

Denis Vasiliev

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EDUCATION

2015-2019

The University of Edinburgh

MSc in Biodiversity, Wildlife and Ecosystem Health

Thesis topic: The role of landscape connectivity in maintaining pollinator biodiversity in the North Temperate Zone.

2004-2009

St. Petersburg State Forest Technical Academy

Specialist Degree (equivalent to masters) in Improvement of Landscape

Thesis topic: Analysis of Rundale park composition, Latvia

VOCATIONAL EDUCATION

2014

CIM Professional Diploma in Marketing

2021

Data Management Certificate, ACCENTURE

2022

Certificate in Nature-based Solutions for Disaster and Climate Resilience, SDG Academy

WORK EXPERIENCE

2017 - now

NGO "Nature and People" (www.nature-people.org)

Chairman

Key responsibilities:

- Preparation of project applications;

- Project management;
- Event organization and delivery of public speeches;
- Partnership development;

Charity administration. *Teaching multiple subjects at departments of commerce (including Project Management, Market Research), and IT (subject – Data Analysis and Benchmarking);*

Reading lectures to international student audiences up to 200 people;

Creating educational materials (e.g. lecture slides, handouts) and course programmes;

Evaluation and grading student assignments and exams;

Research work and participation in scientific conferences.

2015 - now

Turiba University

Lecturer

Key responsibilities:

2014

Playground Facilities Ltd, UK

Project Manager

“Leonardo da Vinci” mobility grant (6 month experience exchange in the UK).

2011-2018

KSIL Baltic, Latvia

Export Sales and International Marketing project manager

Key responsibilities:

- Creating business partnerships across European countries. During my career I found partners in France, UK, Sweden and Finland;
- Managing relationships with international partner organizations;
- Organizing company participation in international exhibitions;
- Project Management.

LANGUAGES

English (fluent), French (intermediate), Latvian (fluent), Russian (fluent)

IT SKILLS

Programming languages: R, Python, SQL, JavaScript, HTML, CSS.

Data manipulation, visualization, and statistical analysis tools: R, Pandas, NumPy, Matplotlib, Seaborn, Plotly.

Database Management Systems: PostgreSQL, Oracle SQL.

Data engineering tools: Prefect, DLT Hub, dbt, Docker.

Big Data frameworks: Dask, PySpark, SparkSQL, Databricks, DuckDB, Polars.

Machine learning frameworks: scikit-learn, TensorFlow, Keras, AutoKeras.

Reinforcement learning frameworks: Stable Baelnes3, Gymnasium.

AI frameworks: LangChain, LlamaIndex, CrewAI, AutoGen.

Vector databases and vector stores: ChromaDB, Faiss.

GIS software: QGIS (including PyQGIS), SAGA GIS, Google Earth Engine.

Web and mobile development frameworks: Django, NodeJS, React JS, React Native.

Graphical software: AutoCAD, Photoshop

General purpose software: MS Office (Word, Excel, PowerPoint, Power BI, Power Query, Power Pivot).

PUBLICATIONS

JOURNAL PAPERS

Vasiliev, D. & Greenwood, S. (2020) Pollinator biodiversity and crop pollination in temperate ecosystems, implications for national pollinator conservation strategies: Mini review. *Science of the Total Environment*. Vol. 744, 140880.

Vasiliev, D. & Greenwood, S. (2021) The role of climate change in pollinator decline across the Northern Hemisphere is underestimated. *Science of the Total Environment*. Vol. 775, 145788.

Vasiliev, D. & Greenwood, S. (2022) Making green pledges support biodiversity: Nature-based solution design can be informed by landscape ecology principles. *Land Use Policy*. Vol. 117, 106129.

Vasiliev, D. & Greenwood, S. (2023) The role of landscape connectivity in maintaining pollinator biodiversity needs reconsideration. *Biodiversity and Conservation*. Vol. 32, pp. 3765–3790.

Vasiliev, D., Hazlett, R., Hutchinson, K.L. & Bornmalm, L. (2024) Light at the End of the Tunnel: Innovative Opportunities for Saving Tropical Biodiversity. *Ambio*. Vol. 53(5), pp. 702-717.

Vasiliev, D. & Hazlett, R.W. (2025) Envisaging nature-based solutions as designed ecosystems in the changing world. *Land Use Policy*. Vol. 150, 107438.

SCOPUS INDEXED CONFERENCE PAPERS

Vasiliev, D., Stevens, R. & Bornmalm, L. (2024) Achieving biodiversity net gain through application of nature-based solutions. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 24(5.1), pp. 3–9.

Vasiliev, D., Bornmalm, L. & Stevens, R. (2024) The potential role of geoparks in nature positive agenda. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 24(5.1), pp. 329–335.

Vasiliev, D. (2024) State of biodiversity underpinning food security in Latvia. *Environmental Science and Engineering*. pp. 223–231.

Vasiliev, D. (2024) Evolutionary history of great bustard deserves reconsideration. *Environmental Science and Engineering*. pp. 475–483.

Vasiliev, D., Bornmalm, L. & Stevens, R. (2024) Potential of artificial intelligence to facilitate nature-based solutions for disaster risk reduction. *Lecture Notes in Networks and Systems*. Vol. 1014 LNNS, pp. 395–403.

Vasiliev, D., Bornmalm, L. & Stevens, R. (2024) AI applications in environmental, cultural, and geological heritage conservation. *Lecture Notes in Networks and Systems*. Vol. 1014 LNNS, pp. 385–393.

Vasiliev, D., Bornmalm, L., Stevens, R. & Hazlett, R. (2023) The potential role of modern technology in promoting nature-based solutions addressing global climate change. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 23(4.2), pp. 345–351.

Vasiliev, D., Stevens, R., Bornmalm, L. & Hazlett, R. (2023) The role of landscape design and urban nature-based solutions in addressing global challenges. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 23(6.2), pp. 721–728.

Vasiliev, D., Bornmalm, L., Hazlett, R. & Stevens, R. (2023) Geoparks and cultural development. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 23(5.1), pp. 387–393.

Vasiliev, D. (2022) The role of biodiversity in ecosystem resilience. *IOP Conference Series: Earth and Environmental Science*. Vol. 1072(1), 012012.

Vasiliev, D., Hazlett, R., Stevens, R. & Bornmalm, L. (2022) Landscape design and nature-based solutions: Potential for integration. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 22(6.2), pp. 575–581.

Vasiliev, D., Hazlett, R., Stevens, R. & Bornmalm, L. (2022) Biodiversity, geodiversity and cultural diversity: The nexus. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 22(6.2), pp. 495–501.

Vasiliev, D., Hazlett, R., Stevens, R. & Bornmalm, L. (2022) Sustainable agriculture, GIS and artificial intelligence. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 22(5.1), pp. 441–448.

Vasiliev, D., Stevens, R., Hazlett, R. & Bornmalm, L. (2022) Novel applications of GIS and artificial intelligence in forest restoration. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 22(3.1), pp. 365–371.

Vasiliev, D. (2022) Road infrastructure and biodiversity conservation. *Lecture Notes in Networks and Systems*. Vol. 410 LNNS, pp. 371–377.

Vasiliev, D. (2022) The role of e-commerce in organic farming in Latvia. *Lecture Notes in Networks and Systems*. Vol. 235, pp. 805–811.

Vasiliev, D. (2021) Implications of pollinator biodiversity decline for food security, economy, and pollinator conservation policies. *E3S Web of Conferences*. Vol. 259, 01006.

Vasiliev, D., Stevens, R.L., Bornmalm, L. & Ivanov, A. (2021) Potential applications of modern GIS technology in geopark assessments. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 21(7.2), pp. 885–892.

Vasiliev, D. (2021) The role of landscape design and land art in community engagement. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 21(7.2), pp. 893–899.

Bornmalm, L., Stevens, R.L., Ivanov, A., Mitina, E.A. & Vasiliev, D. (2021) Geopark comparisons and functional modeling. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 21(7.2), pp. 843–850.

Vasiliev, D. (2021) Potential role of modern GIS technologies in achieving the UN sustainable development goals. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 21(5.1), pp. 183–190.

Vasiliev, D. (2021) The need for pan-European conservation planning based on remote sensing techniques. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*. Vol. 21(5.1), pp. 267–275.

Vasiliev, D. (2021) The use of digital communications tools by Latvian environmental NGOs. *Vide. Tehnologija. Resursi - Environment, Technology, Resources*. Vol. 1, pp. 250–254.

Vasiliev, D. (2021) Usage of digital communications tools within organic farming industry in Latvia. *Engineering for Rural Development*. Vol. 20, pp. 1449–1454.