULATION OF IMMUNITY AND BARRIER FUNCTION IN PRE AND POSTNATAL ANIMAL ONTOGENESIS. THE ROLE OF ENTEROCYTES IN THE INTESTINAL BARRIER FUNCTION MAINTAINING DURING THE FETAL PERIOD OF ANIMAL ONTOGENESIS (Masiuk D. M., Nedzvetsky V. S., Kokariev A. V.)	269 271
MODULATION OF IMMUNITY AND BARRIER FUNCTION IN PRE- AND POSTNATAL ANIMAL ONTOGENESIS. THE CHARACTERISTICS OF THE MEMBRANE PROTEINS IN THE INTESTINAL EPITHELIUM DURING LATE FETAL ONTOGENESIS (Masiuk D. M., Nedzvetsky V. S., Kokariev A. V.)	
2. The content ratio of several structural proteins in different side of enterocyte plasmalemma during late fetal period	
CHEMISTRY	
THEORETICAL ASPECTS OF STRUCTURING FOR ARAMID TYPE	
POLYMER SYSTEMS CONTAINING ARYL AS WELL AS HETARY	
FRAGMENTS: A COMPARATIVE ANALYSIS (Tokar A. V.)	
2. Spectral parameters of the systems based on aromatic polyamides	
3. Some features of effective stacking interactions	
PHYSICAL AND GEOGRAPHICAL RESEARCH	338
DYNAMICS OF THE METEOROLOGICAL REGIME OF THE ANTARCTIC PENINSULA USING THE EXAMPLE OF THE ANTARCTIC STATION BELLINGSHAUSEN	
(Prokofiev O. M., Chernyshov V. A.)	339
1. Geographical characteristics of the study area	
2. Statistical characteristics of surface air temperature	
at Bellingshausen station	
3. Peculiarities of long-term changes in surface air temperature	
4. Dynamics of average monthly surface air temperature anomalies	
5. Dynamics of average annual surface air temperature anomalies	349

MASSIVE RESULT OF WET SNOW IN THE TERRITORY	
OF UKRAINE OVER THE SEVERAL DECADE PERIOD 1991-	2020
(Pyasetska S. I.)	353
1. Distribution of cases of mass spreading of wet snow deposits	
by individual years of the studied period 1991–2020	356
2. The structure of cases of mass spreading of wet snow deposits	
by the number of stations and regions during 1991–2020	362
CHARACTERIZATION OF THE PHYSICAL AND GEOGRAPH	ICAL
CONDITIONS OF THE FORMATION OF THE FLOW OF THE I	RIVERS
OF THE LEFT BANK OF THE MIDDLE DNIPRO (Sarnavskyi S.	P.) . 377
1. Emergence of the prerequisites of the problem and formulation	
of the problem	377
2. Analysis of existing methods of solving the problem	
and formulating the task	379
3. Topography of the left bank of the Middle Dnipro	379
4. Tectonic structure of the left bank of the Middle Dnipro	382
5. Hydrogeological conditions of the research region	387
6. Soil and vegetation cover within the studied basins	389
7. Climatic features of the research region	401