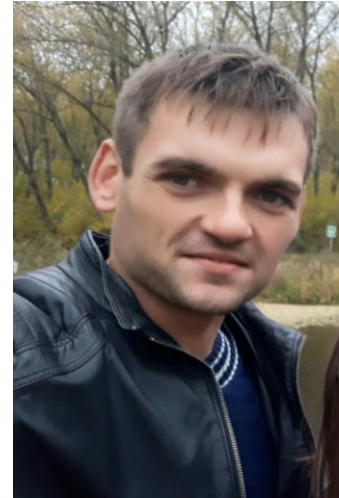


## Portfolio for doctoral students

### Information on doctoral student:

- First and last name **Vladislav Voronin**
- Structural unit (department, institute)  
V.N. Karazin Kharkiv National University, Institute of Environmental Sciences, Department of environmental management and protected areas
- Curriculum title  
103 “Earth Science”, program 11.00.11 – Constructive Geography and rational use of nature resources



### General information on studies:

- Thesis title in English and in local language  
Assessment of ecosystem services of forest landscapes of the Kharkiv region and forecast of their use  
Оцінка екосистемних послуг лісових ландшафтів Харківської області та прогноз їх використання
- Supervisor(s)  
Doctor of Science (Geography), professor, head of Department of environmental management and protected areas **Nadiya Maksymenko**
- Curriculum, year of matriculation  
103 “Earth Sciences”, 3-th year of study
- Academic leaves

## INFORMATION ON ACADEMIC YEAR NO. 1 (OCT.2019-SERT.2020)

### Status of research work:

- Overview of performed tests, collected data, field works, content and preliminary results of data processing.

Work on the PhD thesis research was carried out within the approved individual plan of PhD student. An analytical review of the literature on the research topic.

- 10 most important articles, book chapters etc, with short summary

1. Maksymenko N.V., Voronin V.O. Content of heavy metals in the soils of the pine terrace of the Kharkiv River. Environment protection. collection of scientific articles of the XV All-Ukrainian scientific readings. 2019. – P. 37 – 38.

Within the city of Kharkiv, there are several plant associations that are confined to certain landscapes, including deciduous forests on watersheds. Pine forests are spread on the pine terraces of the Lopan, Uda and Kharkiv rivers.

2. Koval I.M., Voronin V.O. Dendroclimatology as an integral part of dendrochronology. Man and the environment. Problems of neoecology. 2019. №32. P. 85 – 94.

As a division of dendrochronology, dendroclimatology assesses the climate in the past and uses layers of wood and meteorological data, mainly precipitation and temperature, to assess climate change in the future.

3. Maksymenko N.V. Landscape - ecological planning of forest landscapes in Kharkiv oblast / N.V.Maksymenko, I.A.Tkalia, V.O Voronin // Proceedings of the English-Language Scientific Conference «Ecology is a priority», 2020. – P. 78 – 79.

Forest resources are an important regulator of the stability of the ecological balance of the environment for many industries. The article describes the basic tasks for the implementation of landscape-ecological planning.



4. Koval I.M., Voronin V.O. Radial growth reaction *Pinus sylvestris* L. on climate change in the plantations of the Left Bank Forest-Steppe, Forestry and agroforestry. 2019. № 135. P 140-148. <https://doi.org/10.33220/1026-3365.135.2019.14>

The peculiarities of the reaction of radial growth of Scots pine (*Pinus sylvestris* L.) to climate change in the medieval pure pine plantation of the Left-Bank Forest-Steppe have been studied. Standard dendrochronological methods were used. The years of minimal growth were identified: 1975, 1987 and 2013, which is due to the high average annual temperatures of 1975 and 2013 and low winter temperatures of 1987.

#### Meetings with supervisors:

- Date, place  
Department of environmental management and protected areas
- Main topics, tasks  
According to research plan

#### Courses completed during academic year:

- Name of subject, Volume ECTS, University  
Philosophy of Science & Science Methodology, 5 ECTS, V.N. Karazin Kharkiv National University
- Foreign language for PhD students, 10 ECTS, V.N. Karazin Kharkiv National University
- Preparation of scientific publications and presentations of research results, 4 ECTS, V.N. Karazin Kharkiv National University
- Research assistant practice, 3 ECTS, V.N. Karazin Kharkiv National University
- Constructive geography and rational use of nature resources, 8 ECTS, V.N. Karazin Kharkiv National University

#### In-service training in foreign university/laboratory:

- Period and place
- Tasks
- Results

#### Performance at conferences:

- Name, time and place of event
- Title and co-authors of presentation
- Whether oral or poster presentation

#### Performance at doctoral seminars:

- Name, time and place of event
- Title of presentation
- Name, time and place of event
- Title of presentation

#### Performed teaching:

- Name and code of subject/course
- Type of work (practical course, lecture, seminar)
- Title of lectures
- Name and code of subject/course
- Type of work (practical course, lecture, seminar)
- Title of lectures



- Number of classes
- Name and code of subject/course
- Type of work (practical course, lecture, seminar)
- Title of lectures
- Number of classes

#### **Supervision or co-supervision**

- Name of the student,
- Level (BSc, MSc)
- Name of the curriculum
- Title on the thesis

#### **Participation on research projects:**

- Name of the project
- The funding scheme
- Name of leader of the project
- Tasks in the project

#### **Articles published:**

- Articles in Web of Science and/or Scopus-indexed journal
- Articles in international publications

Koval I.M., Voronin V.O. Radial growth reaction *Pinus sylvestris* L. on climate change in the plantations of the Left Bank Forest-Steppe, Forestry and agroforestry. 2019. № 135. P 140-148. <https://doi.org/10.33220/1026-3365.135.2019.14>

- Articles in national publications

Koval I.M., Voronin V.O. Dendroclimatology as an integral part of dendrochronology. *Man and the environment. Problems of neoecology*. 2019. №32. P. 85 – 94.

#### **Public engagement and outreach**

- Publications aimed at a non-academic audience (such as popular science texts, newspaper features etc)
- Public lectures
- Media participation (such as interviews or comments)
- Blogs or social media accounts
- Work on advisory panels for social and cultural engagement;
- Industry or government or non-government organisation

#### **Business and community**

- Patent
- Membership of public or government advisory or policy group or panels

#### **Activity plan for the next academic year**

- Main tasks  
 identify the main research methods,  
 develop a research algorithm,  
 writing articles, abstracts, participation in conferences.

PhD student: **Vladislav Voronin**  
 PhD supervisor: **Nadiya Maksymenko**



## INFORMATION ON ACADEMIC YEAR NO. 2 (OCT.2020-SEPT.2021)

### Status of research work:

- Overview of performed tests, collected data, field works, content and preliminary results of data processing  
Is constructed the research algorithm; are defined the basic research methods.
- 10 most important articles, book chapters etc, with short summary

1. Lisnyak A.A., Voronin V.O. Current state of electromagnetic pollution in the central part of Kharkiv. Kherson. 2020. P. 396 – 399.

Therefore, the purpose of our research is to take measurements components of the electromagnetic field in the central part of Kharkiv and the characteristics of the electromagnetic situation.

2. Voronin V.O. Analysis of methods for assessing ecosystem services of forest landscapes / I International Internet Conference "Current Issues of Formal and Non-Formal Education in Environmental Monitoring and Protected Areas". Kharkiv. 2021. P. 36 – 38.

The mechanism of ecosystem services of forest ecosystems is to interact with all natural components (atmosphere, water, soil). The use of natural resources leads to the deterioration of qualitative and quantitative parameters that should be maintained at the optimal environmental level. The article considers methods for assessing forest ecosystem services.

### Meetings with supervisors:

- Date, place : Department of environmental management and protected areas
- Main topics, tasks : According to research plan

### Courses completed during academic year:

- Name of subject, Volume ECTS, University  
Constructive geography and rational use of nature resources, 10 ECTS, V.N. Karazin Kharkiv National University

### In-service training in foreign university/laboratory:

- Period and place  
14 – 27 June 2021 took an individual scientific internship at the Institute of Ecology of the Carpathians of the National Academy of Sciences of Ukraine, Lviv
- Tasks  
The purpose of the internship was to conduct individual research on topics of PhD thesis
- Results

The study of green infrastructure in Lviv for comparison of approaches to the development and management of green infrastructure in Kharkiv

- Period and place  
14 – 27 September 2021 was held a summer school “Green & Blue Infrastructure in a Post-Communist City” in Yaremche (Ukraine)
- Tasks  
The task of the summer school set to explore and find solutions to environmental problem of The Carpathians regions.
- Results : Preparing group project and making presentations of research. 6 ECTS



### Performance at conferences:

- Name, time and place of event

Abstracts of I International Internet- conference: current issues of formal and nonformal education in environmental monitoring and conservation: Kharkiv, February 26, 2021

- Title and co-authors of presentation

Analysis of methods for assessing ecosystem services of forest landscapes

- Whether oral or poster presentation

Academic and scientific challenges of diverse fields of knowledge in the 21st century: materials of the 9th All-Ukrainian scientific conference. Kharkiv.

### Performance at doctoral seminars:

- Name, time and place of event
- Title of presentation

### Performed teaching:

- Name and code of subject/course
- Type of work (practical course, lecture, seminar)
- Title of lectures
- Number of classes :
- Name and code of subject/course
- Type of work (practical course, lecture, seminar)
- Title of lectures
- Number of classes : 1 group of masters students

### Supervision or co-supervision

- Name of the student,
- Level (BSc, MSc)
- Name of the curriculum
- Title on the thesis

### Participation on research projects:

- Name of the project
- The funding scheme :
- Name of leader of the project :
- Tasks in the project:

### Articles published:

- Articles in Web of Science and/or Scopus-indexed journal
- Articles in international publications
- Articles in national publications

### Public engagement and outreach

- Publications aimed at a non-academic audience (such as popular science texts, newspaper features etc)
- Public lectures
- Media participation (such as interviews or comments)
- Blogs or social media accounts



- Work on advisory panels for social and cultural engagement;
- Industry or government or non-government organisation

### **Business and community**

- Patent
- Membership of public or government advisory or policy group or panels

### **Activity plan for the next academic year**

- Main tasks
  - Preparation of the experiment; conducting a field experiment; calculations according to the obtained results

PhD student: **Vladislav Voronin**  
 PhD supervisor: **Nadiya Maksymenko**

## **INFORMATION ON ACADEMIC YEAR NO. 3 (OCT.2021-SEPT.2022)**

### **Status of research work:**

- Overview of performed tests, collected data, field works, content and preliminary results of data processing
  - Conducting the field stage of the experiment: selection of test sites for green infrastructure, determination of basic environmental characteristics, measurements, laboratory analysis. Are carried out measurements of noise of green zones, analysis of formation of surface runoff, laboratory analysis of surface runoff from green infrastructure objects
- 10 most important articles, book chapters etc, with short summary
- N. Maksymenko, V. Voronin. Analysis of methods of assessment of ecosystem services of forest landscapes. *Socio-ecological resilience across Eurasia innovation for sustainability transition INTENSE Open Science Conference (Online/Tartu, Estonia, 5-7 October 2021)*. Tartu, 2021. P. 34.
- Burchenko S.V., V.O. Voronin, N.V. Maksymenko, I.M. Shpakivska. Internship of Erasmus+ “Intense” for Evaluation of Green Infrastructure and Ecosystem Services of Foresty Landscapes in Lviv *International research-to-practice conference on «Climate services: science and education» Conference Proceedings (22-24 September 2021)*. Odesa, 2021. P. 69-70.

### **Meetings with supervisors:**

- Date, place: Department of environmental management and protected areas
- Main topics, tasks : According to research plan

### **Courses completed during academic year:**

- Name of subject, Volume ECTS, University

### **In-service training in foreign university/laboratory:**

- Period and place
- Tasks
- Results
- Period and place





- Tasks
- Results : Preparing group project and making presentations of research. 6 ECTS

### **Performance at conferences:**

- Name, time and place of event

International research-to-practice conference on «Climate services: science and education»  
 Conference Proceedings (22-24 September 2021). Odesa

- Title and co-authors of presentation

Internship of Erasmus+ “Intense” for Evaluation of Green Infrastructure and Ecosystem  
 Services of Foresty Landscapes in Lviv, Burchenko S.V., V.O. Voronin, N.V. Maksymenko,  
 I.M. Shpakivska

- Whether oral or poster presentation

### **Performance at doctoral seminars:**

- Name, time and place of event

On September 9th, 2021, a seminar was held based on the results of individual research  
 internships for PhD students

- Title of presentation

Internship on the Erasmus + Intens program at the Institute of Ecology of The Carpathians  
 of the National Academy of Sciences of Ukraine

- Name, time and place of event : „My ERASMUS“ October 14th, 2021 p.

- Title of presentation

Internship on the Erasmus + Intens program at the Institute of Ecology of The Carpathians  
 of the National Academy of Sciences of Ukraine

### **Performed teaching:**

- Name and code of subject/course  
 Assessment and conservation of biodiversity
- Type of work (practical course, lecture, seminar)
- Title of lectures
- Number of classes

### **Supervision or co-supervision**

- Name of the student,
- Level (BSc, MSc)
- Name of the curriculum
- Title on the thesis

### **Participation on research projects:**

- Name of the project
- The funding scheme
- Name of leader of the project
- Tasks in the project

### **Articles published:**

- Articles in Web of Science and/or Scopus-indexed journal
- Articles in international publications
- Articles in national publications

**Public engagement and outreach**

- Publications aimed at a non-academic audience (such as popular science texts, newspaper features etc)
- Public lectures
- Media participation (such as interviews or comments)
- Blogs or social media accounts
- Work on advisory panels for social and cultural engagement;
- Industry or government or non-government organisation

**Business and community**

- Patent
- Membership of public or government advisory or policy group or panels

**Activity plan for the next academic year**

- Main tasks

Preparation of research results; publication of research results;

PhD student: **Vladislav Voronin**  
PhD supervisor: **Nadiya Maksymenko**